

International Association of Universities (IAU), founded in 1950, is the leading global association of higher education institutions and university associations. It has over 600 Member Institutions and 30 organisations in some 130 countries that come together for reflection and action on common concerns.

IAU partners with UNESCO and other international, regional and national bodies active in higher education. **It is committed to building a Worldwide Higher Education Community.**

## IN FOCUS

Universities and Agenda  
2030: Engaging with the SDGs

## IAU 2019 CONFERENCE

Transforming Higher  
Education for the Future



# MESSAGE FROM THE SECRETARY-GENERAL



**Dear Members of the IAU,  
Dear Members of the broader higher education community,**

In this new issue of *IAU Horizons*, we are pleased to present highlights from the IAU 2018 International Conference on *Higher education partnerships for societal impact* and share with you memories of a conference wonderfully hosted by the University of Malaya in Malaysia.

It is also an invitation to take an active part in the IAU 2019 International Conference on *Transforming higher education for the future*, which will be hosted by the Benemérita Universidad Autónoma de Puebla (BUAP) from 13-15 November in Mexico. The Conference website and registrations have now been launched and we hope to welcome you to the beautiful city of Puebla. We are working closely with our hosts to ensure a stimulating event that will also allow you to better connect with higher education representatives from Latin America. This year, university associations from around the world will also be gathering in Puebla for the IAU biennial Global Meeting of Association (GMA), hosted by BUAP and co-organised with the Association of Universities of Latin America and the Caribbean (UDUAL).

As usual, the magazine also includes articles related to the four strategic priorities. Under Leadership, we focus on the lack of gender parity in HE leadership and on Internationalization, we present initial findings from the Global Survey Report which will soon be published and shared with all IAU Members. You will also learn more about the portal on Higher education and research for sustainable development (HESD) in the context of Agenda 2030 and about IAU's participation in the UNESCO Mobile Learning Week on Artificial Intelligence in the section on Technology.

IAU continuously develops its reference publications. Learn more about these developments in the Knowledge Hub section where you will find the latest news about the World Higher Education Database (WHED) and IAU publications.

This edition's In Focus section is devoted to *Universities and Agenda 2030: Engaging with the SDGs* and it gathers 15 papers by universities, which have been selected as lead institutions in the IAU Global Cluster on HESD. The papers illustrate how higher education is contributing to the pursuit of the SDGs.

In parallel, the IAU President, Members of the Board and IAU staff continue to represent you and the broader higher education community at key events, in particular on Democratic citizenship, University Autonomy, Quality Assurance and other important international debates. These past months we were involved in the UNESCO Debates on SDG 4 – Quality Education; took part in the finalization of the UNESCO Global Convention on the Recognition of Higher Education Qualifications and debated rankings. We ensure that the voice of higher education institutions is heard and reflected in statements that are shaping the future of higher education globally.

Do not hesitate to sign up for the IAU newsletter, follow us on Twitter and LinkedIn and visit the IAU website regularly to keep you up to date about new developments.

Finally, we hope that you have received the invitation to take part in the series on higher education the BBC Storyworks will produce for the IAU and the wider higher education community in order to reaffirm the fundamental values of higher education and its role in transforming societies. We hope that this is another important opportunity to spotlight the work of IAU Member institutions contributing to this effort around the world. The series will be launched during the conference in Mexico.

Enjoy the magazine and looking forward to welcoming you to the Conference in Puebla!

*Bonne lecture*

**Hillegje van't Land**



# IAU Horizons 24.1 – Contents

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## IAU EVENTS

- 2 IAU 2019 International Conference & GMA  
*Transforming higher education for the future*
- 4 Highlights from the IAU 2018 International Conference  
*Higher Education partnerships for Societal impact*



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## IAU STRATEGIC PRIORITIES

- 6 Values-based leadership
- 8 Internationalization of Higher Education
- 10 Higher Education and Research for Sustainable Development
- 12 Technology in higher education



## IAU KNOWLEDGE HUB

- 14 New IAU publications
- 15 IAU-UNESCO WHED
- 16 IAU Membership News
- 38 Publications received at IAU



## IN FOCUS:

17 Universities and Agenda 2030:  
Engaging with the SDGs



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# IAU EVENTS

# IAU 2019

INTERNATIONAL  
CONFERENCE

## TRANSFORMING HIGHER EDUCATION FOR THE FUTURE

13-15 NOVEMBER IN PUEBLA, MEXICO



Hosted by the Benemérita  
Universidad Autónoma de Puebla  
(BUAP)

➔ Consult the programme and register at the early bird rate: [www.etches.com/iau2019](http://www.etches.com/iau2019)

Recognizing that higher education is facing a number of challenges brought about by today's complex societies, the **IAU 2019 International Conference** is set to discuss the future role of higher education against a backdrop of some major global phenomena, including the impact of rapid technological advancements on higher education; and secondly, the urgent need to create more sustainable societies.

The IAU 2019 International Conference is devoted to **Transforming Higher Education for the Future** and is to explore how higher education leaders and experts envisage higher education, not only in the future, but also for the future. The Conference will not only facilitate sharing visions, but will also constitute an open dialogue that seeks to outline opportunities as well as challenges of higher education today. Acknowledging that local contexts differ in terms of culture, tradition, religion, demographic, language, politics and economics, IAU values this diversity and believes it is crucial to continue to foster exchange on higher education beyond borders and regions in an increasingly interlinked world.

Higher education has an important role to play in proposing solutions, in shaping societal development, and in fostering debate on the ethical and social dimensions of the transformations taking place around the world. Research carried out within higher education can inform decision-makers; through its community engagement, higher education can propose inclusive and innovative solutions to address societal challenges. On a global level, we can exchange and learn from other experiences and practices, with a common objective of advancing higher education and sustainable societies.

Framed by the theme **Transforming Higher Education for the Future**, IAU will convene leaders and experts to share their visions about higher education connecting local, national, regional and global perspectives and to generate discussions



on what is the essence of higher education today and in the future. The Conference will constitute a global space for the exchange of ideas and opportunities; it will also be a space to identify key challenges and hurdles preventing transformation. It will offer a space to question the status quo, and to imagine an ideal world of higher education free of everyday constraints. Higher education institutions will have the opportunity to present current initiatives and research being carried out to transform higher education, to enhance education and research, and to promote sustainable solutions for future societies.

The outcomes of the discussions in Puebla will lay the grounds for the 16<sup>th</sup> General Conference in 2020, where IAU will be celebrating its 70<sup>th</sup> anniversary since its first and founding General Conference in 1950 and look into the future.

**Make sure your institution attends the Conference in Puebla and contributes to the global voice for higher education!**

**GLOBAL MEETING OF ASSOCIATIONS (GMA VIII)**

Meeting open exclusively for higher education associations, organizations and networks.

When registering for the conference, remember to sign up for the 8<sup>th</sup> Global Meeting of Associations (GMA) which is

taking place prior to the International Conference on 12-13 November.

For the Preliminary Programme click GMA on the conference website [www.etouches.com/iau2019](http://www.etouches.com/iau2019)

**PRELIMINARY PROGRAMME****WEDNESDAY 13 NOVEMBER 2019****Inaugural ceremony: Transforming higher education for the future**

Welcome reception by the Benemérita Universidad Autónoma de Puebla (BUAP)

**THURSDAY 14 NOVEMBER 2019****Opening Ceremony****PLENARY SESSION I: Rethinking higher education in a transforming world****Breakout sessions – series I**

I.a: Round table debate related to plenary I: Rethinking higher education in a transforming world

I.b: Towards sustainable societies with higher education

I.c: Transformations in teaching and learning

I.d: Partner session by Magna Charta Observatory (MCO)

**PLENARY SESSION II: Between tradition and innovation****Breakout sessions – series II**

II.a: Qualification recognition and credentials in the digital era

II.b: Is financing shaping the future of higher education?

II.c: Research systems and equitable access to knowledge

II.d: Partner session

**PLENARY SESSION III: Values for the future of Higher Education****FRIDAY 15 NOVEMBER 2019****PLENARY SESSION IV: Creating the future of higher education****Breakout sessions - series III**

III.a: New bridges between university, society & the world of work

III.b: Global engagement (internationalization) and the local mission of universities

III.c: Competences for a transforming world

III.d: Partner session by United Nations Office on Drugs and Crime (UNODC)

**Conference closing****CALL FOR POSTERS: TRANSFORMING HIGHER EDUCATION FOR THE FUTURE**

You wish to showcase examples of how your institution is transforming, consider presenting a poster during the IAU 2019 International Conference. It can be based on your vision for the future, examples of how higher education in transforming in your specific context or it can be

based on research related to transformations in higher education.

**IAU Members:** free poster display

**Non-Members:** 500 €

**Contact:** Stefanie Mallow ([s.mallow@iau-aiu.net](mailto:s.mallow@iau-aiu.net))

## Highlights from the IAU 2018 International Conference

**IAU  
2018**  
INTERNATIONAL  
CONFERENCE

**HIGHER EDUCATION  
PARTNERSHIPS  
FOR SOCIETAL IMPACT**  
13-15 NOVEMBER IN KUALA LUMPUR,  
MALAYSIA

Hundreds of students greeted the delegates to the University of Malaya for the Inauguration of the IAU 2018 International Conference. The students performed cheering dances and demonstrated traditional arts to participants. IAU President, Pam Fredman, praised the students for the warm welcome and for bringing joyful energy to the conference. The topic *“Higher Education Partnerships for Societal impact”* framed the discussions among 300 participants from around 70 countries who attended the Conference in Kuala Lumpur, Malaysia. While it is impossible to summarize the wealth of discussions that took place, these pages present a few highlights.

In her keynote address, Norma Mansor, Director of Social Wellbeing Research Centre (SWRC) at the University of Malaya, emphasized the possibility of sharing knowledge globally as one of the major opportunities of globalization and referred to ‘a *single village of knowledge*’. She called for a **more democratized access to knowledge** underlining that globalization has also worsened inequalities among those who have and those who do not have access to knowledge. She demonstrated how investments in higher education, research and development are typically more important in developed countries compared to developing countries. She underlined that **in a global world, national governments still have an important role to play in building policies and ensure financing to create an enabling environment for research and development rooted in the local needs**. She also emphasized the important role of (IAU) to facilitate and promote international understanding, collaboration and acceptance of cultural diversity across countries and regions.

In the first plenary session, the speakers discussed higher education as a global common good. Rita Locatelli, UNESCO Chair on Human Rights and Ethics of International Cooperation at the University of Bergamo, Italy, called for a **more humanistic approach to education in contrast to a more instrumental and economic one**. *“Given the central concern for sustainable development in an increasingly interdependent world, education and knowledge should be considered global common goods. This means that the creation of knowledge, its control, acquisition, validation, and use, are common to all people as a collective social endeavour. The governance of education can no longer be separated from the governance of knowledge”* [1].

Harith Ahmad, Director of Photonics Research Centre at the University of Malaya stressed that the **key missions of modern universities should be to find solutions to societal challenges and conduct research related to the global priority areas**. He also emphasized that perceiving higher education as a global common good implies a more humanistic approach and a more holistic view where all human knowledge and inquiry are fundamentally connected. This vision of higher education is grounded in social relationships rather than in economic transactions and profit-making purposes.

The question *“Is higher education adapting to or shaping the transforming world?”* framed the second plenary session and the panellists agreed that it is a combination of both. John Thwaites, Chairman of the Monash Sustainable Development Institute & ClimateWorks, Australia, highlighted the important role Universities can play to address the 17 SDGs that form part of the 2030 Development Agenda. He stressed that it will not be possible to address the goals properly without the research and knowledge generated by the universities. He called for universities to consider moving towards more interdisciplinary research, underlining that the **universities are living labs for solutions to the goals**. Outi Snellman, Vice-President Organisation, UArctic - hosted by University of Lapland, Finland, explained how the Network of Universities of the Arctic came together **to collaborate and undertake research relevant for universities based in the Arctic region and with a common goal of pursuing sustainable development**. Mandla Makhanya, Vice-Chancellor of University of South Africa (UNISA) underlined that, in the current context, social justice and equal access to higher education are high on the agenda, and this agenda has to be achieved in a context of severe financial constraints and operational demands for fundamental institutional transformations. **In Africa, many of the formerly colonized countries struggle with the heritage of past environments where education was denied to the majority of the population; within the contemporary process of decolonizing education, one of the key priorities is to place African knowledge at the centre of education and research dynamics**. He further stressed that it is important for higher education to address the current societal context and to build the future with the students, backed by solid research and broad consultations in order to ensure that higher education continues to shape the societies that we are living in.





The final plenary session was considering ***“Social responsibility and engagement - the way forward”***. Henning Jensen Pennington, Rector of the University of Costa Rica explained that the university was created as part of the social reform in Costa Rica in 1940 and, as part of this reform, the social commitment was deeply rooted in the academic functions of the university. As an example, **all students are undertaking at least 300 hours of community work as a criterion for graduation. The work undertaken is part of a joint project between the faculty, the students and the concerned societal actors.** Beyond contributing to society, it is a way for the university to develop social and critical awareness of the students, to develop solutions to local needs, and to contribute to the common welfare of the country. Pam Fredman, IAU President, gave examples of living labs from Sweden connecting different faculties, industry, research, teaching and learning. She underlined the importance of interdisciplinary research and education, as well as of bringing the local successes to the global level to share the potential benefit from scalable or adaptable innovations and solutions in different contexts. **‘Social responsibility and engagement’ is the responsibility of the universities and it is not a burden nor an extra thing to do, it should be embedded in the core values of the institution.** Sina Meraji, Computer Science undergraduate student, University of Malaya, provided his perspective as a student. He called for more **problem-based learning to empower the students to take responsibility of the problem solving process.** He also called for a new

educational system that favours competition with yourself rather than competing with other students, in order to explore the potential of each individual acknowledging the differences and favouring more collaboration among students. He illustrated this by presenting a student initiative at the University of Malaya where the students shape the learning process beyond the curriculum at the University.

