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PRINCE SATTAM BIN ABDULAZIZ UNIVERSITY

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Building resilient futures through partnerships and skills education

Entrance to PSAU's main campus in Al-Kharj, Saudi Arabia

Tackling the green skills gap through education

By embedding sustainability at every level of teaching and learning, universities can seize the moment and equip present and future generations with the skills to support the transition to a green economy

A cohort of Saudi students on a visit to Cape Town, South Africa as part of the PSAU Global South Partnership

Sustainable development is contingent on our collective appetite for change and how successful we are in equipping people with the knowledge, skills and motivation to tackle the most urgent challenges facing society today. As the green economy gains momentum, green skills are one of the driving forces behind sustainable development. They enable individuals to apply technical proficiency and academic knowledge to the myriad real-world issues that fall under the rubrics of the 17 United Nations Sustainable Development Goals (UN SDGs).

But how can society develop a talent pipeline with the skills to achieve sustainability goals? According to Abdullah M. Elias, professor and director of the Rankings, Strategy and Institutional Advancement Department at Prince Sattam Bin Abdulaziz University (PSAU) in Saudi Arabia, the search for an answer begins on today's campuses. He argues that higher education should go all-in on teaching the SDGs.

"This is where we train the next generation and tell them why it is important," says Elias. "This is where we make sure that they understand what sustainability is and how important it is for all of us, so that when they find themselves in positions of authority, they already have buy-in." PSAU has aligned its curricula with the SDGs and Saudi Vision 2030. By integrating SDG-themed academic modules and content, PSAU is enabling its graduates to enter the workplace with a comprehensive suite of green skills that advance sustainability.

As a founding partner of Times Higher Education's International Green Skills Initiative, PSAU has undertaken a root-and-branch audit of its teaching to ensure sustainability is embedded across its six campuses, 20 colleges, 55 departments and over 60 programmes at undergraduate and postgraduate levels. "We are analysing every course we teach at PSAU and mapping them to one or more SDGs," says Elias. "We are going all the way down to the outcomes and the targets of those SDGs and redesigning course content to ensure that the SDG targets are delivered."

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Abdullah M. Elias,
director of Rankings, Strategy and Institutional Advancement Department, PSAU

Members of the PSAU team at the 2025 THE Global Sustainable Development Congress in Istanbul, Türkiye

Advisory board members of the International Green Skills Initiative at its launch during the 2025 THE Global Sustainable Development Congress in Istanbul, Türkiye

The PSAU team celebrating its Saqr1 race car's entry in the 2025 Shell Eco-marathon in Qatar

The International Green Skills Initiative presents a platform for universities to share strategies and insights into how the sector can better equip students with the skills that a low-carbon economy will demand. In addition to identifying how universities can equip students with relevant green skills that meet the job market's needs, its primary goals are to understand the relationship between universities and the wider economy and explore how universities can play a greater role in shaping a greener, more sustainable future.

The initiative was developed in consultation with the UN's Environment Programme (UNEP) to support its Green Jobs for Youth Pact, a global programme that invites collaboration among governments, employers and youth and education partners to promote green skills, create new green jobs and accelerate the green transition of existing jobs.

At present, the demand for green skills exceeds the availability of those skills in the job market. The World Economic Forum's Future of Jobs Report 2025 revealed a 12 per cent increase in the acquisition of green skills between 2022 and 2023. In the same period, there was a spike of almost 22 per cent in jobs listings requiring at least one green skill. The report suggests that prioritising green skills development is essential for harnessing the opportunities presented by the green transition in a fair and inclusive manner.

According to the 2024 Global Green Skills Report by LinkedIn, the demand for green talent is growing in most countries as companies work to meet their sustainability targets. In 2023, 7.3 per cent of job postings on LinkedIn were for green roles or required green skills, which increased to 7.7 per cent in 2024. Similarly, a 2024 report prepared for the UN Environment Programme by Students Organising for Sustainability (SOS) International, on behalf of the Green Jobs for Youth Pact Youth Advisory Group, highlights that education systems must reflect the requirements of a green economy by integrating green skills into curricula and facilitating continuous learning for all.

