

Community Engagement

Why Is It Important?

Active engagement and community development are essential for building trust, establishing goodwill and maintaining positive relationships with the communities where we operate. By engaging with local communities and stakeholders, we understand their needs, reduce conflicts and minimise the risk of project delays or cancellations. This demonstrates our commitment to sustainable operations and nurtures a positive reputation. Investing in local communities stimulates economic growth, improves quality of life and creates a more supportive environment for our business. Building strong partnerships creates shared value contributing to our overall success and sustainability.

What Is Our Approach?

At PETRONAS, we are committed to building strong, resilient and empowered communities through community engagement efforts. Our initiatives aim to improve the standard of living, enhance livelihoods, promote equitable growth and increase environmental awareness. We take a structured and systematic approach by developing a community engagement strategy that aligns with our business objectives and values while addressing the needs and aspirations of surrounding communities. Our Social Impact programmes focus on education, community well-being and development, and the environment, to encourage sustainable livelihoods and equip communities with the necessary skills for a just energy transition, a fair and inclusive process that aims to ensure no one is left behind.

Identification Process for Social Impact Activation



Positive Social Impact

PETRONAS invested close to RM900 million for our Social Impact activations in 2022, benefitting over 1.5 million beneficiaries in Malaysia and internationally. The goal of these investments is to champion the pursuit of knowledge among students and educators, provide access to essential resources for underserved communities and to empower them to reach their full potential as well as creating awareness and promoting the importance of biodiversity conservation.

Yayasan PETRONAS also conducts a significant portion of our Social Impact activations across the country, benefitting over 116,600 beneficiaries with an investment of around RM49.53 million.

Three Key Areas of Social Impact Activations

EDUCATION

- Develop knowledge and capabilities to support nation-building by enhancing the skills and ability of individuals and organisations to help them achieve success.
- This includes ensuring access to quality education for all, regardless of their income level, gender, ethnicity, physical and mental abilities to improve education opportunities and levels.

COMMUNITY WELL-BEING AND DEVELOPMENT

- Improve well-being and contribute to community development by promoting the socio-economic development of local communities, support initiatives that lead to good physical and mental health and improve the safety of local communities.
- This includes creating pathways for sustainable livelihoods and better economic opportunities for vulnerable underserved communities.

ENVIRONMENT

- Conserve natural resources for current and future generations by protecting and preserving the natural environment to maintain biodiversity.
- Provide opportunities for communities to contribute to the reduction of GHG emissions and adapt to potential effects of climate change.

Value Creation in 2022

Education – PETRONAS Powering Knowledge

Quality education is a fundamental building block for creating a strong workforce, empowering communities and supporting the nation’s socio-economic growth. To this end, we have developed a range of programmes that cater to students from primary to tertiary levels, as well as the general public, with a focus on Science, Technology, Engineering and Mathematics (STEM). We have also initiated programmes to improve educational and vocational opportunities for all.

In 2019, we set a target to achieve 24,100 beneficiaries from PETRONAS’ Educational Programmes by 2024. This was in line with our objective to provide access to quality education, as well as strengthening teachers’ capability in STEM and to serve as role models in enhancing higher order thinking skills through STEM which enables communities to progress collectively as a nation. In 2022, we managed to achieve the target two years ahead of schedule, reaching 42,839 education beneficiaries cumulatively from 2020 to 2022. The education programmes include our PETRONAS Education Sponsorship Programme (PESP), *Program Duta Guru* (Teacher Ambassador programme) and the Vocational Institution Sponsorship and Training Assistance (VISTA) programme, among others. Moving forward, we aim to continue providing better opportunities with sustainable impact to underprivileged students, and are in the process of developing other Social Impact measurement systems. We will be focusing on high impact initiatives through strategic partnerships and collaborations, and aspire to include more beneficiaries both domestically and internationally, especially in the areas where we operate.


1. Learning Institutions

Our commitment to nation-building is strongly linked with our industry-recognised learning institutions, which contributes to producing skilled talents for the workforce of the future and providing innovative solutions that enable Malaysians to achieve their full potential. By driving people forward through education, we are actively contributing to the growth and development of the nation, building a brighter future for all.

i. Universiti Teknologi PETRONAS (UTP)

A wholly-owned subsidiary of PETRONAS, UTP has produced more than 23,000 graduates from over 60 countries. It has emerged as one of the main feeders within the region producing competent talent for the workforce.

- Offered **60** academic programmes (one foundation, **13** undergraduate and **46** postgraduate programmes).
- **6,648** students were enrolled in UTP, with **1,217** in foundation programmes, **4,340** in undergraduate courses and **1,091** in postgraduate studies.
- **1,438** students graduated.



ii. Institut Teknologi Petroleum PETRONAS (INSTEP)

INSTEP has become an internationally-recognised learning solutions partner with customers from over 35 countries. It has successfully produced more than 130,000 job-ready technical workforce serving in more than 30 refineries and petrochemical plants, in addition to 100 platforms globally. INSTEP continues to push boundaries by providing technical talents with innovative solutions allowing them to grow with their respective organisations and achieve their potential.