These are only a few glimpses of messages that came out of the conference. Videos and PowerPoint presentations are available online: [www.etches.com/iau2018](http://www.etches.com/iau2018). The important discussions combined with the wonderful hosting of the event by the University of Malaya made it an inspiring and thought-provoking conference. Delegates came together across regions to network, exchange, learn and bring back new ideas, partners and inspiration to move forward building partnerships for social impact.

**Make sure that you take part in the next series of conversations during the IAU 2019 International Conference in Puebla, Mexico (13-15 November 2019).**

➔ [www.etches.com/iau2019](http://www.etches.com/iau2019)

[1] Rethinking education: towards a global common good? (UNESCO 2015) <https://unesdoc.unesco.org/ark:/48223/pf0000232555>

# IAU ACTIVITIES RELATED TO ITS STRATEGIC PRIORITIES



## Values-based Leadership

Leadership is a core aspect of quality higher education, vital in enabling institutions to respond to complex challenges and rapid societal change. Higher education leadership must be underpinned by values and responsibility. Leadership must be adaptable and constantly evolve to ensure always more equity. It is essential that higher education institutions fully contribute to the development of sustainable and democratic societies.

### WOMEN AND LEADERSHIP IN HIGHER EDUCATION: IS THE 'GLASS CEILING' CRACKING?

Despite the fact that the number of women in academia has increased worldwide, this has not been matched by women in senior leadership roles, and in particular as heads of higher education institutions (HEIs). Advancing women in leadership positions in higher education remains a central issue around the world to move 'Beyond the Glass Ceiling'. Data from the WHED, IAU's World Higher Education Database (see page 15) - covering 19 142 institutions in 196 countries on 25 March 2019 - reveal that today about one in six heads of institution throughout the world is a woman.

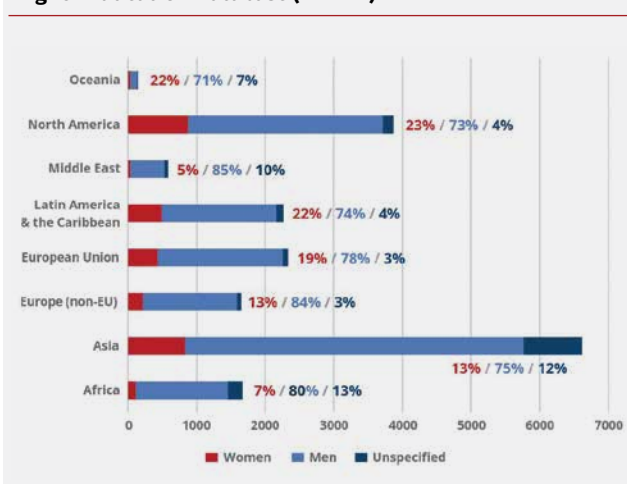
"Today, about one in six heads of institution throughout the world is a woman."

There is wide regional variation, ranging from 5% in the Middle East to 23% in North America. Oceania (22%) and Latin America & the Caribbean (22%), with just under one quarter of institutions having a woman head, have similar levels of gender equity as that of North America. Women are heads of around one in six institutions in Europe (16%) and slightly less in Asia (13%). In Africa, less than one in ten HEIs have a woman at their head (7%), while in the Middle East, one in twenty institutions (5%) are headed by a women. Within each region, considerable variation exists between countries, which is illustrated by several examples below.

#### Africa

Only 7% of HEIs in Africa have women heads, the second lowest proportion of gender equity among the seven regions. The highest proportion of women heads, one third, is found for several states with less than eight institutions each: Guinea-Bissau, Lesotho, Liberia, Mauritius, South Sudan, and Cabo Verde. Several larger African countries, with many more HEIs, have larger than the African average for women Heads: Uganda (19%), Kenya (17%) and Botswana (14%). South Africa stands

Figure 1. Regional breakdown based on data from the World Higher Education Database (WHED)



out with the highest percentage (28%). Countries with a much lower average of gender equity are Cameroon, Democratic Republic of Congo, Algeria (2%) and Ethiopia (1%). In 19 countries, there are no women heads of HEIs.

#### Asia

In Asia, 13% of institutions have a woman head, however there is much variation. The highest percentage is in the Philippines (32%), Mongolia (25%) and Thailand (19%). In Cambodia, Pakistan, Sri Lanka, Japan and the Republic Korea, just under 10% are women. India and China both have very low gender equity (respectively 7% and 4% of HEIs have a woman head). However, in 24% of Chinese institutions, gender is unspecified so the percentage of women might be higher.

#### Europe

The Europe region includes all 47 countries members of the Council of Europe as well as Belarus and the Holy Sea. 16% of HEIs in the region have a woman head. If only the 28 member states of the European Union are taken, the percentage is 3



points higher. Scandinavian countries have relatively high representation of women heads and in particular Sweden has gender parity (49% female, 51% men). Percentages for other Scandinavian countries, although higher than the European average, are lower: Norway (29%) and Denmark (28%). Slovenia also has relatively high gender equity (38%). Countries with much lower representation of women heads are Hungary (9%), Turkey (7%), Italy (6%), Albania (4%), and Greece (3%).

### Latin America and the Caribbean

With 22% of women heads, this region is close to the highest regional gender equity observed. As for Europe, there are few countries with very high or low percentages but these are very small countries (less than 5 HEIs, specifically in several Caribbean islands). Several countries have relatively high percentages of women heads, notably Panama (38%), Cuba (37%), Jamaica (33%) and Paraguay (31%), whereas countries having much lower representation are Chile (3%) and Peru (6%).

### Middle East

The Middle East is the region with the lowest level of gender equity, just under 5% of HEIs are headed by a woman. There are some notable differences between the 14 countries in this region. The highest percentages are in Bahrain (20%), Israel (16%) and Lebanon (13%). In Oman, 9% of HEIs heads are women and in both Palestine and Saudi Arabia 8%. Six countries in the region do not have any institution headed by a woman.

### North America

North America has the highest representation of women heads in the world. However, this is still just 23% of institutions. The countries in this region have all similar percentages of women heads (United States 24%, Mexico 22% and Canada 21%).

### Oceania

This region comprises Australia, New Zealand as well as seven small island states. Women represent 22% of heads of HEIs, the same proportion as for Latin America and the Caribbean. The number of HEIs in Oceania is however much smaller; there are just 143, of which 121 are in Australia and New Zealand. Indeed, in Australia 25% of HEIs has a woman head and in New Zealand 28%.

This research shows that, on average in the world, one out of six heads of HEIs is a woman. The glass ceiling remains intact. However, it also confirms that there is considerable regional variation, indicating that, to some extent, opportunities for women to access the highest echelons of leadership in academia is related to where they are in the world. One particularly alarming finding is that there are still 54 countries worldwide where there is not a single female head of HEI.

**“There are still 54 countries worldwide where there is not a single female head of institution”.**

Achieving gender equality, the 5th global goal set by the UN in Agenda 2030, is essential to IAU’s work on higher education and research for sustainable development. As part of IAU values in which diversity is key, the Association advocates for higher education systems that bring women into higher levels of institutional leadership worldwide. In supporting diversity in their missions of teaching and research, universities should anchor gender equity within the whole institution by implementing strategies that value diversity and contribute to the opportunities for women to access the highest positions and to move beyond the glass ceiling.

**“SDG 5 – Gender Equality needs to be reflected in the leadership of HEIs. National and local commitment are needed to change the current situation. This is what made a difference in Sweden. We must jointly scale up the efforts and advocate for institutions and systems that provide an enabling environment for women.”**

**Pam Fredman**, IAU President and former Rector of the University of Gothenburg, Sweden

Some of IAU’s initiatives in this area include providing leadership training opportunities, making sure women are equally represented among the participants in each session. IAU also facilitates networking of women leaders in higher education and fosters a strong pool of women candidates from IAU member universities in elections of the IAU administrative board. Indeed, IAU invites women candidates to run for election to the 2020 IAU Administrative Board to raise women’s voices in the global higher education arena.

For more information: contact [a.sudic@iau-aiu.net](mailto:a.sudic@iau-aiu.net)

## GET INVOLVED

### 🕒 Are you leading a higher education institution, department or administrative office? Interested in expanding your leaderships skills and global network?

Join IAU’s upcoming session of *Leading Globally Engaged Universities!* This 5-day professional development programme offers a unique opportunity to learn more about

the theory and **innovative practices of leadership**, gain new insights into **higher education trends worldwide** and build new **institutional connections**.

**Dates:** 2-7 June 2019

**Location:** Paris, France, by ISIT - Institut de Management et de Communication Interculturels

**More information:** <https://iau-aiu.net/Leadership>

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# Internationalization

Internationalization of higher education is an important process in the era of globalization and a deliberate strategy for improving quality and relevance. IAU focuses on the academic rationales, the equitable and collaborative nature of the process and aims to minimize the adverse effects of international interactions when these take place in highly unequal and diverse contexts among HEIs with different resources, needs and interests.

## PRELIMINARY RESULTS OF THE 5<sup>th</sup> IAU GLOBAL SURVEY

In 2018, the International Association of Universities (IAU) conducted its 5<sup>th</sup> Global Survey on Internationalization of higher education, the fifth edition in a series of surveys that begun in 2003. The IAU 5<sup>th</sup> Global Survey collected full replies from 907 Higher Education Institutions (HEIs) from 126 countries around the world. The report containing the complete results will be published by *DUZ Academic Publishers* later in 2019.

Some noticeable results are emerging from the analysis of the data collected. The results of the analysis of the importance of internationalization for the academic leadership and of the perception of benefits and risks of internationalization are especially interesting.

### Importance of internationalization for academic leadership

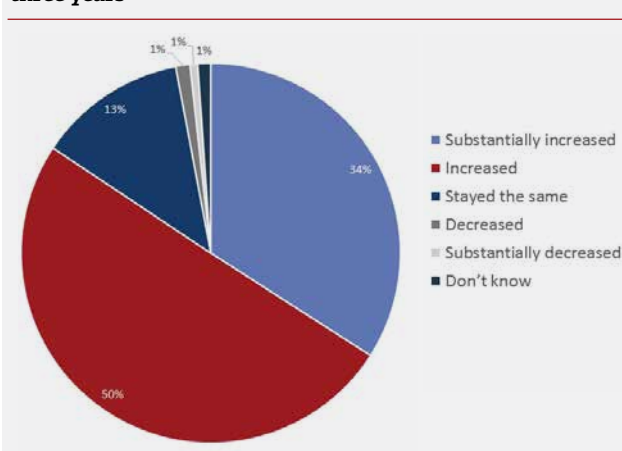
Two-thirds of respondents of the 5<sup>th</sup> IAU Global Survey indicated that internationalization is of high importance to their leadership. One quarter replied that internationalization was of medium level of importance and a very low percentage, only 5%, indicated internationalization as being of low importance or not important to the leadership of their institutions.

The position of respondents inside the institution is important, as when respondents are academic leaders, they assign high importance to internationalization (around 80% of them selected "high importance"), while when the respondents hold other positions at the institution, the percentage of replies labelled "high importance" is lower.

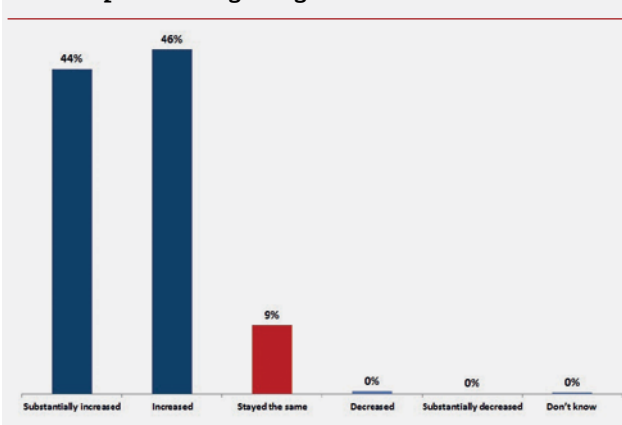
Because respondents are not coming from the same institution, definitive conclusions cannot be made, but it seems that other actors than academic leadership at HEIs (deans, faculty and administrative staff) have a perception of the importance of internationalization for their academic leadership that is lower than the one the academic leaders themselves have.

Even more interesting is the result of the analysis of the change in the level of importance for academic leadership in the last three years. More than 84% of respondents replied that the level has increased by 34% indicating that it has even "substantially increased" and 50% claiming that it has "increased" (Figure 1).

**Figure 1. Change of the level of importance internationalization for academic leadership in the past three years**



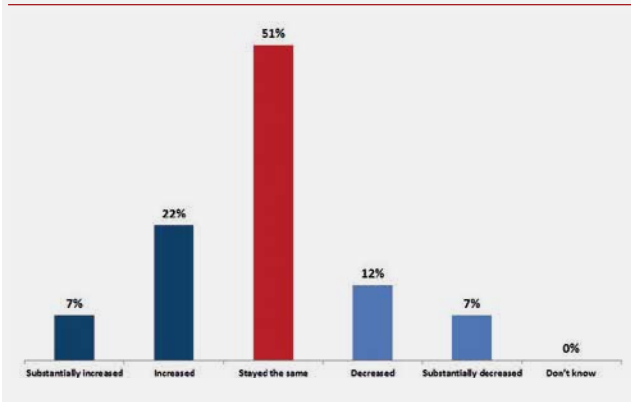
**Figure 2. Change of the level of importance of internationalization in the past three years for academic leadership considering it "high"**



However, analysing the change in the level of importance separately for each of the three groups of respondents, namely those that replied "high", "medium" and "low" in the question on the importance of this area for the leadership, an interesting result emerges. 90% of institutions that replied that the level of importance of internationalization for their academic leadership is "high" reported that this level has increased, with 44% reporting a substantial increase over the last three years (Figure 2).