The report sets out recommendations for institutions to advance green skills and enhance access to green jobs, such as providing access to high-quality education on climate and ecological challenges; integrating diverse and traditional knowledge into the curriculum; incorporating sustainability and green skills into mandatory educational programmes; and creating pathways for students and graduates to explore environmental and sustainable career opportunities.

Setting a clear definition of green skills will be a crucial step towards bridging the skills gap. The SOS International report describes them as "the necessary knowledge, attributes and competencies to create a fairer, more sustainable future for all". Green skills transcend disciplinary boundaries and must combine technical and soft skills. One of the key themes to emerge from the 2025 THE International Green Skills Summit was the importance of establishing a culture within universities that supports sustainability across all disciplines.

The focus on green skills aligns with the ongoing shift within the global higher education sector towards equipping students to achieve real-world impact. Institutions are emphasising practical, solution-orientated teaching and learning that addresses societal and environmental challenges. Engagement with industry plays a crucial role in this process. For example, instead of relying on traditional assessment methods, universities can partner with industry to design assessments where students complete SDG-related projects.

PSAU pursues a similar strategy by assigning students sustainability projects with real-world impact and welcoming industry experts on campus to share their expertise. This strategy is seeing results, with students developing sustainable innovations and showcasing them internationally. Such innovations demonstrate how students can take an active role in designing the world around them, even before they enter the workforce.

> **At PSAU, sustainability is a way of life.** That's just what we are turning it into. It is part and parcel of everything we do. Whether we are teaching business, pharmacy or engineering, we believe there is a way to integrate SDGs into everything we teach."
>
> **Abdullah M. Elias,**
> director of Rankings, Strategy and Institutional Advancement Department, PSAU

Cross section of PSAU students from its pharmacy college at a poster presentation.

Mapping global trends in green skills development

Closing the green skills gap requires targeted policies and coordinated action from educators, policymakers and industry leaders across the world

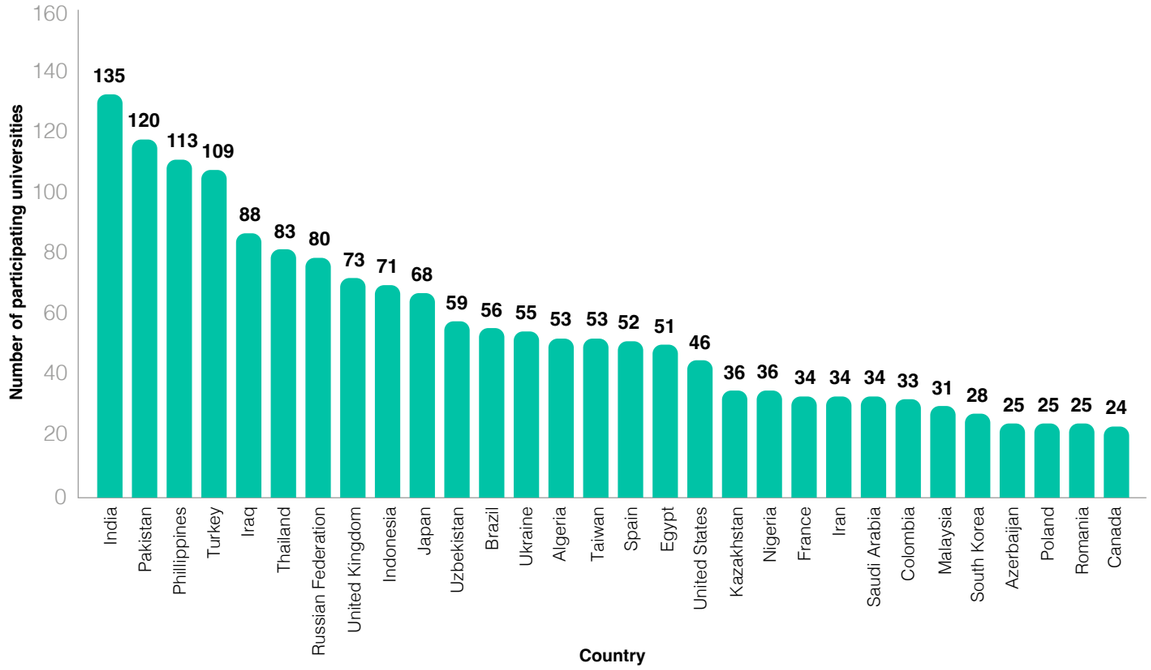
PSAU's team at the 2025 THE World Academic Summit in Thuwal, Saudi Arabia