- Offered over **70** programmes, with **11,660** enrolment.
- **116** students, sponsored by Sarawak Petchem Sdn Bhd, graduated from the Technician Training Programme.

iii. Akademi Laut Malaysia (ALAM)

ALAM offers courses with comprehensive curriculums to prepare its graduates as officers, engineers, researchers and consultants in the global maritime industry.

- **550** students enrolled in ALAM's cadetship diploma programme, maritime studies programme, able seafarers programme, advanced post sea courses and short courses.

iv. Kimanis Training Centre (KTC)

We established the KTC in collaboration with the Sabah State Government to assist in developing local youths' technical capabilities in fields related to the oil and gas industry. KTC has since produced qualified skilled workers to contribute and benefit from the East Malaysia Development Plan under the Sabah-Sarawak Integrated Oil and Gas Project (SSIOGP).

Currently managed by INSTEP under PETRONAS Technical Training Sdn Bhd (PTTSB), KTC is the first institution in Sabah to be recognised as an Accredited Centre by the Department of Skills Development under the Ministry of Human Resources to conduct a three-year full-time trainings in Industrial Instrumentation and Control, System-Monitoring and Control (Level 4) and Malaysian Skills Diploma (DKM). PETRONAS has invested RM34.6 million since KTC's inception in 2011, producing 231 graduates.

- Invested **RM4.4 million** in developing the capabilities of Sabahans.
- **20** students started their studies at KTC.

Positive Social Impact

2. Collaboration with Higher Education Strategic Initiatives (CHES)

We collaborated with Malaysia's higher education sector to bridge industry-academia knowledge sharing in technical areas aligned with PETRONAS' Education Agenda and Sustainable Development Goals (SDGs) under quality education. CHES became one of the channels for us to share our knowledge and best practices in project management, engineering solutions, technology and digital delivery as part of our commitment to contribute to the nation.

Through these initiatives, we aim to create more platforms for Technical Professionals (TPs) and Subject Matter Experts (SMEs) to perform Technical Professional Excellence responsibilities and build rapport with the Higher Education sector and young Malaysian top talents in creating awareness and interest in the oil, gas and energy industry.

- We conducted:
 - more than **90** webinars and face-to-face sessions covering topics on engineering, technology and digital, as well as Career Talks with all **20** universities under the CHES initiative;
 - syllabus or curriculum reviews with seven universities;
 - adjunct lectures at six universities;
 - internship and industry visits, including a site visit to Malaysian Refining Company Sdn Bhd (MRC SB);
 - the Digital Young Graduates Programme (YGP) where seven Universiti Teknologi Malaysia (UTM) students received work-based learning placements; and
 - three oil and gas conferences and events.
- We provided industry supervisors and coaches for students' final-year projects, established mentor-mentee programmes and included them in the universities' industrial advisory and accreditation panels.
- We partnered with four universities for research collaborations in the oil, gas and energy field.

3. Proactive engagement with students

We continuously engage with students from primary to tertiary levels through several programmes to raise awareness on the importance of gaining knowledge, fostering interest in STEM and exposing students to opportunities in the oil, gas and energy industry.

i. Discover PETRONAS at School (DPS)


Since its establishment in 2014, PETRONAS has invested RM2.7 million, benefitting 24,000 students. The programme helps secondary school students learn more about the oil, gas and energy industry and the various career opportunities available across PETRONAS. This programme serves as a guide for students to choose the right education sponsorship application course, matching their career and future aspirations.

Through DPS, we engage with secondary school students to:

- strengthen knowledge and understanding of the PETRONAS Education Sponsorship Programme (PESP);
- instil interest in the oil and gas industry and related careers;
- build and enhance PETRONAS brand awareness and image;
- establish a sustainable network and mutual relationship with the Ministry of Education, schools and students.

DPS consists of career forums and booths where our volunteers conduct interactive engagements and experimental learning.

- Over **2,000** students benefitted from the DPS programmes conducted at four centralised locations: Kota Samarahan and Mukah, Sarawak; Kuala Nerus, Terengganu and Segamat, Johor.
- **52** schools participated in DPS 2022.
- Invested about RM1 million.
- **92** PETRONAS employees volunteered.



ii. PETRONAS Vocational Institution Sponsorship and Training Assistance (VISTA)

PETRONAS VISTA was introduced in 1992 as a flagship programme to assist in delivering technical courses at selected institutions under our Technical and Vocational Education and Training (TVET) process, emphasising on job-oriented learning and training.


We collaborate with government agencies and state governments of the selected institutions on infrastructure, equipment, trainers, or programmes readiness (depending on needs) to ensure the chosen technical courses will be delivered successfully as per the oil and gas industry requirements.

In 2022, 18 institutions were identified to be part of the VISTA programme. These institutions are expected to produce more than 1,000 technical talents annually.

Six new certifications have been introduced under the three-year programme implementation (2023-2026): Mechanical Fitter, Rigger, Crane Operator, Welding Inspector, Diploma in Oil and Gas, and Diploma in Process.