On the other hand, only 29% of the institutions that replied that the level of importance of internationalization for their

**Figure 3. Change of the level of importance of internationalization in the past three years for academic leadership considering it “low”**



academic leadership is “low” report an increase in the level of importance of internationalization, while half report that the level has not changed and 19% report a decrease in the level of importance (Figure 3).

This result is very telling, as it shows a picture in which the importance of internationalization is increasing at HEIs that already consider internationalization as important. This trend could have a negative consequence, as it could create a gap between those HEIs that consider internationalization a priority and which will be even more active in internationalization, and those for which internationalization is not a priority.

This risk of growing inequalities is reflected in the perception of risks both at institutional and at societal level.

### **Institutional and societal risk of internationalization**

In fact, respondents to the 5<sup>th</sup> IAU Global Survey identified “International opportunities accessible only to students with financial resources” as the main potential risk of internationalization at the institutional level.

As far as societal risks are concerned, respondents chose “Brain drain” and “Commodification and commercialization of education” as the two most important, with “Unequal sharing of benefits of internationalization amongst countries” coming in third place.

However, there were two other options available to respondents that are dealing with inequality, namely “Growing gaps (e.g. quality / prestige / institutional capacity) between higher education institutions within our country” and “Growing development gaps between our country/region and others”. If these two options are considered jointly with the one option above: “Unequal sharing of benefits of internationalization amongst countries”, they would together represent the most important risk. This highlights the concern that internationalization may increase inequalities both among HEIs in the same country and between different countries.

This should stimulate a reflection at HEIs and by policy-makers on how to ensure that internationalization is an instrument to combat and narrow inequalities between individuals, institutions, communities and countries rather than being potentially a way to increase them.

### **Benefits of internationalization**

A possible answer to this challenge of growing inequalities comes from the results of benefits of internationalization. In fact, the most selected benefit is “enhanced international cooperation and capacity building”.

This could express HEIs’ concern with global inequality and a view that internationalization can be an instrument to narrow these gaps between institutions, communities and countries.

If this is true, it means that HEIs are seeing internationalization of higher education as not only a process that allows for improving the quality of education, but also as a process that brings a positive contribution to society.

### **Conclusion**

IAU believes that internationalization of higher education is a powerful tool to improve the quality of teaching & learning, research and service to society. However, in order for internationalization to fulfil this mission, it has to be inclusive, fair and equal.

The results of the 5<sup>th</sup> IAU Global Survey are at the same time sending out an alarm signal while showing that HEIs are aware of the risk of growing inequalities in internationalization and because of internationalization and they are putting in place mechanisms to counterbalance possible negative effects.

## **GET INVOLVED**

### **🕒 Take part in the upcoming IAU webinars!**

Two new series of webinars will start soon. First, the results of the 5<sup>th</sup> IAU Global Survey on Internationalization of Higher Education will be presented in a series of webinars. Institutions that responded to the

5<sup>th</sup> IAU Global Survey on Internationalization of Higher Education will have the possibility of following these webinars free of charge. Second, the ISAS (2.0) webinar series will continue with two webinars on how to:

- Evaluate internationalization strategies and activities
- Achieve comprehensive internationalization

The dates of the webinar will be advertised on the IAU website and in the Newsletter.

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# Higher Education and Research for Sustainable Development

Future well-being of humanity and the planet depends on successful resolution of the interconnected challenges of economic, social, cultural, and environmental sustainability. IAU's actions in support of *Transforming our world: the 2030 Agenda for Sustainable Development* and related Sustainable Development Goals (SDGs) provide a framework for university collaboration, in research, curriculum development and outreach.

## THE WORLD OF HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT IN ONE CLICK: THE IAU GLOBAL PORTAL ON HESD

### Background

The IAU Global Portal on Higher Education and Research for Sustainable Development (HESD) is an initiative that was launched in 2012, briefly after the end of the United Nations Conference on Sustainable Development, Rio+20. Rio+20 was one of the milestone events that led to the global commitment towards achieving a more sustainable future, namely Agenda 2030, and set the tone for the Sustainable Development Goals (SDGs) through the outcome document "The Future we want".

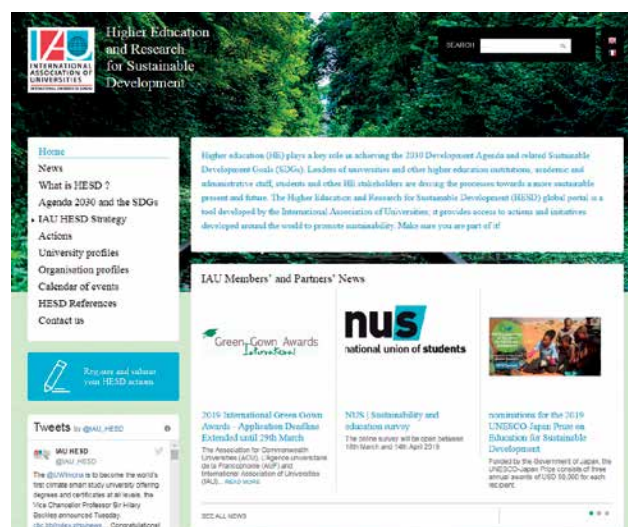
The origins of the portal however go back even further, to another milestone conference in the world of sustainable development: the World Summit on Sustainable Development in Johannesburg 2002. IAU, the Association of University Leaders for a Sustainable Future (ULSF), Copernicus Campus, and UNESCO launched the Global Higher Education for Sustainability Partnership (GHESP), a type II partnership, to promote education for sustainable development in particular among higher education institutions. One of the projects of the GHESP was a global environment scan about sustainability at HEIs, the predecessor and starting point of the Portal. Over the years, the knowledge collected by IAU and its partners grew, while at the same time there was a rising need for universities to showcase their commitments. The Portal became hence the perfect tool to combine the need to collect and share information, while at the same time display universities' commitment to sustainable development.

The IAU Global HESD Portal supported at the time of its launch two initiatives that aimed at increasing (higher) education's commitment and visibility towards sustainable development: the United Nations Decade on Education for Sustainable Development (UN DESD) led by UNESCO, and the Higher Education Sustainability Initiative (HESI). HESI is an initiative that started in the run-up to Rio+20 and continues to be influential in current sustainability debates. IAU is until today one of its supporters. The UN DESD on the other hand started

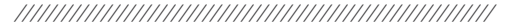
already in 2005 and was very influential in mainstreaming education for sustainable (ESD) into schools and HEIs around the globe. Here as well, IAU was involved and committed to the decade by making HESD one of its priority areas of work. When the UN-DESD follow-up programme started, namely the Global Action Programme on Education for Sustainable Development (GAP ESD), the Portal was one of the initiatives that allowed IAU to qualify to become a key partner in the GAP.

In the last 7 years since the launch of the Portal, the sustainable development community has grown, also in higher education. In 2003, the IAU-UNESCO World Higher Education Database (WHED) listed 16 649 higher education institutions with only 2 090 study programmes relating to environmental studies. On 1 September 2018, the WHED listed 18 259 HEIs with 5 350 such programmes. This represents an increase of 17%, more than 1% per year. This shows that there is a growing need to monitor and map the development of sustainable development initiatives at HEIs, one of the functions of the Portal.

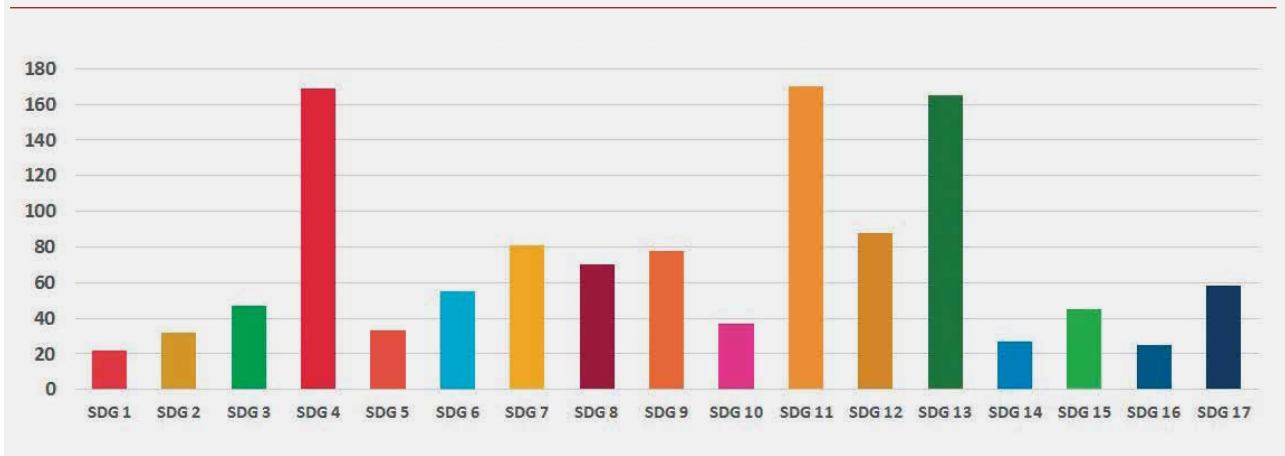
### HESD Portal content



The commitment HEIs have towards sustainable development is of course not limited to degree programmes. On the IAU Global HESD Portal, it is possible to search different kinds of



**Figure . University Actions for the SDGs on HESD Portal**



actions universities are doing. Currently, the different options are: business, community outreach, student engagement, leadership and professional development, education and curriculum, research, and assessment for integrating sustainable development. Additionally it is also possible to enter keywords, to narrow the search. As of today, the portal lists more than 730 universities and over 720 actions. This is an inspiring tool for people searching for ideas.

The Portal is fed through desk research conducted by the IAU Secretariat and supported through direct submissions by universities. All universities committed to sustainable development can have a profile, although priority is given to IAU Member Institutions. The methodology to identify suitable actions is based on a number of things and can be challenging sometimes. The reason being that reporting mechanisms vary from country to country and some HEIs share information on their websites, while other do not. Furthermore, the data gathering methodology has evolved over time and so has the portal itself and even the overall understandings and definitions of sustainable development. This came with the listing of a different set of key word to identify potential actions, including: sustainable, green, gender, challenges, water, diversity and peace.

Since the adoption of Agenda 2030 in 2015, the Sustainable Development Goals play a major role in the work of IAU (as

you can read in the In Focus section of this volume of *IAU Horizons*). With the move from a predominantly environment focused understanding of sustainable development towards a more holistic understanding of the concept, the activities and actions on the portal have been diversified as well. It is therefore now also possible to sort university's actions by SDG.

While the showcasing of universities initiatives is a major part of the portal, it is also a place where to find resources and information in general about HESD. One of the pages is dedicated to supporting universities to find the necessary background information on Agenda 2030. Another one will soon display examples on how to develop a whole institution approach to SD. It is also possible to find sustainability reports by other universities in the tab "HESD references". Important events related to the theme are listed in the "Calendar of Events".

The Global IAU HESD Portal is constantly being updated and developed. While there might be other similar projects today, this is the one that has a truly global approach and can inspire people from all corners of the globe. Share your initiatives now and become part of the global movement!

## GET INVOLVED

### 🔗 Contribute to IAU publication series on SDGs

Showcase your institutions HESD initiatives in the new IAU publication series about the SDGs. IAU will publish one publication per SDG. The next publication will target SDG-5: Gender Equality.

### 🔗 Profile your institution on the HESD Portal

The Global Portal on HESD [www.iau-hesd.net](http://www.iau-hesd.net) includes now more than 730 committed universities and over 720 actions. Join the movement and register your initiatives!

**Contact:** Stefanie Mallow ([s.mallow@iau-aiu.net](mailto:s.mallow@iau-aiu.net))



## Technology in Higher Education

ICTs and their impact are ubiquitous in all aspects of higher education worldwide. Yet, for various reasons, the inclusion of and the reflection on how best to use ICTs in all functions of higher education is uneven from one region to the next, from country to country, and among institutions. The aim of IAU's action in this area is to embrace the opportunities and discuss the challenges and, through collaboration and exchange, to try and ensure that the potential is unlocked for all.

### AI - ARTIFICIAL OR AUGMENTED HUMAN INTELLIGENCE?

Every year UNESCO holds its flagship event 'Mobile Learning Week (MLW)' which places focus on Information and Communication Technologies (ICTs) in Education. Attracting more than 1,000 participants from 130 countries and including participants from all sectors of society, this year's event was organized under the topic: *Artificial Intelligence (AI) for Sustainable Development*. In collaboration with the Section for Higher Education at UNESCO, IAU was pleased to lead one of the workshops examining the potential of AI in higher education, bringing the expertise and experience of IAU Members to the attention of conference delegates. In this section, we present a few glimpses of the IAU workshop and a few messages that came out of the week-long discussions.

### IAU WORKSHOP ON LEVERAGING ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION



From left: Ram Gopal Raj (UM), Agata Lapedriza (UOC), Trine Jensen (IAU), Mandla Makhanya (UNISA) & Daniel Burgos (UNIR)

The main aim of the workshop was to explore how to leverage AI *for good* with a view to augmenting human intelligence through the support provided by machines and artificial intelligence. IAU Members from different regions showcased opportunities and research undertaken in relation to AI and higher education.

**Agata Lapedriza**, *Professor at the Universitat Oberta de Catalunya (UOC), Spain and Visiting Researcher at Massachusetts Institute of Technology (MIT) Medialab*, introduced the state

of the art in Emotional Artificial Intelligence, explaining how emotional recognition has the potential to detect when students are experiencing either success or difficulty in the learning process. This tool presents the potential to support student-centered learning and to tailor the learning process to the specific needs of students.