The Times Higher Education Impact Rankings – renamed the Sustainability Impact Ratings in 2025 – evaluate annually how universities worldwide contribute to achieving the United Nations' Sustainable Development Goals (SDGs). A total of 2,526 institutions from 130 countries and territories took part in the 2025 Impact Rankings. Although green skills represent only one aspect of the broader sustainable development agenda, the Impact Rankings offer valuable insights into the sustainability-related efforts of higher education institutions. Out of the 220 indicators evaluated in 2025, over 70 are directly linked to green skills.

Out of 30 countries (figure 1), 18 are regarded as part of the Global South. These countries span Asia, Africa and Latin America, with Asia having the largest representation. The strong presence of developing economies in Asia within the global sustainable development discourse underscores the effectiveness of targeted regional strategies.

Four of the countries listed here had participation figures of over 100, implying widespread and strategic efforts to document their sustainability-related practices at the national level. However, country size and the overall number of universities are a factor. There is also a clear regional majority – the top three countries by participation are located in South or South-east Asia, indicating a prioritisation of sustainable development and green skills across the sector within this region. Notably, there is less representation from European countries within the top 20, implying lower levels of engagement in

Figure 1: Top 30 countries by number of participating universities in Impact Rankings 2025



sustainability measurement and associated green skills relative to countries within the Global South.

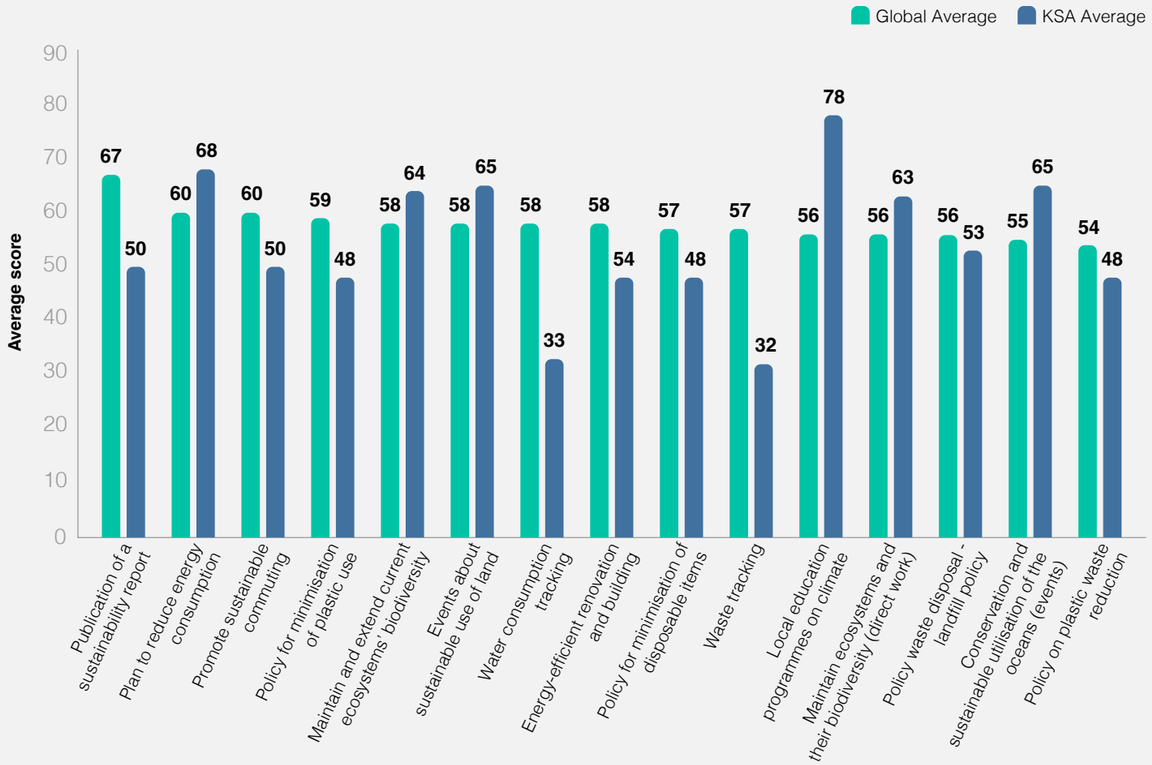
Isolating the ranking indicators that are closely related to green skills reveals the key green skills areas driving high performance levels in the Impact Rankings. The 15 highest-scoring green skill-related indicators are shown in figure 2.