Since its inception, VISTA has benefitted more than 12,000 graduates with over RM90 million invested and has collaborated with 27 TVET institutions all over Malaysia.

Invested **RM1.6 million** in VISTA.



2022

Over **400** individuals across Malaysia benefitted from this programme, gaining technical and vocational capabilities.

iii. Digital Equity Programme (DEP)

Introduced in 2022, the Digital Equity Programme (DEP) was designed by Petrosains to increase STEM interest among students in Sabah, Malaysia, cultivating 21st century and technical skills in a fun and engaging manner to prepare participants for the workforce of the future.

This initiative exposed teachers to the innovative ways they can explore to ease the teaching process and guide students in enhancing their digital comprehension level, adding value to everyday solution design and curation. Students also gained a better understanding on the four elements of STEM, enhanced their problem-solving skills and discovered career opportunities in the field.

We upskilled and enhanced the capacity of teachers in technical-and digital-related skills, as well as democratised digital creation activities for students from low-income families to deepen their interests in STEM. Teachers and students also were given opportunities to expand their knowledge through the formation of a district-level committee and school-level technology clubs that are linked to other key players in the ecosystem.

- Invested around **RM500,000** in DPS.
- **80** teachers and **82** students from **39** secondary schools in Sandakan and Tawau, Sabah benefitted from the two sessions conducted.

Positive Social Impact

iv. BeDigital Bootcamp

We curated the BeDigital Bootcamp to strengthen young graduates' digital literacy and help them prepare for the jobs of the future. The intensive learning exposure brings participants through the concepts of design thinking, data storytelling, transitioning into the working world, digital entrepreneurship and concluding with a shark tank session in front of expert evaluators. Outstanding participants are offered roles in PETRONAS or its recruiting partners.

In order to elevate the employability of graduates and ensure they are future-ready, we collaborated with Sabah state government and other partners: PETROSAINS Sdn Bhd, SEEd.Lab, Center of Applied Data Science, Tata Consultancy Services, Microsoft, Universiti Malaysia Sabah, Universiti Teknologi MARA Sabah, University College Sabah Foundation, Sabah Net Sdn Bhd, Malaysia Board of Technologists, KLCC Urusharta Sdn Bhd, Sabah Energy Corporation, Four Seasons and Internspoon.

- Recorded more than **60** participants.
- **50 per cent** of total participants stood out during the bootcamp and received a conditional offer each from PETRONAS and other companies.

v. Young Aspiring Mentees in STEM (YAMS)

YAMS is a mentoring programme by PETRONAS' young professionals that was established in 2022. We introduced this programme to coach and empower upper secondary school students in Sabah to help them achieve their potential by pursuing STEM careers and become future leaders. Our goal is to drive long-term holistic development of the Sabahan workforce, as this is part of PETRONAS' efforts in caring for the communities that we serve.

This programme consists of virtual check-ins, checkpoints and physical camps, where each young professional is assigned two students to coach. Mentors also received comprehensive training and clear guidance on the syllabus and resources to coach their mentees.

- Invested more than **RM170,000** in YAMS.
- Identified **40** science students from disadvantaged families in upper secondary schools in Sandakan and Tawau, Sabah.
- **20** PETRONAS young professionals were chosen as volunteers to mentor.

vi. PETRONAS Leading Women Network (PLWN) – UTP Mentoring Programme

The PLWNxUTP Mentoring Programme started in 2021 to mentor UTP students selected by the university. Through this initiative, students are mentored by experienced mentors to build their confidence, learn networking skills and to be flexible, adaptable and empathetic at work.

- **20** mentors from technical and non-technical backgrounds were identified from across PETRONAS.
- **20** mentees from petroleum engineering and petroleum geoscience courses benefitted from the programme.
- Four online sessions were conducted throughout the programme, with about 100 participants on average per session.

vii. Young Technologist Programme

This programme is aimed at increasing lower-secondary students' confidence in enrolling in STEM programmes and securing jobs in the future work environment. The programme focused on improving their competency in Communication, Collaboration, Critical Thinking, Creativity (4Cs).

- **2,040** students from Terengganu benefitted from this programme.

viii. Engen Mathematics and Science School

We designed the Engen Mathematics and Science School to improve the education quality and expand access to education or training for students in South Africa. The programme offers free Mathematics, Physical Science and English classes to students from grades 10 to 12.

3. Providing Opportunities through Student Sponsorships and Bursaries

We recognise that the path to gaining knowledge and pursuing tertiary-level education can be challenging for certain students. We assist through sponsorships to help the younger generation gain access to education and vocational learning opportunities.

i. Yayasan UTP

Yayasan UTP (YUTP) was established in 2007 to promote and enhance education while supporting the development of UTP as an academic institution of excellence. In addition to its role in seeking donations and forging partnerships, it also allows students to pursue knowledge, especially in science and technology. The assistance also helps students prepare to be part of the future workforce in an increasingly challenging global economy.