**Ram Gopal Raj**, *Deputy Director of the Centre for Academic Strategic Planning at the University of Malaya*, explained that in Malaysia, it is currently a challenge to ensure employability of students. The university is therefore developing a Virtual Assistant Teacher with a view to tracking the progress of student learning and competences and to link it to the needs of employers to ensure a more seamless transition from university to the world of work. He also underlined the necessity to continuously update the syllabus to adapt to the needs of the workforce and the rapid changes in technology and thereby ensuring that the university provides the most relevant competences for the students.

**Mandla Makhanya**, *Vice-Chancellor of the University of South Africa (UNISA)*, shared his experience from the perspective of UNISA, which is the largest online and distance learning university in Africa, with 400,000 students enrolled (75 % from Africa and 25 % from other regions). He explained that the university is using AI to process student applications in order to match the necessary requirements for enrollment and the information provided in the application form; furthermore they are testing how to better use this technology to assess when students are not performing well so as to offer greater support, or to detect students at risk of dropping out.

**Daniel Burgos**, *Director of the Research Institute for Innovation & Technology in Education at the International University of Rioja (UNIR), Spain* introduced the potential of learning analytics using data to enhance learning; he made a call for more openness in education. He explained that 40 % of UNIR's modules and support material is freely available whereas the remaining 60 % is fee-paying in order to sustain the work of the university. He made a case for the use of OERs as a tool to make higher education more accessible.

The session was well received by the audience and IAU was pleased to ensure that the MLW also includes considerations specifically related to higher education.

## REFLECTIONS FROM THE MOBILE LEARNING WEEK ON ARTIFICIAL INTELLIGENCE

Turning to some of the more general messages, the UNESCO Director General, Audrey Azoulay stated in her opening keynote, that *“Artificial intelligence is not a questioning of technology, it is a questioning of our own humanity. Scientific, political, philosophical, ethical questioning”*. She further stressed that it is important to reflect on what kind of AI we wish to develop and about how we prepare humanity to live with AI. She emphasized the importance of developing AI founded on humanistic values and based on transparency, inclusion, eliminating biases and which operates in an environment of trust. It is a global issue to be discussed within a multilateral and multidisciplinary framework.

AI concerns society as a whole and will impact all sectors, but the education sector, including higher education, plays a particularly important role as it prepares students to live and participate in society. Trust was a notion that was repeated in several presentations and panels, highlighting that if users do not trust AI systems, tools and products, it will not be able to live up to its potential. To generate an environment of trust, several panelists called for policies and guidelines that look at the ethical dimensions of AI, that serves to protect human rights and to foster transparency in terms of the use of data and the right to data privacy. Equally stressed was the importance that citizens of societies based on the rule of law have a legal system they can turn to in case of violation of their rights.

Another important aspect is the question of equality and inclusion, particularly in a world where only half of the population uses the internet. In this context, how to move forward ensuring that AI developments avoid exacerbating inequalities and how to ensure that the potential of AI is made available to all. One speaker referred to the fact that solidarity needs to be part of the global agenda when we redefine the global society. Many debates included references to the risks related to AI such as biases in algorithms, whether related to

questions of gender, culture or language. AI has a tendency to point to all unsolved problems in the current ‘physical’ reality as we seek to programme computers to understand this reality. The question is whether humanity is up to the challenge - because it is here.

AI is maybe a buzzword, and many panelists agreed that it is wrongfully labelled, as it is neither ‘artificial’ nor ‘intelligent’. It is rather a question about how humans will develop machines and use technology to support humanity in their daily lives, whether this relates to detecting diseases, supporting humans by undertaking routine and administrative tasks or to free up more time for the essential tasks of teachers for example. While it is probably too late to rename this trend - that many refers to as a new revolution - it is important to keep in mind that, at the end of the day, it is about how humans develop machines in order to support or to augment human intelligence. It is about how we, humans, decide to use technological tools to help shape the future of our societies as well as of higher education.

The main concern remains whether policy makers are ready to reform; whether they have the capacities to understand the issues at stake and to adapt to a new context with different types of jobs, different types of situations that needs to be governed and regulated. This is necessary, unless we wish to leave it in the hands of tech companies that - in spite of their goodwill programmes - are steered by commercial gain. If only the main objective could be to reinvent a global society with AI that seeks to improve the conditions of humans and to ultimately build human capital for sustainable societies in response to the Global Agenda 2030.

UNESCO is currently exploring the potential of developing a normative instrument for artificial intelligence and ethics and IAU is looking forward to following these developments. In parallel, we invite IAU Members to express interest in or to provide suggestions about AI initiatives or activities.

Programme and resource: <https://en.unesco.org/mlw>

### GET INVOLVED

#### 🕒 Contribute to the blog on the role of technology in higher education

Read and get inspired by the blog post and consider contributing an article to the IAU blog on digital transformation in higher education. You wish to showcase successful integration of technology in higher education, express your views and concerns about the development, share innovative ideas on how to use digital technology to improve higher education. Send your essay (max 800 words). Please include a photo, short bio-note and the logo of your institution/organization.

[www.iau-tech.net](http://www.iau-tech.net)

#### 🕒 Interested in hosting an IAU Institutional Site visit?

This year IAU met at UOC (the Open University of Catalonia) in Barcelona, Spain in a group of 20 representatives from IAU Members in order to learn from the extensive experience of UOC in online learning. Is your institution innovative in the way you include technology in higher education and you wish to welcome IAU Members to learn from your experience? Contact with IAU to learn more about this opportunity.

**Contact:** Trine Jensen ([t.jensen@iau-aiu.net](mailto:t.jensen@iau-aiu.net))

# IAU KNOWLEDGE HUB

## New IAU publications

### Annual Report



In February 2019 IAU published its 2018 Annual Report, which provides an overview of past year's achievements. IAU enhanced its engagement with

Members, strengthened partnerships and launched new initiatives for the benefit of higher education. The hard copy of the report was sent to Members in February. The online version is available on the IAU website in the 'About IAU' tab <https://iau-aiu.net>

### Internationalisation of Higher Education – Developments in the European Higher Education Area and Worldwide



"Internationalisation of Higher Education – Developments in the European Higher Education Area and Worldwide" provides a broad coverage of issues pertaining

to internationalisation such as governance, leadership and management; funding at national and supranational levels; internationalisation strategies and activities; access, mobility, student success and lifelong learning.

It is published four times a year, includes 6–7 articles per edition and is available both in printed and online versions. Get your welcome offer – 50% off for a campus license as an IAU Member – here:

<https://www.handbook-internationalisation.com/en/preise-und-bestellung/>

**Contact:** Giorgio Marinoni. ([g.marinoni@iau-aiu.net](mailto:g.marinoni@iau-aiu.net))

### Higher Education Policy (HEP)

#### HEP 31/4 – December 2018



The final edition of volume 31 of HEP (2018) saw the publication of three papers received for the IAU-Palgrave prize essay competition on *Sustainable development as a*

*new academic discipline: Towards a Definition of Environmental Sustainability Evaluation in Higher Education; Mainstreaming Education for Sustainable Development at a Swiss University: Navigating the Traps of Institutionalization; and Sustainability Governance at Universities: Using a Governance Equalizer as a Research Heuristic.* Other papers looked at social engagement in Latin America, international student recruitment, intra-institutional research collaboration, and scientific productivity in China. (<https://link.springer.com/journal/41307/31/4>).

#### HEP 32/1 – March 2019

The first edition of the year provides a mini-special edition entitled **Taking Account of 20 years of Quality Assurance in German Higher Education**, with four contributions addressing different aspects of the German higher education accreditation regime, looking at political pressures, academic resistance, and how quality

managers deal with academic resistance. Other papers look at the meaning of HE post-massification, knowledge interactions between university and industry, and an empirical study of researchers' view on university–industry collaboration (<https://link.springer.com/journal/41307/32/1>).

#### SUBMIT A PAPER TO HEP

If you are interested in submitting a paper to HEP, please visit the online submission portal on <https://www.editorialmanager.com/hiep/default.aspx>; and you will find author instructions on <http://www.springer.com/education+%26+language/journal/41307>.

### IAU Lynx

IAU monitors higher education developments worldwide and presents a snapshot with a series of links to new policies, initiatives and projects on various higher education topics on a monthly basis. Previously the information was disseminated as part of the IAU monthly newsletter, but in trying to improve and to make information even more accessible, it is now presented on the IAU website. Please visit the IAU Lynx on the IAU website under the menu 'Knowledge Hub' <https://iau-aiu.net>



# The makeover of the IAU World Higher Education Database

IAU is pleased to announce that a new version of the WHED portal will be available online in June 2019, to ensure better data protection and enhanced visibility for IAU Members.

While information on systems and credentials across the world remains open access, different subscription offers will provide IAU members with special features to boost their visibility and make most use of WHED's up-to-date and authoritative information on higher education institutions.



WHED BENEFITS	IAU Member	Non-Member
<b>INCREASED VISIBILITY</b>		
<ul style="list-style-type: none"> <li>IAU Member logo to mark membership</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li>Complete institutional profile visible to all users</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li>Priority for profile updates on request</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li>Profile listed in the top results in searches</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li>Dedicated space for your institution's logo and visuals</li> </ul>	✓	✗
<b>ENHANCED ACCESS TO INFORMATION (196 countries and territories)</b>		
<b>Systems and credentials</b>		
<ul style="list-style-type: none"> <li>National HE structure</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Quality assurance systems</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Governing bodies</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li>Credentials and admission criteria</li> </ul>	✓	✓
<b>Institutions</b>		
<ul style="list-style-type: none"> <li><b>Basic Info:</b> HEI name in English &amp; native language, country</li> </ul>	✓	✓
<ul style="list-style-type: none"> <li><b>In-depth info:</b> History, source of funding, fields of study, divisions and degrees offered, accrediting body, admission requirements, key figures</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li><b>Key Contacts:</b> Name and phone number of the head of institution, administrative officer and international relations officer</li> </ul>	✓	✗
<b>ADVANCED SEARCH OPTIONS</b>		
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Country, region, governing bodies, officers, credentials	✓	country only
<b>Institutions</b>		
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<ul style="list-style-type: none"> <li>Free extractions of up to 250 results</li> </ul>	✓	✗
<b>DISCOUNT ON WHED PRODUCTS</b>		
<ul style="list-style-type: none"> <li>Discount on customized extractions</li> </ul>	✓	✗
<ul style="list-style-type: none"> <li>Preferential rate on the International Handbook of Universities in print or e-book version</li> </ul>	✓	✗

## Need more information about IAU membership?

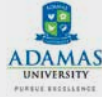
Contact: [j.becker@iau-aiu.net](mailto:j.becker@iau-aiu.net) or visit <https://iau-aiu.net/Join-IAU>

# IAU Membership News

## NEW MEMBER INSTITUTIONS

### INDIA

Adamas University  
[adamasuniversity.ac.in](http://adamasuniversity.ac.in)



### SWEDEN

Karolinska Institutet  
[www.ki.se/en](http://www.ki.se/en)



### INDIA

ITM University  
[www.itmuniversity.org](http://www.itmuniversity.org)



### TURKEY

Yeditepe University  
[www.yeditepe.edu.tr](http://www.yeditepe.edu.tr)



### IRELAND

Cork Institute of Technology  
[www.cit.ie](http://www.cit.ie)



### UKRAINE

Kyiv School of Economics  
[www.kse.org.ua](http://www.kse.org.ua)



### MEXICO

Hebrew University  
[www.uhebraica.edu.mx](http://www.uhebraica.edu.mx)



### UKRAINE

Ukrainian Medical Stomatological Academy  
[www.umsa.edu.ua](http://www.umsa.edu.ua)



### MOROCCO

School of Textile and Clothing Industries  
[www.esith.ac.ma](http://www.esith.ac.ma)



### UNITED KINGDOM

Durham University  
[www.durham.ac.uk](http://www.durham.ac.uk)



### NIGERIA

Al-Hikmah University  
[www.alhikmah.edu.ng](http://www.alhikmah.edu.ng)



### NIGERIA

Umaru Musa Yar'adua University  
[www.umyu.edu.ng](http://www.umyu.edu.ng)



### RUSSIAN FEDERATION

State University of Management  
[www.guu.ru](http://www.guu.ru)



### SUDAN

Elsheikh Abdallah Elbadri University  
[www.eaeu.edu.sd](http://www.eaeu.edu.sd)



### SUDAN

Shendi University  
[www.usd.sd](http://www.usd.sd)

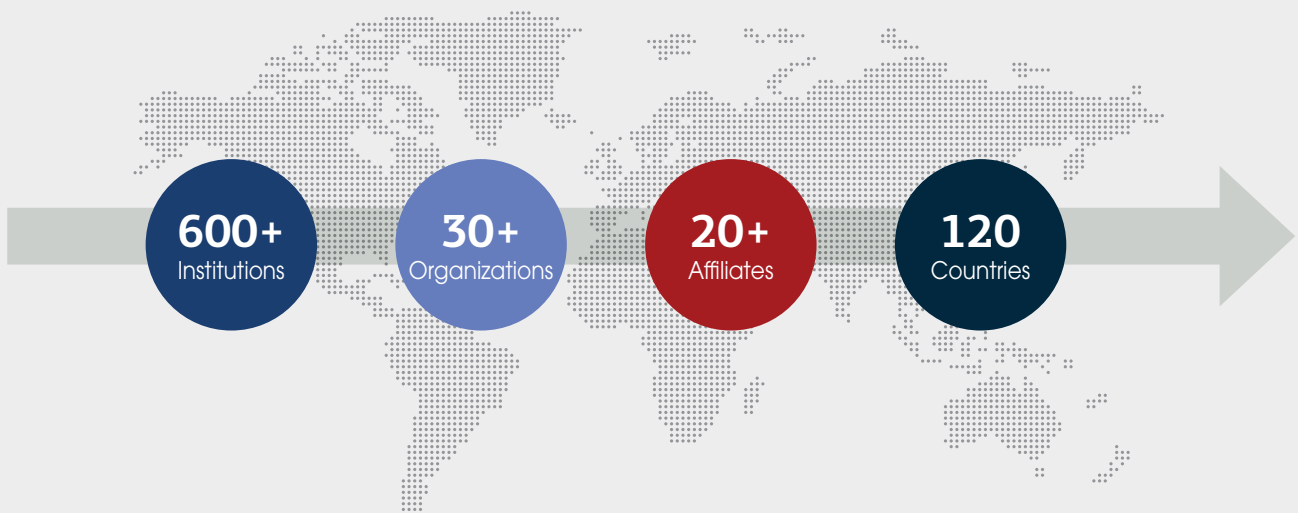


## NOT YET A MEMBER?

Join the growing global higher education community now!