Publication of a sustainability report is the highest-performing indicator in both the global and the Kingdom of Saudi Arabia (KSA) datasets. Several other indicators also show alignment between global and KSA averages, such as “plan to reduce energy consumption” and “promote sustainable commuting”, indicating shared operational priorities.

However, there are areas where KSA significantly outperforms the global average, including indicators such as “policy for minimisation of plastic use”, “policy waste disposal – landfill policy” and “water consumption tracking”. These differences point to a stronger emphasis on resource management and waste reduction within KSA institutions. Conversely, indicators like “local education programmes on climate” and “events about sustainable use of land” show lower scores in KSA, suggesting potential gaps in outreach and community engagement activities.

The indicators span a wide range of institutional functions – from infrastructure and planning to awareness and monitoring – highlighting the

Figure 2: Highest performing green skills-related indicators by average score in the Impact Rankings 2025 (Global v Saudi Arabia)

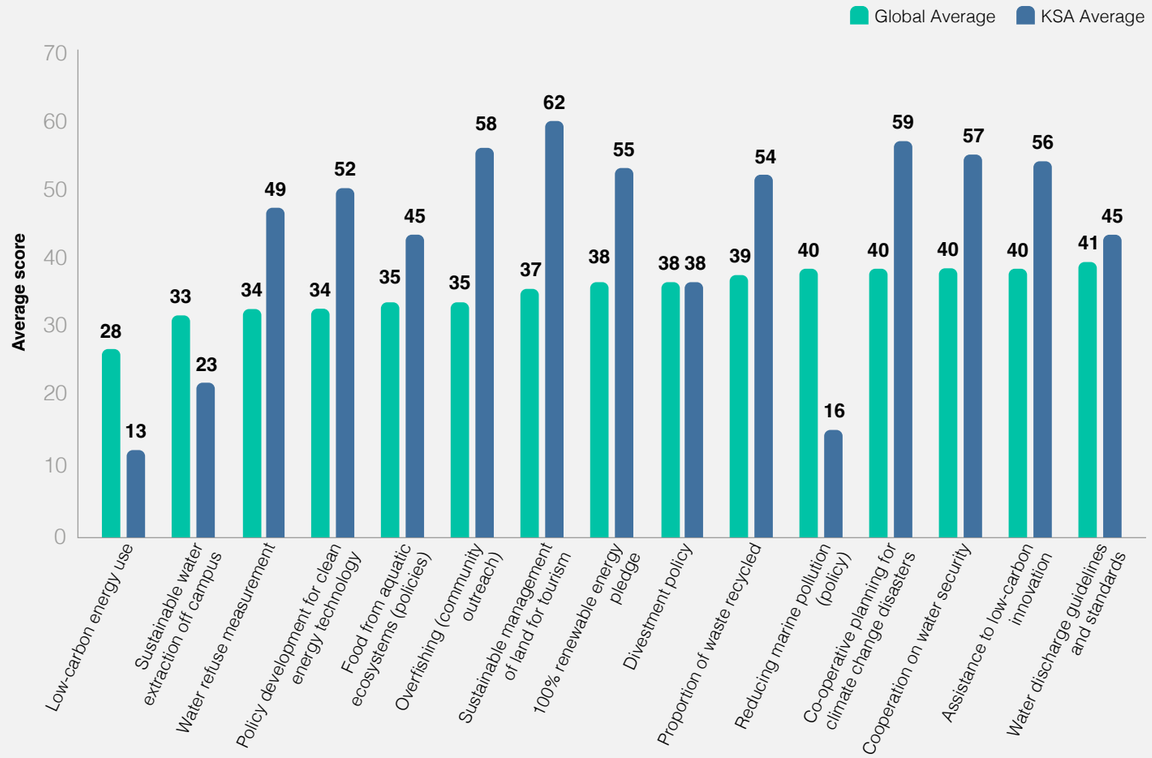


diverse nature of green skills-related efforts. While these indicators do not directly measure green skills development, they reflect the institutional environments in which such skills are likely to be cultivated and reveal areas of high and low priority across different contexts. Areas of lower priority within the green skills landscape may be identified within the lowest-scoring green skills-related indicators of this data set, as shown in figure 3.

“Low-carbon energy use”, covering SDG 7 (affordable and clean energy) and SDG 13 (climate action), remains the weakest performing area among all green-related indicators for both global and KSA averages. However, the gap is more pronounced in KSA, where the score is notably lower than the global average. This suggests that universities in KSA may face greater challenges in implementing low-carbon energy practices, potentially due to infrastructural, policy or resource constraints.

Water-related indicators such as “water consumption tracking” and “policy waste disposal – landfill policy” show a contrasting trend. KSA institutions outperform the global average in these areas, indicating stronger institutional engagement with water management and waste reduction. This may reflect national priorities and targeted initiatives within KSA’s higher education sector.

Figure 3: Lowest performing green skills-related indicators by average score in the Impact Rankings 2025 (Global v Saudi Arabia)



Of the 15 indicators reviewed, a significant number relate to energy use and institutional engagement – domains that require robust operational systems and technical expertise. The variation in scores between KSA and global averages highlights both strengths and areas for improvement. While KSA demonstrates leadership in certain operational indicators, the lower performance in others – particularly those requiring advanced infrastructure or cross-sector collaboration – points to opportunities for strategic development and capacity building.