Since its inception in 2012, Yayasan UTP has provided financial assistance to 2,423 beneficiaries through Yayasan UTP's scholarships and bursaries.



ii. Tabung Amanah Zakat UTP (TAZU)

We believe in making education accessible to all by providing opportunities through *zakat* (alms) collection from UTP and PETRONAS employees. 50 per cent of the collection is returned to TAZU, which is then distributed to underprivileged students to ensure their continuous development and sustainable education.

Since TAZU was incepted in 2011, it has provided financial assistance to 5,600 beneficiaries through tertiary education sponsorship at UTP.

- **1,788** deserving students at UTP received financial assistance from the *zakat* contributions to cover university fees (registration, academic and hostel fees) and special assistance (laptop allowance and stipends).
- Introduced a Full Foundation Sponsorship Programme to sponsor **100** Asnaf students to further their studies at UTP.

iii. Building Brighter Futures Programme

This programme provides financial assistance to indigenous students in Canada. The programme gives indigenous learners the ability to complete post-secondary education. It also includes mentoring, youth conferences and educator support.

iv. Back to School (BTS)

We continued to reach to primary and secondary school students via Yayasan PETRONAS to help them prepare for the new academic year with essential school supplies. While the programme lessens the financial burden of their B40 (below the poverty line) parents, the school supplies are also intended to raise students' enrolment and participation.



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4. Creating Conducive Education Environments

A conducive learning environment, with the right tools, materials and space allows students to feel empowered to acquire knowledge. Recognising the importance of a conducive environment, we provide a proper infrastructure for students as part of our contributions to nation-building.

i. Facilities Improvement Programmes in Iraq

The development of three new classrooms and renovation of the main hall of the teachers' Union office has provided access to quality education and safe, non-violent, inclusive and effective learning environments for over 500 students between seven to 12 years old in the surrounding Garraf Contract Area.

ii. Construction of MARA Junior Science Colleges (MRSM)

We are collaborating with the Sabah and Sarawak state governments (via Yayasan Sarawak) and Majlis Amanah Rakyat (MARA) to construct two MARA Junior Colleges in Ranau, Sabah and Bintulu, Sarawak. This collaborative effort aims to provide students access to quality education and promote their interest in STEM while developing their talents. Each MRSM can accommodate 450 students. Construction began in 2019 and the first student intake by MARA is targeted to be in Q1 2024.

The locations and sites of both MRSMs were determined and provided by the state governments. The buildings were designed according to the facilities requirements by MARA, with PETRONAS as the main sponsor for the overall construction, provision of furnishings and equipment. Local consultation firms and contractors were hired to support both projects.

The colleges will be handed over to the state governments and MARA for operation upon completion. It will also be the fifth MRSM in Sabah and the fourth MRSM in Sarawak.

- Achieved **94 per cent** physical progress for MRSM Bintulu.
- Achieved **94 per cent** physical progress for MRSM Ranau.
- Invested more than **RM220 million** for both MARA Junior Colleges.

iii. Bridging the Online Learning Divide Programme

We remain committed to supporting students from all backgrounds despite the challenges posed by the COVID-19 pandemic, which forced schools to close and shift to online learning. Students from low-income communities (B40) needed help with their studies due to a lack of internet access and relevant devices. We have provided internet-enabled digital devices to students from B40 communities in Perak, Selangor, Johor, Kelantan, Sabah and Sarawak to help them engage in remote or hybrid learning and gain immediate learning support in early English literacy.

Lack of internet access and relevant devices resulted in dire challenges for students from low-income families. We responded to the need by providing internet-enabled digital devices. The tablets were equipped with digital resources and tutoring took place via WhatsApp, enabling volunteers based anywhere in Malaysia to tutor students nationwide.

- **2,000** underprivileged students from **B40** communities received tablets with a year of internet connectivity.

5. Building STEM Awareness Across Our Communities

PETROSAINS Sdn Bhd is our wholly-owned subsidiary that leads and steers the business and visit operations of Petrosains, The Discovery Centre and the PETRONAS Twin Towers.

i. Petrosains, The Discovery Centre

Through Petrosains, The Discovery Centre, we strive to deepen our relationships beyond school walls and build trust by engaging with the community through our interactive, experiential and hands-on programmes at the Centre.

Since its establishment in 1999, Petrosains has welcomed around eight million visitors as of 2022. The centre, approximately 7,000 square metres, hosts about 300 interactive exhibits within specific themed galleries. In 2022, Petrosains recorded the highest number of visitors since its establishment with 515,982 visitors.

As a PETRONAS Education initiative, Petrosains, The Discovery Centre provides an immersive learning experience, especially in science, technology and sustainability. We are committed to making a positive social impact and are driven to do our part in building a society equipped with skills needed for the future, in line with The PETRONAS Education Agenda.

We also aim to educate our people on the evolving digital era driven by the convergence of advanced technologies such as robotics, artificial intelligence (AI) and the internet of things (IoT) to enable the creation of innovative solutions towards shared progress for all, where no one is left behind.