More information on <https://iau-aiu.net/Join-IAU>

Contact: [j.becker@iau-aiu.net](mailto:j.becker@iau-aiu.net)



# IN FOCUS

## Universities and Agenda 2030: Engaging with the SDGs

In September 2015, the United Nations General Assembly unanimously adopted *Transforming our world: the 2030 Agenda for Sustainable Development*. This Agenda uses a set of 17 Sustainable Development Goals (SDGs) to define the kind of future the world should strive to achieve and how to build such a future. One of the key messages of Agenda 2030 is “that no one should be left behind”. This Global Agenda concerns everyone, everywhere: the goals set are truly global and combine all dimensions of sustainability.

Since the early 90s, IAU fosters the role of higher education in support of sustainable development (HESD), encourages institutions to commit to Agenda 2030 and looks at how the Agenda contributes to the transformation of HEIs themselves.

Collaborative initiatives have emerged over the last four Decades to support inter and transdisciplinary work. IAU is a key partner network supporting a whole of institution approach to SD in the UNESCO Global Action Programme on Education for Sustainable Development.

As a recognized global network in the international higher education community, IAU developed the *IAU Global Cluster on HESD*, launched at the IAU 2018 International Conference in Kuala Lumpur. IAU is proud to work with a strong and diverse group of HEIs from around the world, committed to developing innovative joint initiatives and synergies.

All universities involved are seen as equals, no matter their location, size, age or mandate. Connections and partnerships are built in particular between unusual sets of institutions. This IAU Cluster is about enabling initiatives between universities committed to working across differences and borders on an equal footing. Peer-to-peer learning sparks new ideas and creativity among the Cluster members and we expect that this will trigger the much-needed innovative approaches to the global goals.

The Cluster encourages a holistic approach to the SDGs. It works on all dimensions of the SDGs, combining economic, social, cultural, and environmental sustainability. The ultimate aim is to foster teaching, research and community engagement projects that will result in better-educated critical citizens, better prepared to address the world's global and local challenges. Student initiatives receive special attention as well.

The IAU Cluster also connects HE associations and networks from around the world working on sustainable development or wishing to get involved in it. This forms part of the lead role IAU takes on *SDG 17: partnerships for the goals*.

In a world where the relevance and value of HE are questioned and too often gauged for its financial value proposition, the aim of the Cluster is to demonstrate the essential contribution of higher education to the SDGs.

The papers in the In Focus section illustrate the various lead institutions contributions to Agenda 2030 in the context of the IAU Global Cluster. We hope that this will inspire other universities to join the effort towards achieving a more sustainable present and future.

- 18 **The Role of Higher Education in Agenda 2030: University of Ghana's engagements with the SDGs** by *George Oduro Nkansah and Ebenezer Oduro Owusu, Ghana*
- 19 **SDG 2 - End Hunger: How to build an international team that reaches the goal? Preliminary Experiences** by *Alfonso Parra and Sandra Guarín, Colombia*
- 21 **UOC: an online university engaged with sustainable development taking the lead on SDG3** by *Carme Carrion, Gemma Xarles and Nadja Gmelch, Spain*
- 22 **Quality Education and lifelong learning for all: trying to get to grips with the iridescent, multifaced, and at the same time universal character of SDG 4** by *Maik Adomßent, Germany*
- 23 **SDG 5 - Achieve gender equality and empower all women and girls** by *Chiara Elefante and Alessandra Scagliarini, Italy*
- 24 **Acting upon Sustainable Development Goal 6 – Clean Water and Sanitation** by *Masoud Parsinejad, Iran*
- 25 **Assam Don Bosco University: towards the realization of SDG 7 – Affordable and Clean Energy** by *Bikramjit Goswami and Jesif Ahmed, India*
- 27 **University of Gothenburg's Strategy for SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** by *Eddi Omrcen and Gunnar Köhlin, Sweden*
- 28 **BAU Goal 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** by *Ibtihal El-Bastawissi, Lebanon*
- 29 **Advancing Research on Reducing Inequality: the University of Tsukuba Initiative** by *Muneo kaigo and Hidehiro Yamamoto, Japan*
- 30 **University of Siam: Leading progress toward SDG 11** by *Pornchai Mongkhonvanit and Kanjana Mahattanatawee, Thailand*
- 31 **The University of Vechta (Germany) and SDG 12: Moving From Individual Actions to Structural Engagement** by *Margit Stein and Detlev Lindau-Bank, Germany*
- 33 **Universities charting new development pathways to address climate change** by *Stacy Richards-Kennedy, Jamaica*
- 34 **Ocean sustainability through higher education and research partnerships** by *Lise Øvreås, Norway*
- 35 **The University of Costa Rica and SDG15: Life on Land** by *Mahmood Sasa Marin, Costa Rica*



## 01 The Role of Higher Education in Agenda 2030: University of Ghana's engagements with the SDGs



by **George Oduro Nkansah**, *Director of the Institute of Applied Sciences and Technology* and **Ebenezer Oduro Owusu**, *Vice Chancellor, University of Ghana*



Over the years, universities have been seen as a place where people are trained in various disciplines to add to the skilled labour of a country. Universities have never really been factored as actors in political and economic policy decisions, which is evidently telling on the state of many countries.

Universities play an important role in the development of societies, as they educate the citizens, future leaders, decision-makers, business leaders, innovators, among others. Through their research, new knowledge is constantly generated which can be used to address societal needs and challenges that confront the world today.

It is interesting to note that, the role of Universities as hubs for learning, knowledge generation, research and extension is never really thought of. The caliber of faculty and the amount of innovations and research they produce annually have not been developed into products, although the literature is available in libraries of universities. The Private sector and Government partnerships with the universities/academia are limited. These and other challenges have created gaps between the universities' findings and product development.

If Agenda 2030 is to be achieved then the Universities must play their role and engage with the SDGs and develop new knowledge, trigger innovation and introduce of technologies that are geared towards the 17 goals. Universities must position themselves proactively in policy issues and policy actors must recognize the university for what they are, especially as a place where ground breaking research and inventions are made which, if implemented, can drive regional and national economies.

The University of Ghana has decided to be an active player in the economy of Ghana, by leveraging on its available knowledge, innovation and technology to help develop the country. These informed the *Institute of Applied Sciences and Technology (IAST)* to set-up the *Ghana Economic Well being and the Economic Inclusion & Poverty Reduction* projects by documenting strategies and projects for poverty eradication. These projects were recognized by the International Association of University (IAU); this is why the University of Ghana has been invited to lead work on the SDG 1 "No Poverty", through IAST.

IAST's mandate is to foster transfer of knowledge, technology and innovation generated by the University to meet the needs of industry. IAST is a multidisciplinary institute, which brings together innovators from the entire University of Ghana.

Through the Institute, the University was able to carry out the following projects in collaboration with internal (UG) and external (industry) stakeholders.

- Organized internship placements for UG students
- The Student Innovation Challenge
- Industry-Academia Lectures and Exhibition
- Seminars, Workshops and Conferences
- Training on the Envirodome Greenhouse Technology
- Preparatory engagements towards the Science Park Agenda
- Set up Greenhouses on campus
- Industrial Students Internship

### Other projects the University is currently undertaken are:

- Social Entrepreneurship, as a means to achieve Sustainable Development Goal 1.
- Evaluating Female Entrepreneurship, as a Panacea for Poverty and Inequality in Sub Saharan Africa: Towards the achievement of Sustainable Development Goal.
- Through the *West Africa Centre For Crop Improvement (WACCI)*, the University of Ghana is working at achieving the **SDG 2 'Zero Hunger'**, putting together all stakeholders at a conference to deliberate on ways to transform the agriculture and food sector.
- The Institute for Environment and Sanitation Studies (IESS) is currently working assiduously on sanitation issues in Ghana, by looking at Ghana's sanitation challenges and possible solutions. IESS has also organized a conference of all stakeholders to deliberate on the sustainability and environmental management. New Sustainability and Environmental sanitation Master of Arts programmes have been introduced. All these initiatives are geared towards **SDG 6 'Clean water and sanitation'** realization.

- The University of Ghana Business School is currently running monthly seminars on 'Entrepreneurship Entropy in the 21<sup>st</sup> Century'. This is geared towards honing in the entrepreneurship skills of both students and faculty, which translates into **SDG GOAL 8** 'Decent work Economic Growth'.

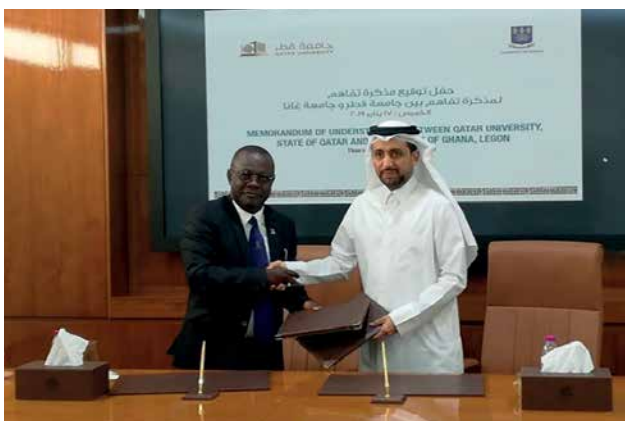
The Vice Chancellor of the University has also instituted the VCs Green project, which involves planting of trees and education of the UG community about the need to protect the environment. There is also the waste segregation programme on going on the UG campus.

The above clearly shows that though the University of Ghana, through IAST is leading work on the SDG 1 'No Poverty', it is also working on the other SDGs, as the goals are interrelated and influence each other.

Also, The University of Ghana has over 30,000 students who are currently being sensitized about the SDGs to become SDG ambassadors and to train them to think up solutions to everyday problems, which will in one way or the other contribute towards the SDG achievement.

The President of Ghana is a co-chair of the UN Committee for SDG realization. Consequently, a strong unit (i.e. SDG Advisory Unit) in the office of the president has been formed to help tackle the SDGs. This unit is working closely with the Ministry of Planning, Ministry of Finance, Ghana Investment Promotion Centre and the National Development Planning Commission. The University of Ghana has been able to partner with the National SDG Advisory Unit, Office of the President towards the SDGs realization.

The University of Ghana believes in strong partnerships, which serves to achieve **SDG 17** 'Partnerships for achieving the goals'. In January, on the occasion of the Times Higher Education Emerging Economies Summit, in Doha, Qatar, the University of Ghana signed an MOU with Qatar University to identify key areas where collaborations could be established effectively towards the SDGs realization.



The Vice Chancellor of the University of Ghana, Prof. Ebenezer Oduro Owusu signing an MOU with the President of Qatar University, Dr. Hassan Rashid Al-Derham.

As part of its role in leading the SDGs the University of Ghana is currently working with two universities (i.e. McMaster University, Canada and the Tokyo University of Agriculture and Technology, Japan) towards SDG 1 achievement. Three universities are yet to join the cluster.

The University of Ghana believes that there are several ways in which the university can increase its impact in Ghana and the world by coming together and upscaling initiatives through partnerships for impactful outcomes. The University of Ghana is open to all partnerships that will help us achieve our goal of contributing to Agenda 2030 and making the world a better place for us and generations yet to come.

## 02 SDG 2 - End Hunger: How to build an international team that reaches the goal? Preliminary Experiences



by **Alfonso Parra**, Science, Technology and Innovation Vice President and **Sandra Guarín**, International Office Director, Universidad Antonio Nariño, Colombia.



The Universidad Antonio Nariño (UAN) is a young university founded in Bogota, Colombia in March 1976. The Founders' vision was to democratize the access to high quality higher education all across the country. UAN is a comprehensive university, with a national presence and a regional vocation, offering programs in 15 different faculties from the undergraduate to PhD level.

UAN attempts to reach its goals by establishing mechanism such as our *Institutional Development Plan (IDP) 2017 - 2021*. It includes clear references to sustainable development, embracing its purpose to prepare students for an inclusive and sustainable society. UAN recognizes the challenges to build a nation in peace, with a growing and sustainable economy, with an efficient use of its own resources through taking care of its public service expenses and monitoring of the environmental



impact of its facilities. UAN is looking forward to creating a culture of sustainability and environmental concerns in the communities where it develops its functions. [1]

By nature, UAN is a diverse university where faculties evolve in different ways. The Civil and Environmental Engineering Faculty was the first academic entity to embrace the Sustainable Development Goals (SDGs) by integrating its principles in its curricula and syllabi. Today, students in the second half of their career complement their learning process by addressing challenges proposed by professors. **SDG 6** and SDG 2 are closely related to the Faculty. Faculty also suggest that all students enrolled for an elective course in SDGs. Students are the citizens that will manage private and public organizations in the future. Thus, we expect they act in a more sensitive manner and make more accurate decisions with positive impacts for human kind and the planet.