Although the Impact Rankings dataset does not directly measure green skills, it provides useful insights about how well universities are preparing to deliver on their sustainability commitments. Indicators focused on planning, promotion and policy development tend to perform better than those measuring practical action. This implies that while sustainability and green skills strategies are in place, the capabilities required to turn plans into reality are still developing.

Investing in green skills across all levels, from leadership and teaching to campus operations, will be key to bridging this gap. Universities can do this by integrating sustainability competencies into staff development programmes, embedding green literacy and systems thinking into curricula and offering interdisciplinary courses that link environmental issues with economics, technology and policy. Leadership teams can champion sustainability through decision-making frameworks that prioritise low-carbon and circular economy principles, while operational staff can be trained in energy management, waste reduction and sustainable procurement. Building such capacity can help universities move from intention to impact, creating environments where sustainable practices are embedded in everyday decision-making. In doing so, they can cultivate a culture where sustainability is not just a policy objective but a shared institutional capability.

Green skills at Prince Sattam Bin Abdulaziz University

At Prince Sattam Bin Abdulaziz University (PSAU) in Saudi Arabia, the integration of green skills has driven a strategic transformation rooted in the belief that green literacy and systems thinking are essential for the 21st-century workforce. Across all faculties, courses now embed sustainability themes such as renewable energy, waste management, circular economy design and responsible innovation – ensuring graduates emerge as problem-solvers ready to lead the transition to greener industries and communities.

“Our classrooms are designed to be laboratories for green learning,” said Abdullah M. Elias, professor and director of the Rankings, Strategy and Institutional Advancement Department at PSAU. “Through project-based collaborations with industry and visiting lectures from international experts, our students tackle real-world challenges that demand creativity, innovation, and environmental awareness. We’re not just preparing them for jobs – we’re preparing them to create them.”

PSAU’s forward-thinking approach includes micro-credentials in sustainability, entrepreneurship, and data science – short, stackable qualifications that complement degree programmes and respond directly to global workforce needs. Students are also encouraged to use digital platforms and social media to showcase sustainable business ideas, extending learning and impact beyond the classroom.