Petrosains has positioned itself as a credible solution partner to various stakeholders in delivering impactful programmes, particularly in STEM Education, business and sustainability-related thematic learning. Some of these programmes include Discover PETRONAS @ Schools, Digital Equity Programme, BeDigital Bootcamp, Government-Linked Companies Open Day, PETRONAS Cub Prix, Meet The Expert, PETRONAS StreetSmart Design Thinking Challenges and Café Mesra operation.

Petrosains collaborated with:

- Ministry of Education for the *Seminar Pendidikan STEM Digital* session for educators, and Educators Brunch with the State Education Department;
- Mercedes-Benz for The Vision of an Electric Future and Sustainable Mobility for Tomorrow programme to inspire secondary and tertiary students to proactively think about responsible energy planning towards sustainable and safer living; and
- Offshore Petroleum Industry Training Organisation (OPITO) for My Energy Future



- Delivered learning programmes to **6,479** beneficiaries.
- Scored **85 points** (above 80-point baseline) for delivering five Learning dimensions knowledge and understanding; skills; attitude and values; enjoyment, inspiration and creativity; activity, behaviour and progression.

LIVE, an OPITO-led STEM project designed to engage and inspire the energy leaders of the future. School students from across Malaysia participated in the event and showcased their futuristic innovations.

Petrosains expanded its learning approach on digital platforms especially in the aftermath of the COVID-19 pandemic by partnering with content partner DELIMA (an online learning platform by Malaysia’s Ministry of Education), conducting Virtual Visit via PIXEL and SkyWalk 360, and other virtual learning programmes leveraging open platforms and social media. These activations netted 107,393 in virtual reach.

Petrosains learning includes creating awareness that resonates with PETRONAS’ material topics towards a sustainable future.

In 2022, Petrosains delivered sustainability-based content to enrich the school curriculum and equip the public by providing valuable hands-on learning experience using world-class activities designed to upskill and increase understanding of STEM. Contents included Energy Capsule through PETRONAS Innovation Catalyst Project (PICP) and thematic programmes: Chemsolve; Carbon Capture, Utilisation and Storage (CCUS); Digital, Automation and Robotics (DART); Chemical Energy Solutions. This underscores Petrosains’ commitment to support net zero carbon emissions by 2050 by creating positive social impact.

ii. Petrosains Playsmart™ and Maker Studio

Petrosains PlaySmart™ is an outreach programme implementing a hands-on learning approach in Johor, Pahang, Sabah and Sarawak. It acts as an education hub for surrounding communities through partnerships with the local state libraries in Malaysia. The various locations make STEM more accessible, fostering awareness and

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increasing STEM literacy where Petrosains PlaySmart™ played its role in extending the immersive STEM learning experience to the community.

Petrosains PlaySmart™ also offers the Maker Studio, a space for hands-on and creative activities to encourage the public to design, experiment, build and invent as they engage in Science, Technology, Engineering, Arts and Mathematics (STEAM) through coding, design thinking, prototyping and robotics.

- Petrosains PlaySmart™ was able to reach out to more than **269,000** visitors physically via its centres in Johor, Pahang, Sabah and Sarawak. Outreach programmes with local communities were held consistently through collaboration with the respective State Government and PETRONAS Regional Offices.
- Petrosains accelerated STEM learning through its Visit to School and invitation programmes, allowing for interaction with students, community and general public outside of its physical facilities while also providing STEM learning opportunities. These initiatives generated **12,707** reach in 2022.
- Petrosains PlaySmart™ is also positioned as a credible solution partner through the Inspire Together Programme, which allowed for a wider range of **20,000** reach in the communities, providing access to STEM learning and experiences to underprivileged groups.

Petrosains PlaySmart™'s extension, the Maker Studio is currently available at Petrosains' main centre in Kuala Lumpur and Petrosains PlaySmart™ in Johor, Sabah and Sarawak, with the Maker Studio Tanjung Aru, Sabah operations officially handed over to the Sabah State Library in 2022.

iii. Petrosains RBTX Challenge

The Petrosains RBTX Challenge is another effort to boost interest in STEM, allowing robotics enthusiasts to compete with their robotic creations in an open-source software

environment. The Sports and Arts Education Division, Ministry of Education, Malaysia, endorses the challenge as it aims to democratise STEM learning by providing participants, regardless of backgrounds, with unlimited open-source coding software and a diverse range of robotics equipment. Since its inception in 2018, it has attracted more than 7,000 participants of all ages.

In 2022, the programme continued to create value for Petrosains and its beneficiaries not just through traditional financial measures but also by bringing intangible value to communities, our brand image and through the creation of new innovations guided by the Malaysia Education Blueprint 2030, National Fourth Industrial Revolution (4IR) Policy thrusts, PETRONAS Education Framework, Four Sustainability Lenses, and Petrosains Strategic Framework - Progress.30.

Besides supporting the vision and aspirations of the Malaysia Education Blueprint through mastering higher order thinking skills and the ability to innovate, the challenge is also tailored to provide school students with basic designing, coding and sensor training in robotic development.