The challenge we face is how to motivate others to adopt and integrate these experiences and practices in their activities. Initially, in 2018, we created a SDG task force, which included our President, Deans, Vice-presidents, the Internationalisation Officer and the Planning Officer. This collaborative and participative work dynamics for the development of strategic projects in the University has been coordinated by the UAN Internationalization Laboratory (UAN INT-LAB). In fact, the connection between internationalization and SDGs is one of the topics we are most interested in developing.

Along with this effort, in June 2018 our President formally embraced the IAU Global Cluster on HESD initiative. The University leads the work related to SDG 2 – “End Hunger”. That was a clear motivation for the academic community to get on board as they also see the relevance of the SDGs for Colombia and for the world. SDG 2 allows for the contribution and the collaboration of at least half of our Faculties in Sciences, Health, Industrial, Electronics, Civil and Environmental Engineering, Computer Sciences, and Arts.

To contribute and guide the impact of research results on the SDG’s, *The Science, Technology and Innovation Vice-presidency*, included this program in the Annual Internal Research Call for Project Funding for 2019. The call includes a special track to submit proposals related to **SDG 2** and **6** with participation from International (IAU), national and regional and internal research groups. The community impact of work linked to the SDGs are accounted for in the proposal evaluation. The accepted projects will start in August 2019.

In order to develop the full action plan to address the challenge identified as part of SDG 2, different national and international actors are invited on board. UAN seeks to connect with various actors, at the national and international level, interested in contributing to SDG 2 and expanding their networks of cooperation in SDG research and practice. We aim to generate knowledge through networking and will use diverse mechanisms to connect and communicate. We wish

to contribute at the local level and offer inputs to those initiatives addressing the 2030 development agenda at the international and global levels. **The invitation to those who wish to participate is open.**

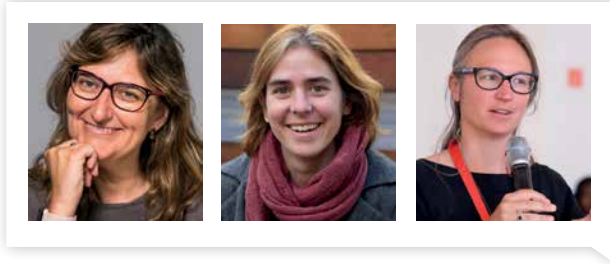
UAN is also a member of the Association of Colombian Universities (ASCUN). Last February ASCUN organized a first meeting on “SDGs and the Colombian Universities”; it gathered more than 30 universities and other organizations. In May, a national event will gather the most important national actors in SDGs in the country. The event will foster the establishment of links to transfer and adopt practices and projects addressing the goals and triggering new initiatives.

We believe in the future, and we believe in our students. We believe in collaboration, in adoption and in sharing and scaling up project outcomes and good practices; this will result in progress. We believe in international, interdisciplinary and intercultural approaches. We believe in a better world. We hope to End Hunger.

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## 03 UOC: an online university engaged with sustainable development taking the lead on SDG 3



by **Carme Carrion**, Faculty of Health Sciences & eHealth Center, **Gemma Xarles** & **Nadja Gmelch**, Globalisation and Cooperation Department, UOC, Spain



The Universitat Oberta de Catalunya (UOC) is an innovative university, rooted in Catalonia and open to the world. It offers people lifelong learning, while carrying out research feeding into the knowledge society. Its educational model is based on personalization and accompanying students using a 100% eLearning strategy.

### UOC's institution-wide approach to sustainable development

The UOC strongly believes that working to achieve the Sustainable Development Goals (SDGs) is a responsibility to also be taken up by universities. With the aim to become a global university with a strong societal impact, the UOC has made the United Nations 2030 Agenda part of its strategic plan. One of UOC's main focuses is its work on **SDG 4**, Quality Education. As an online university, UOC is convinced that eLearning can improve access to higher education and provide lifelong learning for all. The UOC's online learning model gives students access to quality education by removing the obstacle of 'distance' and thereby responding to the needs of people with varying needs and situations. Based on almost 25 years of experience, the UOC accompanies different ministries of education as well as quality agencies in countries like Jordan, Mexico, Ecuador or Chile to improve the quality of the provision of online education in the respective countries. UOC contributes to the challenge of making quality and accessible online education a reality.

The learning process of UOC's academic programmes aims at delivering knowledge and competences that allow students to

address real needs of society. In this regard, UOC collaborates with different international organizations, including UNITAR, the FAO or the World Tourism Organisation, offering Master's Degrees in Conflict, Peace and Security, Food Security and International Food Governance or Strategy and Sustainable Management for Tourist Destinations and promoting volunteering among its students or the organisation of participatory final works, where students' research addresses the real needs of society through collaboration with NGOs or public administrations. In addition, UOC offers scholarships to refugees.

The UOC's research aims at improving the quality of life of people living in the information and knowledge society. There are many examples in which UOC's research influences and improves policy, both at local level as well as in other environments, that relates to some of the goals set in the Agenda 2030. One of the examples is the contribution UOC is making through research in health sciences.

### UOC's commitment towards SDG 3: Good Global Health and wellbeing for all

UOC has wide experience in working towards SDG3, especially in the area of eHealth for which UOC has a specialized research center, the eHealth Center. In terms of education and training, the university runs programmes that look at some of the most important challenges that we have to face as a society today. Specifically, the UOC runs masters degrees and postgraduate programmes on Food Security: Assessment and Action (with support from the United Nations' Food and Agriculture Organization (FAO) and the European Union), Skin NTDs, HIV and other sexually transmitted infections (in collaboration with different partners from the public and private sector), preventing prevalent diseases through nutrition and sport, or empowering professionals through eHealth. The UOC is also evaluating the societal impact of some of these programmes, including those on Food Security and Skin NTDs. Furthermore, a massive open online course (MOOC) on Health Literacy is designed and developed, which will be launched in May. Finally, the eHealth Center fosters other eHealth projects in different areas such as mental health, endocrinology or public health with the goal to help professionals and patients to manage their health situations.

This wide experience and expertise has brought the WHO to designate the UOC's Faculty of Health Sciences as a collaborating centre for eHealth. The IAU has selected the UOC as "SDG 3 Champion" in the Higher Education and Research for Sustainable Development (HESD) cluster. This means that the UOC will be leading a team of committed and diverse universities around the world working together to foster higher education's understanding and use of the Good (and Global) Health and Well-being SDG from an international and multidisciplinary approach. The team will consist of reference universities representing all the WHO areas.



The work on SDG 3 will focus on two main areas: education and training, and research. The university has appointed its Faculty of Health Sciences and the eHealth Center to lead this initiative. We very much look forward to collaborating with other IAU members during the coming years, both in fostering the contribution of higher education to sustainable development in general as well as fostering our and others' commitment to Good Global Health in particular.

## 04 Quality Education and lifelong learning for all: trying to get to grips with the iridescent, multifaced, and at the same time universal character of SDG 4



By **Maik AdomBent**, *Leuphana University of Lüneburg, Germany and UNESCO Chair 'Higher Education for Sustainable Development'*

*This paper is co-signed with Jana Dlouhá, Charles University, Charles A. Hopkins, York University, Heila Lotz-Sisitka, Rhodes University, Dzulkiifi*

**Abdul Razak**, *Islamic University Malaysia*, **Mirian Vilela**, *University of Peace*.



As part of the 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015, countries of the global South and North alike are directing their future actions to 17 Sustainable Development Goals (SDGs). Concrete objectives, measures and indicators aim to promote human rights and a good life for all people on our planet in the sense of sustainable development. But on closer examination, there are trade-offs and contradictions, not only between different sustainability goals - for example consumer behavior may lead to conflicts between sustainable food production (**SDG 2 and 12**) and nature conservation (**SDG 14 and 15**) elsewhere -, but also within individual SDGs.[1] This is not least due to the fact that they are to be regarded as a political concept and not as a consistent result of scientific insights. Accordingly, there are at the present time far more unanswered questions about the goals set for 2030 than appropriate answers.

On that note, research and education are required, both of which are core tasks of higher education institutions (HEIs),

making them key players when it comes to exploring and testing possible ways to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", as SDG 4 reads. Even more explicitly, target 4.7 places education in the SDG concert in a central role as being essential for the success of all 17 sustainable development goals. Yet in the face of this ambitious and ambiguous target horizon, the question arises on how to face such a grand challenge.

As members of the IAU HESD Cluster responsible for SDG 4, our working group wants to take up those challenges on several levels. In strategic terms, this is done by the composition of the participating institutions, covering as many different facets and areas of education as possible in order to address the broadest possible spectrum of sustainability-oriented education. As the leader for SDG 4, Leuphana University of Lüneburg has a long-standing tradition in the field of integrative environmental and sustainability sciences – not only in transdisciplinary research (with the Faculty of Sustainability founded in 2019), but also in the areas of teaching, cooperation with practice and campus development.[2] The team is composed of the following strong partners with their unique fields of expertise, be it in teacher education for sustainable development (**York University, Canada**), transformative social learning (**Rhodes University, South Africa**), environmental education and its measurability (**Charles University, Czech Republic**), internationalisation and faith-based-education (**International Islamic University, Malaysia**), and values-based education with the Earth Charter (Earth Charter Center for Education for Sustainable Development, **University for Peace, Costa Rica**) and the IAU.

Together we aim to develop systemic approaches that fill the whole-institution approach with life. A first prospected project for collaboration is the joint development of a "Sustainable Universities Barometer" that is intended to continuously map the impact of the higher education sector in contributing to sustainability and meeting the goals of the Agenda 2030 on a global, regional and national scale. Besides insights related to the sustainability Agenda as such, it focuses on SDG 4 and is informing the follow up UNESCO *Post Global Action Program on Education for Sustainable Development*. It should be noted here that for this purpose, our group is enhanced by further experts on this matter – a circumstance, as we believe, perfectly depicts the networking philosophy of the IAU HESD Cluster.

As another important task, we have set ourselves the task of documenting specific examples of SDG-related implementation in higher education. Here a promising number of pertinent publications are already to be found.[3] However, in view of our scientific self-understanding, a fundamental mission will be to not only critically monitor the implementation process of the Sustainability Agenda by 2030 and, where necessary, to engage in science and/or education policy making, but also to critically reflect on the conceptualization of the SDGs themselves.

As explained above, education plays an essential role in the success of all 17 SDGs in the Agenda 2030 concert.



Therefore, we should not forget that we ourselves are also learners in this exciting process. Thus, given the gigantic task lying ahead, a little modesty seems appropriate; at the same time, we shouldn't forget that we do not start from scratch, because even as dwarfs, we are standing on the shoulders of giants.

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## 05 SDG 5 - Achieve gender equality and empower all women and girls



by **Chiara Elefante**, Professor, & **Alessandra Scagliarini**, Professor, Alma Mater Studiorum, Università di Bologna, Italy



Searching for solutions to short-term challenges and addressing the longer-term imperatives of sustainable development, are all integral parts of Universities' social responsibility in research, teaching and outreach. The University of Bologna (UNIBO) is committed to the values of sustainability promoting knowledge-based development and social equity. Sustainability is a core value for UNIBO. Our institution is engaged with local and global communities, acknowledging and prioritizing its commitment to serve society.

Nowadays, quality assurance systems are still based on retrospective quantitative data, largely excluding what cannot be reduced to numbers. Such systems may pose a risk for a reduced commitment of Universities that could lose sight of present and future social challenges.

The University of Bologna, within the perspective adopted in its Strategic Plan 2016-2018, and in continuity with the effort of extensively reporting, which started with the initial publication of the Social Report [1] and the Gender Equality Annual Report [2], adopted an innovative way of monitoring and reporting on the contributions made by its institutional activities to achieve the 17 Sustainable Development Goals (SDGs) of the U.N. 2030 Agenda [3].

More than ever before, Universities need to provide leadership and cross-cutting key competences in relation to the multiple challenges the society is facing. In particular, leadership is needed for the effective co-ordination of the very different sectors and disciplines required to take informed decisions and responsible actions for sustainable development. To put in place such a coordination, an educated workforce, able to adopt systemic approaches, is greatly required and new inter- and transdisciplinary education programs are needed to provide the proper skills. System accreditation system rules may constitute a barrier to such an innovation in education. To promptly respond to these crucial needs, UNIBO recently launched the extracurricular course 'Service Learning and Social Engagement' [4] and a master in 'Resource Economics and Sustainable Development' [5].

Developing and taking part in networking and international partnerships represent another way to further contribute to the achievement of the SDGs. A recent example, is represented by the UNA Europa University Alliance [6], of which UNIBO is one of the funding members. Sustainability represents one of the core values and interdisciplinary areas for inclusive research-based education of this new entity. The 7 universities of the alliance are committed to contribute to the SDGs by providing leadership and promoting a systemic approach in research, education and



outreach. UNIBO is also a partner of GEMMA, the first Erasmus Mundus Master's Degree in Women's and Gender Studies in Europe [7]. Gender equality is a multidisciplinary research topic. Being a comprehensive University, UNIBO has launched a network of scholars and researchers from various disciplines named Integrated Research Team (IRT) Alma Gender in 2015 aimed at promoting research and teaching on gender issues [8].