By embedding sustainability into both teaching and operations, PSAU has cultivated a culture of shared responsibility. “Sustainability at PSAU is a lived practice, not just a policy statement,” Elias notes. “From energy management and waste reduction to sustainable procurement, every department and staff member contributes. This is how we move from intention to impact.”

Aligned with Saudi Vision 2030, PSAU’s efforts mirror the Kingdom’s wider goals of green transition, innovation, and youth empowerment. Through global partnerships and initiatives such as the PSAU Global South Partnership and the International Green Skills and Learning Initiative, the university is establishing itself as a regional and international catalyst for sustainable transformation.

“Our mission is to prepare a generation that will not merely adapt to the green economy but define it,” Elias says. “By making sustainability a shared institutional capability, PSAU is helping shape the future of education – and the future of the planet.”

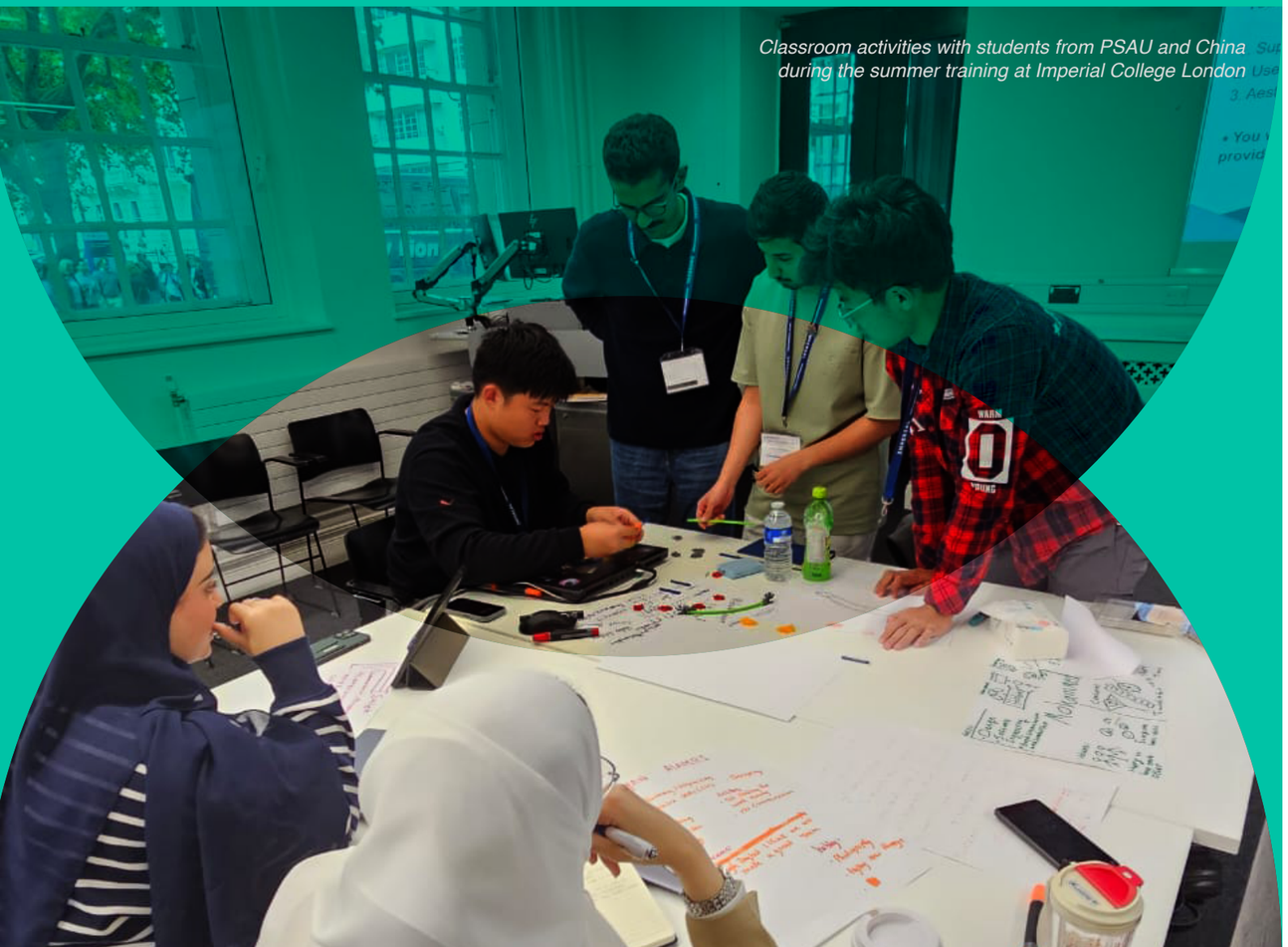
> Through project-based collaborations with industry and visiting lectures from international experts, **our students tackle real-world challenges that demand creativity, innovation, and environmental awareness.** We’re not just preparing them for jobs – we’re preparing them to create them.”