Petrosains RBTX Challenge 2022 contributed to the increased value in STEM learning for robotics enthusiasts through partnership with professional advisors from academic institutions and industry players. To prepare interested participants for the signature robotics competition, Petrosains' working team travelled across Malaysia months ahead of the competition to conduct workshops, mainly in areas such as basic designing, coding and sensor training.

- Reached out and provided training for **2,334** young people.
- Attracted 28 international teams involving **77** participants from Indonesia, Tunisia and the United States of America (USA).
- A total of **1,035** teams participated, with over **3,000** taking part in the competition and **243** teams advancing to the Grand Finals in Kuala Lumpur.

The strong participation in the Petrosains RBTX Challenge 2022 is testimony to the efforts towards democratising learning for all.

Malaysia Book of Records awarded a certificate of achievement to Petrosains for having the **Most Participants in a Robotic Interactive Learning Event** for RBTX2022.

2. Programme Duta Guru

Yayasan PETRONAS' flagship programme, *Program Duta Guru*, is a nationwide industry-linked programme conducted to strengthen the capabilities of STEM teachers serving schools with a majority of B40 students.

➤ **253** teachers completed the two-year programme and took on their roles as *Duta Guru* (Teacher Ambassadors) to increase STEM interest and competency among students in secondary schools.

empowerAkademik

We continued to reach out to students from less privileged communities through Yayasan PETRONAS' empowerAkademik programme to improve their academic performance for *Sijil Pelajaran Malaysia (SPM)* or the Malaysian Certificate of Education and enable their progression towards tertiary education. It is a comprehensive programme that takes a three-pronged approach, involving students, teachers and parents to empower the communities via the academic path to create a more balanced, inclusive society.

Supported **1,000** SPM students through the *empowerAkademik* programme.

94.7 per cent (947 students) passed SPM 2021 with **5.7 per cent** achieving 5As or more.

100 per cent (57 students) of 5A students and **94** per cent (892 students) of those that obtained 4As and below secured placements in tertiary institutions.

Community Well-being and Development – PETRONAS Uplifting Lives

We continuously reach out and extend a helping hand to our communities to help them empower themselves through skills and entrepreneurship training, access to better health and other programmes to improve their quality of life.

Memampankan Ekonomi Asas Rakyat (MEKAR) Programme

Through Yayasan PETRONAS, we uplifted the livelihoods of the B40 community in Kelantan, Kedah, Terengganu, Johor, Pahang, Perak and Sabah leveraging the MEKAR Programme. Under the programme, we provided aid under three categories:

- i. Basic necessities
We provided the communities in Pitas, Sabah and Kluang, Johor with access to water and solar power to help them improve their quality of life.
- ii. Skills and Entrepreneurship Development
We uplift the lives of B40 communities through the provision of skills and entrepreneurship development programmes. The programme which runs over two years is also embedded with a culture of innovation to help them improve their income streams. In 2022, we completed the earlier cohorts in Kedah, Perak, Kelantan, Terengganu, Pahang, Johor and Selangor.
- iii. Go-to-Market
We also helped communities improve their income generating skills with entrepreneurial training to enhance their quality of life and ensure a sustainable income stream.



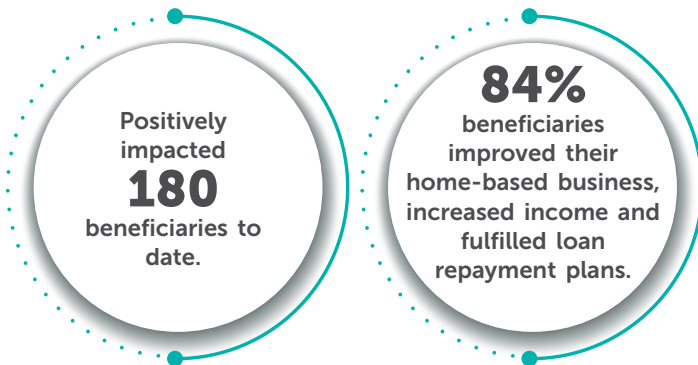
Positive Social Impact

Improving Youth Employability in Sabah

The Entrepreneurship Programme helps local entrepreneurs expand their business scale and find new market opportunities. The programme consisted of five training modules on ideation, conceptualisation, marketing strategy and business analysis which aims to equip participants with basic entrepreneurial skills. Agrobank provided information on financial management.

Working closely with the Giatmara Training Programme, we aim to upskill local youth and improve their employability. Youths from Lawas and Baram were exposed to courses such as welding and metal fabrication, automotive technology and building technology through the Towards Uplifting Lives Programme (TULiP).

- 22 participants from Lawas completed the Entrepreneurship Programme.
- 10 local youths graduated from the Giatmara Training Programme.



MyLady Assistance Scheme

Yayasan PETRONAS supported the MyLady Assistance Scheme programme to empower single mothers and women living with HIV to get out of poverty. Through this scheme, these women were given access to microcredit business loans, entrepreneurial training and peer support, to assist them with their home-based enterprises.