UNIBO joined the IAU HESD initiative to enforce its partnerships on sustainability by leading the SDG5 Cluster Team. UNIBO is in fact particularly active on Gender Equality issues, including intersectionality, with the ultimate goal of stamping out discrimination. The University has realized, supported and approved the *2017-2020 Gender Equality Plan (GEP)*, which is part of the University's strategies to contribute to sustainable global development. The GEP is one of the main actions envisaged by the PLOTINA project [9], funded within Horizon 2020 Program and coordinated by UNIBO. The Gender Equality Plan gathers positive action policies linked to the SDGs and addressing the recommendations of the European Institute for Gender Equality. UNIBO embraced the UNESCO concepts of Education to empower individuals to act in complex situations in a sustainable manner. In the context of SDG 5 an extracurricular course on "Diversity Management" was recently launched. The course aims at disseminating knowledge on the prevention strategies of stereotypes and prejudices and on the methods used to enhance diversity within groups and organizations. The SDG 5 Cluster team includes, at present, 5 satellite institutions: **Don Bosco University** (India), **Universitat Oberta de Catalunya** (Spain), **Universität Vechta** (Germany), **MacMaster University** (Canada) and **Universidade Estadual Paulista** (Brazil). The Cluster will compare the different strategies and actions on Gender Promotion carried out within institutions, with the final goal of sharing best practices and producing reports and guidelines for decision-makers.

Universities are large employers thus gender equality is not only an issue related to activities toward society, but it applies to all its community. As many other universities, UNIBO runs a number of initiatives related to gender equality issues, reduce stereotypes, and allow women to reach their full potential in their academic carrier.

UNIBO is committed to policy and practice for gender equality to reconcile work and family life. From 2013, the *Guarantee Committee for Equal Opportunities Employee Wellbeing and Non Discrimination at Work* (CUG) [10] has been established. CUG is responsible for the publication of the Gender Equality Annual Report and works in close cooperation with the Rector's Delegate for Equal opportunities. Different actions have been implemented to support family life such as kindergarten and summer camps for employees' kids. Maternity leave is promoted and considered for a fair activity evaluation of employees. A number of initiatives are organized for the benefit of students to reduce gender stereotypes in their study career choice. Meetings are promoted, in collaboration with social actors dealing with gender violence and empowerment events are

organized involving women leaders. Developing good practices for the benefit of the university community have indeed a positive impact on society as these can be transferred to become the basis for policy development and create awareness to break down stereotypes that are still present in our societies.

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## 06 Acting upon Sustainable Development Goal 6 – Clean Water and Sanitation



by **Masoud Parsinejad**, Lecturer,  
University of Tehran, Iran



Ensuring water resources is fundamental to well-being of human society and to ensuring a future on our planet. Water not managed efficiently and equitably is considered as the greatest concern to sustainable development. It is central to the production and preservation of numerous benefits and services for all. Reliable water resources can play a key role in resilience

of social and economic developments of countries all over the world. It is estimated that two-thirds of the world's population will live in water-stressed countries by 2025.

In line with the United Nations' SDGs, most particularly SDG 6 entitled "*Ensure availability and sustainable management of water and sanitation for all*", governments are committed to objectives for clean water and sanitation by 2030. Universal and equitable access to safe and affordable drinking water, sanitation, and hygiene are at the center of this goal.

This goal, however, is threatened by other serious challenges, such as food shortage, air pollution, economic uncertainty and mismanagement in many developing countries.

In the context of the overall work fostered by the IAU HESD Cluster, the University of Tehran has taken the responsibility to lead the work on *SDG 6: Clean Water and Sanitation*. This is due to its extended and comprehensive involvement in research and education in various aspects of water science and technology and management, since 1934. The University of Tehran is home to the Water Institute (UTWI), an organization mainly acting on a networking basis for coordinating interdisciplinary and joint applied research activities, between various divisions involved in water related activities within the University of Tehran and beyond.

In addition, in 2016, the *Regional Institute of Water Education* (RIWE) was established as a joint project between the Ministry of Energy, University of Tehran, UNESCO-IHE and UNESCO Tehran Cluster Office. The overall objective of RIWE is to improve the management of water resources across the region and to ultimately advance human well-being, security and regional resilience to water scarcity in the neighboring countries. These objectives can be met through addressing complex nature of water issues and the development of systemic NEXUS with regard to direct and indirect bonds between / among water, energy, food, health and environmental security.

Since the launch of the IAU HESD Cluster, the University of Tehran has established a steering committee with experts from various water disciplines (agriculture, engineering, sanitation, ecosystem, remote sensing). This committee is complemented with the membership of satellite universities from across the world, namely, **Universities of Granada and Barcelona**, in Spain, **Antonio Narino University**, in Columbia, **Bahir Dar university**, in Ethiopia and potential membership of **Queensland university**, in Australia.

The steering committee has started the drafting of an action plan towards achieving the objectives of SDG 6. The plan includes initiatives relating to Education; Research; Promotion; Monitoring; Training and Technology.

Securing minimum requirements in providing basic education for all has been set as a target, elaborated in objectives such as, revision of education curriculum (at different levels), upgrading educational methods and e-Learning.

In research, emphasis is on defining tangible indicators, identifying existing technical and social gaps and barriers to reach SDG 6 targets.

Promoting higher education roles in decision-making of all stakeholders related to SDG 6, has also been defined as the principle approach.

And finally technological approaches include Patent protection, Promotion of startups and innovations, Commercialization of research products, Branding and Technology management networks.

We are at the beginning of a long, still crucial road towards achieving the SDGs defined in Agenda 2030. These goals are set as the follow-ups to the UN Millennium Development Goals (MDGs). The MDGs were a valuable momentum, but were not meant to focus at gaps of goals and targets at local level. Addressing issues like equity and water quality, which are more specifically defined in SDGs and particularly in SDG 6, are a step forward.

## 07 Assam Don Bosco University: towards the realization of SDG 7 – Affordable and Clean Energy



by **Bikramjit Goswami**, Senior Assistant Professor & **Jesif Ahmed**, Senior Assistant Professor, Dept. of Electrical and Electronics Engineering, Assam Don Bosco University, India



Established in 2008, Assam Don Bosco University (ADB U), Guwahati, is the first Indian University of the Don Bosco Society, present across 136 countries serving 9 million students. ADBU is committed to a Sustainability Programme, which is the university's roadmap for building and operating a vibrant campus community. As global cluster lead in SDG 7, ADBU



is engaged in dialogue with **Strathmore University, Kenya** and **Qatar University** for collaboration on affordable and clean energy.

ADBU is committed to excellence and diversity in research that enhances the quality of life. It has installed 320 KW grid-connected solar photovoltaic power systems, using its free rooftop spaces. Water reservoirs have been created utilising the natural streams coursing through the campus; the installation of a facility for generating micro hydroelectric power up to 15 KW is under way.

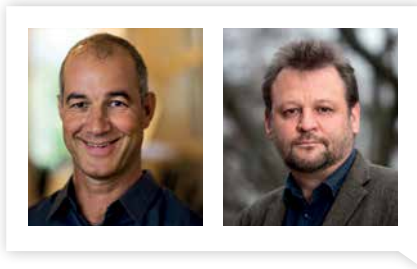
The University is undertaking research in generation of affordable energy from new and renewable sources in a cost effective manner targeted for consumption in rural areas of the country. Some of these research areas are:



- The “Behaviour of solar cell in different shading conditions and calculation of maximum power point at partial shading condition” analyses the behaviour of Solar Modules under different lighting condition. The characteristic behaviour of Solar Modules has also been studied for different shading pattern and irradiance conditions.
  - The “Design of DC Microgrid Based on Photovoltaic Power Supply System”, investigated the possibilities of using DC Microgrids to solve the energy problem in off-grid remote areas of the country.
  - The “Designing of a Wind Power System in Azara area of Guwahati, Assam” proposes an affordable wind turbine model, which can produce an output of 12W-16W depending on the wind speed. The research stressed on the various types of blade design suitable for operating in low wind velocities in Azara area, located at 19.08130°N and 72.88860°E. This model is expected to be useful in places of low speed wind and for operating low powered devices.
  - In the “Enhancement of Fault Ride-Through Capability during Symmetrical Fault of the DFIG Wind Turbine using Alternative Resistive-type SFCL”, a resistive-type superconducting fault current limiter (RTSFCL) with doubly-fed induction generator (DFIG) based wind turbine has been proposed to suppress
- the steady-state and transient fault current at stator side to improve the fault ride through (FRT) capability of the power system. During simulation of a 0.9 MW/0.69 kV DFIG-based wind turbine with the proposed RT-SFCL, it was observed that the voltage sag at the generator terminal and consumption of reactive power from the grid has been reduced during symmetrical fault.
  - The “Optimal operation of Distributed Network, embedded to wind-Battery storage system for revenue enhancement”, analyses the operation of Particle Swarm Optimization technique, adopted with an objective to find the optimal conditions of a distributed network, providing an optimal strategy to increase the revenue from the power trading to the network.
  - The “Design of Horizontal Axis Micro Wind Turbine for Low Wind Speed Areas”, analyses the design of a horizontal axis small-sized wind turbine or horizontal axis micro wind turbine for low wind speed areas to produce electricity for limited power needs for domestic consumption requiring a very low cost for installation and maintenance.
  - Research in “Hydro Generation Scheduling in North Eastern Region (NER) of India using Artificial Neural Networks” investigated the application of artificial neural network based methods developed for generation scheduling of two major hydro generating stations (Khandong and Ranganadi) of North Eastern Region of India; based on total demand, reservoir level and microwave remote sensed Polarization Index (PI) values.
  - In the research titled “Optimization of DC Microgrid for Renewable Energy Integration”, a dc Microgrid for optimization of renewable power integration has been proposed, which analyses the possibility to develop in optimizing the utilization of renewable energy sources within Microgrids. Renewable power from wind and solar generation forecast were aggregated and it has been proposed to support the quantification of the operational reserve and maintain the equilibrium of the Microgrid’s real-time supply and demand.
  - In the research work of “Artificial neural network based generation scheduling”, referring to the national grid of Belgium as a case study, a supervised multilayer perceptron based training has been developed using artificial neural network (ANN) which produces satisfactory results in scheduling of non-renewable energy sources, with prior information on the availability of renewable energy sources.

The University intends to lead the way in substantially increasing the share of renewable energy in the requirement of total energy mix and looks forward to academic and research collaboration to facilitate access to clean energy technology and enhance energy efficiency.

## 08 University of Gothenburg's Strategy for SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



by **Eddi Omrcen**, Sustainability Officer and **Gunnar Köhlin**, Director Environment for Development (EFD), University of Gothenburg, Sweden



### Strategic goal and ambition for the SDG 8 team

The strategic goal of the SDG 8 team is to engage and support a global community of researchers and practitioners to promote inclusive and sustainable economic growth, employment and decent work for all. This is done by transdisciplinary, applied action research and policy interaction that focuses on solutions to growth and work related challenges through collaboration among researchers and practitioners in local and global contexts. The ambition is to mobilize academic work and policy interaction in order to create sustainable economic growth with good conditions for employees.

### Implementation strategy

The implementation strategy for the SDG 8 team is divided into three phases and focuses on:

- i. Synthesising research in support of the implementation of the SDG 8 targets;
- ii. Critically scrutinise the goal, targets and indicators of the SDG 8 in order to reveal inherent biases, contradictions and links to other SDGs;

- iii. Engaging researchers and policy makers in dialogue and following-up on selected indicators for inclusion in Voluntary National Reviews to the UN HLPF<sup>1</sup>.

### (i) Synthesising research

The starting point for our work is to identify how the SDG 8 team can apply scholarly work to the SDG 8 discourse. A natural first step is therefore to conduct systematic literature reviews on the subject matter of the SDG 8. This particular SDG is wide and spans a multitude of issues related to economic growth, and resource efficiency but also working conditions, youth employment and even tourism. The twelve SDG 8 targets will be bundled and prioritised to facilitate analysis by designated writing teams. The University of Gothenburg library will support the systematic reviews and the syntheses will be commissioned in the team.

### (ii) Critical analysis and links to other SDGs

IAU has the ambition to make the HESD holistic. We will therefore insist that the writing teams include a critical analysis of links (both synergies and contradictions) between SDG 8 and other SDGs. This is where we expect that the magic of academic interaction will come to play with drafts of the papers being discussed in seminars both within each university and between universities in the team to ensure that we get a rich dialogue with multiple perspectives reflected.

### (iii) Policy dialogues and interaction with the UN system

The finalised discussion papers will then be used for policy dialogues by each of the satellite universities. Particular focus will be given to discussions regarding the use and meaning of the proposed indicators. Are they relevant, credible and actually used? This will enable each Cluster Satellite university to contribute to their own government's *Voluntary National Reviews* at the UN *High Level Political Forum* (HLPF) in New York in July 2019. It will also enable IAU to organise side-events at the HLPF and shed light on the SDG 8 implementation strategy through university work..

### Team modalities

The Environment for Development Initiative (EFD), that is coordinated from the University of Gothenburg and that consists of a global network of academic institutions committed to research – policy interaction for improved sustainability and reduced poverty has developed modalities for collaborative programmes. These modalities include close interaction within the team with regular virtual meetings and recurrent IRL meetings. In addition, there will be the mentioned seminars

1. <https://sustainabledevelopment.un.org/vnrs/>

to scrutinise each SDG 8 target. Together with the systematic reviews this will lead to a series of discussion papers. These papers will then be pulled together into an edited SDG 8 book. The team would also love to see an international SDG 8 conference organised at the University of Gothenburg.

### About the University of Gothenburg

The University of Gothenburg is one of northern Europe's major universities, with more than 38,000 students and over 6,000 staff. The University offers training in the Creative Arts, Social Sciences, Natural Sciences, Humanities, Education, Teacher Training, IT and Business Economics, and also houses the Sahlgrenska Academy, with training in Medicine, Care Sciences and Odontology. The University's unique breadth in education and research provides excellent opportunities for creative collaboration between the sciences, as well as with private enterprise and public institutions. The University of Gothenburg is environmentally certified and works actively for sustainable development.