Abdullah M. Elias,
director of Rankings, Strategy and Institutional Advancement Department, PSAU

Students showcasing their SDG-themed projects at PSAU’s stand during the 2025 THE Global Sustainable Development Congress in Istanbul, Türkiye

Building partnerships for sustainable impact

By adopting a grassroots approach to university partnerships, Prince Sattam Bin Abdulaziz University is taking its sustainability drive global and catalysing progress in the Global South and beyond



Classroom activities with students from PSAU and China during the summer training at Imperial College London

In today's interconnected world, both challenges and innovation must be met through collaborative effort. Value-driven partnerships between institutions, industry and organisations worldwide enable knowledge exchange, resource-sharing and creative solutions that result in meaningful and sustainable outcomes.

As key actors in the innovation ecosystem, universities need partners across sectors to address the world's biggest problems and maximise societal impact. When Prince Sattam Bin Abdulaziz University (PSAU) in Saudi Arabia committed to reorientating its mission and curricula to align with the United Nations' Sustainable Development Goals (SDGs), one key element of its strategy was to look outwards for strong partnerships with industry and government, but especially with peer institutions at home and abroad that shared its vision.

One notable example is PSAU's collaboration with Imperial College London in the UK. Since 2023, the collaboration has included intensive summer training programmes at Imperial, where students are offered hands-on learning experiences in SDG-themed projects. It also gave PSAU students a first-hand experience of living and studying in London and interacting with peers from around the world. In addition to student training, the partnership promotes faculty mobility and research collaboration between the two institutions.

Additionally, PSAU has built partnerships with several institutions in Africa and Asia to promote sustainable development. In 2025, it established the PSAU Global South Partnership (GSP) to foster research collaboration, student exchange programmes, policy advocacy and joint projects related to climate action, quality education and sustainable development. "Sustainability is a top priority for PSAU," says Abdullah M. Elias, professor and director of the Rankings, Strategy and Institutional Advancement Department at PSAU. "Through the Global South Partnership, we are trying to champion the SDGs."

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> director of Rankings, Strategy and Institutional Advancement Department, PSAU

The 2024 PSAU student cohort attending the summer programme at Imperial College London

Participants during the PSAU Global South Partnership round table at the 2025 THE Africa University Summit in Kigali, Rwanda

Participants of the PSAU Global South Partnership round table at the 2025 THE Global Sustainable Development Congress in Istanbul, Türkiye

The initiative was launched at the 2025 THE African Universities Summit in Rwanda. Elias emphasises that it takes a unique approach to academic partnerships by avoiding the top-down model, where proposals are defined by senior leaders. “We’re doing a bottom-up approach,” Elias says. “We got [university] presidents in a room and sold the idea to them. We told them, ‘we want your buy-in, we want your support, but other than that, we don’t want you involved in the day-to-day and research activities of this partnership.’”

Instead, the PSAU GSP requires that partnering universities put forward academics and team members who are then paired with peers at PSAU. Building on existing relationships makes this process easier. For example, Elias leveraged his relationship with a former colleague, Clement Nyirenda, eResearch director at the University of the Western Cape (UWC) in South Africa, to get UWC’s buy-in into the PSAU GSP. Subsequently, both PSAU and UWC identified student mobility as a common priority, which is also a key theme of the PSAU GSP.