- 30 single mothers and women living with HIV received assistance through the MyLady Assistance Scheme.

SAGA Health Access Programme (SHAPE)

Through the Malaysia Aids Foundation (MAF) SAGA Health Access Programme (SHAPE), Yayasan PETRONAS assisted B40 patients with HIV, Thalassemia and Paediatric illness from rural Sabah to attend their treatment appointments by subsidising the high logistical costs to local hospitals or clinics.

- Assisted **180** patients under the SHAPE programme.
- **95 per cent** attendance rate (HIV beneficiaries) adhered based on scheduled appointments.

Supporting Cancer Research

Yayasan PETRONAS continued to support cancer research for the Asian population and paediatric patients by providing grants to Cancer Research Malaysia (CRM) and Hospital Canselor Tuanku Mukhriz (HCTM) in 2022. These grants will drive new research to address cancer more effectively, from prevention to detection and treatment.

Community-based Disaster Risk Management

Yayasan PETRONAS collaborated with the National Disaster Management Association Malaysia (NADIM) to introduce Community-Based Disaster Risk Management (CBDRM) training to local communities in Tumpat, Kelantan and Pekan, Pahang. Seasonal floods impacted both areas for several years.

CBDRM aims to strengthen community resilience by enhancing their capabilities and skills in pre-disaster training provided to help communities prepare for disasters to minimise its impact on their assets and lives. The training also allowed local emergency responders and agencies to forge stronger relationships.

- Equipped **200** participants, including community leaders with pre-disaster training.

Training for People with Disabilities

The Perlis Special Teens Centre (PeSTeC) under the management of the Perlis Special Children Community Rehabilitation Organisation upgraded its facilities as a result of a grant received from Yayasan PETRONAS in 2022. This further supported PeSTeC in helping special needs teenagers adapt to society by providing them with skills training and instilling a sense of independence.

Breaking the Cycle of Poverty Among Malaysia's Indigenous Communities and Extreme Poor

PETRONAS collaborates with a dedicated government department for the indigenous community (*Orang Asli*), *Jabatan Kemajuan Orang Asli* (JAKOA) and NGOs for a programme aiming to uplift the lives of *Orang Asli* across Malaysia. The programme focuses on providing access to clean energy, clean water and education.

- The programme was expanded in 2022 to include access to clean water and learning programmes.



In 2022, installing solar power systems under the programme impacted 156 Orang Asli homes across six villages. Each household benefitted from six hours of additional electricity and light per night, adding six hours of productivity which the community can spend on their daily routines such as domestic chores and other community activities. The installations have also reduced the community's energy expenses to approximately RM400 per month for each home. They previously purchased diesel fuel generator sets for their power supply.

As of 31 December 2022, more than 232,000 productivity hours were achieved from the installations and a savings of RM406,152.

The programme was expanded in 2022 to include access to clean water and learning programmes. The pilot solar-powered filtration systems were completed in Kampung Gakuyah in Bera, Pahang. Three units of the system provide clean water to 12 homes for each unit.

Access to clean water protected the community from waterborne diseases, reducing their healthcare expenses and improved the mortality rate among children. It also increased the community's awareness of personal hygiene and healthy living.

Meanwhile, a pilot learning programme was completed in Kampung Kepong in Bentong, Pahang. This programme is ready to be scaled-up further in 2023.

MERCY Malaysia

We are committed to doing our part in assisting those in need. We contributed to MERCY Malaysia to support its flood relief efforts in Pakistan and offered aid through Yayasan PETRONAS to flood-prone districts throughout Malaysia.

- Contributed **RM2.5 million** to MERCY Malaysia for flood relief assistance in Pakistan.
- Delivered **5,000** care packages worth close to RM1 million through Yayasan PETRONAS to flood prone districts in Malaysia.

SEEd.Lab Social Enterprise Programme

Through our end-to-end incubator programme, Social Enterprise Education Lab (SEEd.Lab), in partnership with Tata Consultancy Services, we tackle social pain points by building self-sustaining social enterprises that forge solutions for specific beneficiaries within communities. For the second cohort, our social enterprises address specific social challenges that exist within five domains namely Food and Agriculture, Health and Hygiene, Education and Skills, Personal and Financial Security; and Entrepreneurship in Sabah. The first of its kind in comprehensiveness in Malaysia, SEEd.Lab has enriched the lives of over 13,000 people and counting.

Yayasan PETRONAS' festive programme

- Provided more than 11,800 families and nine welfare homes with essential food supplies and festive hampers via Yayasan PETRONAS' festive programme during major festive celebrations.

Yayasan PETRONAS' Homeward programme

- Donated home medical equipment worth RM2.2 million to 965 beneficiaries under the Homeward programme by Yayasan PETRONAS, working with *Jabatan Kebajikan Masyarakat* (JKM) and *Jabatan Perkhidmatan Kebajikan Am Sabah* (JPKAS). The beneficiaries from 13 states and two federal territories (except Putrajaya) received 609 hospital beds, 44 oxygen concentrators and 312 wheelchairs.