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> **Abdullah M. Elias,**
> director of Rankings, Strategy and Institutional Advancement Department, PSAU

> **The first thing that we bring forward is the people and the values that we stand for.** We believe that if we have people who are committed to partnership and the values that we share, then the resources that we need, no matter how difficult it may look, we will easily get.”
>
> **Clement Nyirenda,**
> eResearch director at the University of the Western Cape

“We were able to do something that many thought was impossible,” says Elias. “With the help and support of these networks, we were able to take over 200 students from PSAU and 14 GSP partner institutions from Saudi Arabia on a student mobility visit to Cape Town. Through that, now we have more student projects going on.”

Another advantage of global partnerships is that they enable universities to pool their resources. At a time when AI and cutting-edge technologies are evolving rapidly, some institutions might find it challenging to keep up with the infrastructure requirements and associated costs. Partnering with like-minded universities can improve access to technology and tools to support research projects and enhance teaching and learning.

Nyirenda says that to build successful partnerships, shared values should take precedence over resources. “From our work, when it comes to partnering, the equipment or physical resources are

Cross section of a cohort of students from Saudi Arabia in a class during their visit to universities in Cape Town, South Africa, as part of the PSAU Global South Partnership.

not the first thing that we put on the table," he says. "The first thing that we bring forward is the people and the values that we stand for. We believe that if we have people who are committed to partnership and the values that we share, then the resources that we need, no matter how difficult it may look, we will easily get."

UWC has historically drawn large numbers of students from marginalised communities and sees its civic outreach and work in sustainable development as a means of supporting them. "We have a lot of programmes that are tailored for those students and communities," says Nyirenda. "The SDGs talk about the fight against hunger and health issues. They are the forefront of what we do."

Nyirenda says UWC's partnership with PSAU is opening up pathways for projects that can enhance both universities' research impact. Conversations with academic staff at PSAU and other universities in the country have highlighted that institutions in Saudi Arabia and South Africa pursue some of the same research interests. He adds that when institutions work together, they can produce joint publications and long-term strategic plans, generating momentum that is carried on to the next generation.

Alongside its collaboration with PSAU, UWC has long-standing partnerships with universities in the Netherlands. It is expanding its network in Germany, collaborating with the Ruhr University Bochum on research-orientated master's and PhD programmes to educate the next generation of leaders in how to tackle the challenges facing sustainable development. It also collaborated with the University of Hohenheim to establish the African-German Centre for Sustainable and Resilient Food Systems and Applied Agricultural and Food Data Science. This initiative hopes to enhance food security across Africa and beyond and tackle SDG 2 (zero hunger).

Clement Nyirenda delivering a lecture during the student mobility visit to the University of Western Cape

Student engagement and participation are important pillars of the Global South Partnership. Conscious of their need for better stewardship of our planet, students are often eager to contribute to PSAU's international collaborations, Elias notes. "As part of the core requirements under the PSAU GSP, students from both partnering institutions must be engaged in the project," says Elias. "Once academics from one university find common ground with scholars from our university, they would need to form a team and those teams must include students from both sides. Because we believe there is a responsibility to ensure that this fight continues into the next generation. The only way we can do that is to involve students in everything we do."

Find out more about Prince Sattam Bin Abdulaziz University.

Find out more about the PSAU Global South Partnership.

A cohort of students from Saudi Arabia visiting universities in Cape Town, South Africa, as part of the PSAU Global South Partnership

Panellists at the launch of the International Green Skills Initiative at the 2025 THE World Academic Summit in Thuwal, Saudi Arabia

Signing of expression of interest for the PSAU Global South Partnership during the 2025 THE Africa University Summit in Kigali, Rwanda

To find out more about Prince Sattam Bin Abdulaziz University, visit psau.edu.sa/en

Participants of the PSAU Global South Partnership round table at the THE 2025 THE Africa University Summit in Kigali, Rwanda