Positive Social Impact

Environment – PETRONAS Planting Tomorrow

We recognise that achieving environmental awareness is a continuous journey that requires collective action. Therefore, we constantly work with our local communities to support environmental conservation and minimise our impact on the environment.

Environmental Conservation

Through Yayasan PETRONAS, we contributed towards carbon sequestration via tree planting activities. We did this by working with local communities in 11 states namely Kedah, Penang, Perak, Selangor, Kuala Lumpur, Melaka, Johor, Terengganu, Pahang, Sabah and Sarawak, where we provided them with the appropriate education, supported the setting-up of nurseries, participated in planting activities and monitored the survival of the trees. These actions help in improving the community's income levels and quality of life.

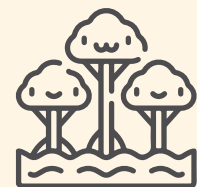
- Continued to support environmental conservation under the PETRONAS Walk4Trees Challenge, a nationwide tree-planting project. A total of 61,584 trees have been planted across 11 states since this project began in September 2020.
- Three peat swamp forests in Selangor, Sabah and Pahang were rehabilitated and irrigation control management was implemented as part of fire prevention.

We conducted the mangrove conservation programme in Johor and Terengganu. In Johor, it was carried out in support of the Johor State Government's plan to develop Sungai Johor Estuary into an ecotourism attraction by planting 14,500 mangrove trees. In Terengganu, this was part of PCG's conservation and rehabilitation awareness programme along Sungai Kertih. The programme covers more than 14,000 square metres, with over 20,000 mangrove trees planted.

Biodiversity efforts:

- We are also doing various conservation efforts to prevent and minimise impacts to biodiversity and the ecosystem, while restoring and rehabilitating the ecosystems surrounding where we operate.

Our Upstream business planted over 15,000 trees, including mangroves, converted shipwrecks into artificial reefs, conducted coral restoration works and deployed mini *unjam*, a fish aggregating device, to provide alternative breeding grounds for marine life, especially fish. These efforts helped improve the marine ecosystem services to ensure food security, sustainable economic and coastal livelihood development (ecotourism) and shoreline protection.



Beach Cleaning Activities

We collaborated with several Non-Governmental Organisations (NGOs) and government ministries to clean up beaches. In Melaka, as part of our participation in World Clean-Up Day, we partnered with Solid Waste and Public Cleansing Management Corporation (SWCorp), the city council, *Majlis Bandaraya Melaka Bersejarah* (MBMB), and the state's legislative assembly development and coordination committee, *Jawatankuasa Pembangunan dan Penyelarasan Dewan Undangan Negeri* (JAPERUN).

The collaborative effort saw 100.2 kilogrammes of waste collected. In Terengganu, we collaborated with a local NGO, *Geng Plastik Ija* and the state's Department of Statistics Malaysia branch to collect 1,897 kilogrammes of waste, with 844 kilogrammes of recyclable waste materials.

Collected **100.2kg** of waste by collaborating with SWCorp, MBMB and JAPERUN in conjunction with World Clean-Up Day in Melaka.

Collected **1,897kg** of waste, including **844kg** of recyclable waste in Terengganu.

Sea Turtle Conservation in Mexico

We contributed to conservation efforts by building a larger and more protected nesting area for endangered sea turtles, increasing hatching rates by 30 per cent since 2020. In addition, we enhanced workers' living conditions, boosting morale and performance, and provided a safer, more efficient warehouse for equipment and materials storage.

240,891
turtles were released as compared to
294,660 in 2021.

Helping fishermen

- We uplift the lives of the fishermen community in Sabah, Sarawak and Terengganu with programmes tailored to their needs. These include safety awareness, educational activities focusing on the environment and contributing essential supplies and life jackets.
- The engagements, awareness sessions and outreach programmes have enhanced the community's safety awareness. This is reflected in a **60 per cent** reduction in oil rig encroachments and zero fish bombing activities.
- Additionally, the disposal of seized boats and the contribution of *unjam*, a traditional fish aggregating device, created fish breeding grounds for marine ecosystems to thrive and provided alternative fishing spots for the community

Clean water

- PETRONAS is positively impacting local communities in South Sudan, Sudan, Iraq and Indonesia by providing access to clean water. As a result, business and farming in South Sudan and Sudan have improved health and economic opportunities.
- PETRONAS also contributed water filters in Iraq and implemented a clean water programme in Indonesian schools, improving students' education and hygiene awareness.

Student Voices

The Student Voices competition provides a platform for future generations to share their ideas and solutions for some of the world's biggest challenges.

The competition aims to promote environmental protection, stronger communities and social responsibility by inspiring young contestants with educational videos on green mobility, solar energy and hydrogen. Our goal is to empower these students to become the voice for change.

In 2022, the competition saw the participation of 500 contestants from 26 schools in both online and onsite events. Since 2020, we have impacted over 200,000 beneficiaries, primarily teenagers and their families, in Shanghai and surrounding cities.