### Research centres, at the University of Gothenburg, connected to the SDG 8 in particular:

- Environment for Development Initiative (Efd) ([www.efdinitiative.org/](http://www.efdinitiative.org/))
- Work and Employment Research Centre (WE) (<https://we.gu.se/>)
- Gothenburg Centre of Globalization and Development (GCGD) (<https://gcgd.gu.se/>)
- Centre on Global Migration (CGM) (<https://cgm.gu.se/>)
- Centre for Tourism (CFT) (<https://cft.handels.gu.se/>)
- Centre for Global Human Resource Management (CGHRM) (<https://cghrm.gu.se/>)
- Centre for Business in Society (CBiS) (<https://cbis.handels.gu.se/>)

### Eight "Efd-universities" have joined as satellite universities in the SDG 8 team (more universities might join):

- Makerere University, Uganda
- Addis Ababa University, Ethiopia
- University of Nigeria, Nsukka, Nigeria
- University of Concepción, Chile
- Universidad de los Andes, Bogota, Colombia
- University of Economics Ho Chi Minh City, Vietnam
- University of Dar Es Salaam, Tanzania
- University of Nairobi, Kenya

## And action!

These are exciting days. We are now organising this work program for the SDG 8 team both at University of Gothenburg as well as with the satellite universities, while also relating our work to the HESD cluster as a whole. We hope that the strategy outlined here will contribute to IAUs joint strategy for HESD Cluster. But we need to hit the ground running since SDG 8 is one of the goals that will be revised and discussed at the High Level Political Forum (HLPF) in New York in July 2019. We hope to be there to contribute in its successful implementation.

[www.gu.se](http://www.gu.se)

[www.efdinitiative.org](http://www.efdinitiative.org)

## 09 BAU Goal 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



by **Ibtihal El-Bastawissi**, Dean,  
Faculty of Architecture, Design and Built  
Environment, Beirut Arab University



جامعة بيروت العربية  
BEIRUT ARAB UNIVERSITY

Beirut Arab University is glad to join the global cluster on Higher Education and research for sustainable development (HSED) representing SDG 9 on Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Through this global attempt that equally addresses the 17 sustainable development goals cluster, BAU aims mainly to promote inclusive and sustainable industrialization, enhance scientific research, and support economic development and human well-being, with a focus on affordable and equitable access for all. **The University is working on inviting 'satellite' universities on board to advance a particular SDG, all the while ensuring synergies among all goals.**

The University has developed its strategy 2007-2012 and carried on for the years 2013-2020 focusing on research excellence, innovation, and international relations. Grounding on these strategic areas BAU joined the Global Compact Network Lebanon

GCNL that was launched in 2015 and one further step with joining IAU- Cluster in 2019.

Several projects and initiatives at BAU, worth mentioning, had paved the way to represent SDG 9

- the 1<sup>st</sup> winning project produced and executed at the Vocational training Center for Carpentry with the support of the Digital Fabrication lab at Beirut Arab University, BAU and the Municipality of Beirut Sustainable Urban Infrastructure project,
- Inclusive and Sustainable Cities Municipal Good Practices in Lebanon, “Our City Our Way” which allowed 30 trained youths to directly lead the design of a specific landscape project aligned with the model of a child-friendly city,
- Newly developed academic-industrial projects,
- “Carpolo” a platform that promotes carpooling between community members using a mobile app and analytic tools,
- “Innovative Green Competition” The Competition encourages university students regionally (Middle East & North Africa) to participate in submitting their innovative ideas and businesses through a Business Plan Template,
- BAU 1<sup>st</sup> International Conference on Research and Innovation,
- BAU 1<sup>st</sup> International Conference on Urban Health and Wellbeing UHWB2018,
- Digital Fabrication Laboratory, DIGITIZE Global summer school.

Beirut Arab University through its four campuses, 10 faculties, 164 Programs and 8 Centers of Excellence is aiming to enhance the sustainable development principles and actions through: continuous Mapping key that contributions to SDG 9, keep on leading and steering activities of SDG 9, identify priorities, opportunities and gaps to cover SDG 9 targets, build up capacity for priority areas, integrate implement and embed through Monitoring , Evaluation and Communication.

## 10 Advancing Research on Reducing Inequality: the University of Tsukuba Initiative



by **Muneo Kaigo**, Chair, Institute for Comparative Research in Human and Social Sciences & **Hidehiro Yamamoto**, Associate Professor, University of Tsukuba, Japan



The University of Tsukuba was originally established as “a national university with a new vision,” not being restricted by the usual conventions of other Japanese universities and the intent of also being an “Open University.” The university’s philosophy is based on achieving higher interdisciplinary integration and internationalization in all fields, ranging from the arts and literature to the sciences. Based on these philosophies, our university is heavily engaged with studying global issues from various aspects, as the university as a whole is already very much committed to the Sustainable Development Goals.

Our annual international research conference - the Tsukuba Global Science Week - theme for last year was “Driving Sustainability” and is an illustration of our commitment. The 2018 Tsukuba Conference welcomes researchers from all over the world come to Tsukuba, and together, we discussed many topics in relation to the SDGs. This conference adopted the “Tsukuba Declaration” through which participants will continue to contribute to resolving global issues. From 2019, the Tsukuba Global Science Week will evolve into the “Tsukuba Conference,” to be held in October. This aims to be an international forum with participants from the future generation of leaders of industry, government and academia to gather in Tsukuba, and cooperated in tackling global problems, including the SDGs.

The University of Tsukuba has created multiple educational programs encompassing sustainability science and technology. SDGs are being lectured in the Bachelor’s Program in Global Issues that aims to cultivate human resources capable of proposing solutions to global problems. Our university is also working with the local community in giving courses outside of the university in regards to SDGs. Volunteers from the Faculty of Humanities and Social Sciences are teaching these courses, and are open to all members of society. One course is already taking place this year, and will award community members upon completion a “SDG Meister” certificate in 2019.

The Faculty of Humanities and Social Sciences of Tsukuba has also recently initiated a Japan-Central Eurasia SDGs Project with the cooperation of the Nippon Foundation and Japan Central Asia Friendship Association (JACAFA) aimed at developing human resources that can help contribute to achieving the SDGs in Central Eurasia.

As the University of Tsukuba has already established a sustainability science and technology educational program,



we are now trying to work independently of our legacy by developing a new chapter to the IAU HESD Cluster by leading *SDG 10, reducing inequality within and among countries.*

In this project, the *Institute for Comparative Research in Human and Social Sciences (ICR)* plays a central role. A major objective of ICR is to explore ways for people to co-exist and cooperate while retaining their individual identities and developing transnational comparative research methods based on thinking beyond state-centred frameworks. With this perspective in mind, ICR will continue working to alleviate problems related to inequality.

In forming an international coalition for this project, we have set up communication channels with the **University of Maribor**, Slovenia, as our partner in Europe, and **University of Carthage**, Tunisia, as our partner in Africa. As inequality is severe in Asia, we have requested help from faculty members of the **City University of Hong Kong** in assisting us in analyzing China and may require one more partner in Asia to gain a proper scope of the continent. All other regions are a work in progress at the moment but will be finalized soon.

In this project, we will initially focus on inequalities in Asia, especially China in comparison with other regions. Many parts of Asia have achieved high economic growth for sustained periods and alleviated poverty. However, this impressive economic performance has been accompanied by rising inequalities. According to the IMF report [1], the income inequality level is larger in China and India than any other regions in the world and expanded much between 1990 and 2013.

We will try to put in scope the actual situations of inequality in various aspects. We will review the current situation and explore what causes inequality. Many Asian countries have a history of developmentalism. Although this brought economic development, the concentration of economic profit and political power has harmed democratic rights. The globalization of our economy has caused changes of industrial and financial structures, leading to further inequalities.

The University of Tsukuba is situated in Asia, so we will attempt an in-depth approach in searching possible actions that can be taken in Asia, as the continent has severe inequalities that need the attention of the global society.

In addition to the problem of inequality, we are also interested in being the leading IAU institution for SDGs in Japan as well. We will begin communicating with Japanese universities to investigate if they have any interest in joining Tsukuba to form a Japan group for SDGs.

[1] IMF, 2016, Regional Economic Outlook: Asia and Pacific: p. 105.

## 11 University of Siam: Leading progress toward SDG 11



by **Pornchai Mongkhonvanit**, *President, Siam University, Thailand and Vice President, International Association of Universities* and **Kanjana Mahattanatawee**, *Dean, faculty of Science, Siam University, Thailand and President, the American Chemical Society Thailand Chemical Sciences Chapter*



Siam University, the only University located in Phasicharoen District, West of Bangkok, Thailand. Since the 2011 big flooding in Bangkok, Siam University realized that communities and the University have to work together toward better living like brain and body in order to struggle through this severe natural disaster. Many big cities are now facing challenges in managing rapid urbanization and addressing the limitation of the urban setting toward healthy living spaces. The project entitled “Healthy District” has been created and engages our communities with the concept “Urbanization is not the limitation to create community empowered healthy spaces”.

The initial stage of the project was a challenging task to communicate and engage with the communities, how to change



their habits and attitudes, and how to build the trust toward collaboration. The Phasicharoen District was formerly considered as an outskirt but, recently, with the sky train, metro, and mega infrastructure projects, this has changed. People can easily and quickly travel to various places in central business district (CBD) of Bangkok. This makes us worry that the senses of bonding of communities might be forgotten due to this disruptive change in transportation time. Purpose now is to maintain the communities and make the communities and the university work to foster better living conditions.



'Healthy space' is a concept aimed at managing space constraints to facilitate the health of people in the communities. We attempt to change the more dangerous and risky areas in the city to become healthy spaces for the communities by ensuring the health of the members of the community in the area through a participation process, network collaboration, and the development of a process of learning from an academic institution and by using an actual community setting as an urban laboratory. The area becomes a space that is conducive to activities that promote good health behavior of the people who live in that particular area in all dimensions: physically, mentally, intellectually, and socially. The aim is to help design the physical structures to make people live healthy and happy lives. We will be able to transform the dangerous area into a safe one to enhance the quality of life. We can develop the Phasicharoen area into a healthy space model, which is scalable and implementable in other districts in Bangkok. In addition to good health promotion, economics and education are promoted as the platform to this sustainable change. The outcomes of the achievement of SDG 11 is also related to principles and issues highlighted in SDG goal 1, 3, 4, 8, 10, 12 and 17. Stakeholders need to give more emphasis on community participation and promote a sense of local ownership by allowing the members of the local community to define the problems, needs, and solutions while working together continuously for the community sustainability.

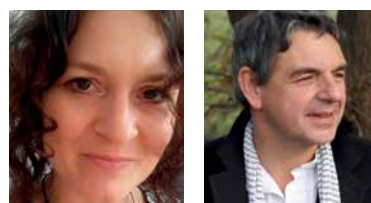
Siam University is the lead institution for SDG 11 of the IAU thematic cluster on HESD because we would like to share our experience to resolve the problems of the big city in various parts of the world having Universities as a spearhead

and leading organization. This experience teaches us that the best learning of the University is that the University and the community must work together. University is like a community's laboratory and community itself is like a test-base for University knowledge and ideas. We learn from solving community problems and feedback from community to University teaching and learning process.

We are in the IAU cluster because we believe in this learning system. We will have the opportunity to exchange the experiences with other Universities around the world. Therefore, 5 Universities are invited as satellites in the SDG 11 Cluster Team: 1) **J.F. Oberlin University, Tokyo**, 2) **Durban University of Technology**, South Africa 3) **University of Surabaya**, Surabaya Indonesia, 4) **American International University-Bangladesh (AIUB)** and 5) a University in Europe (still in the selection process). We joined the IAU global HESD cluster and will have the opportunity to exchange and learn from each other. This will enhance learning process of Siam University in giving services to Phasicharoen District, Bangkok and the Kingdom of Thailand. Since Siam University is the only University in Phasicharoen District, it is not something we just like to do but we deem it as our commitment and responsibility to the society.

The University is probably the best leading organization among stakeholders for changing the living condition of the people in the community because the University as a non-profit learning institution is likely to gain trust with the communities. With this, it will be easier for other stakeholders to come in and join hand together for the sustainable change of the communities. The University should not only work in the physical boundary of the campus but should be considered as the test-base to resolve the problems of the community whereas the community should be regarded as the social laboratory of the University ideas, initiative and knowledge.

## 12 The University of Vechta (Germany) and SDG 12: Moving from Individual Actions to Structural Engagement



by **Margit Stein**, professor of education and **Detlev Lindau-Bank**, Lecturer, University of Vechta, Germany



Universität Vechta  
University of Vechta

The University of Vechta works within the IAU HESD Cluster on Sustainable Development Goal (SDG) 12 focused on Responsible/Sustainable Consumption and Production (SCP) but led by the **University of Regina** and **Luther College**, Canada, one of its federated partners. We anchor the principles of sustainability in all higher education areas - teaching, research and campus life.

The University of Vechta engages especially with SDG 12 as there are a lot of student activities within the domain of service learning concerning SCP. We can thus provide many examples of best practice addressing this SDG.

In the area of food, students run a café where they serve fair trade and ecologically grown coffee and tea as well as snacks they produce. The furniture in the café is second hand and the services are run by students on a voluntary basis. Within the student café there is also a refrigerator where members of the university can place food items that were bought and are no longer needed as well as fresh fruit and vegetables from their balconies or gardens. The fridge as well as the café are highly frequented as the things served are not only fresh, fair, and ecological grown but also much cheaper than conventional food or the conventionally run cafés around the university – including the canteen.

Together with students, members of the training staff also developed two small gardens behind the university as well as gardens nearby, and harvested and cooked together (as well as filling the fridge!). Within this urban gardening project there has been a special intercultural focus led by culturally diverse groups of students from very different partner universities, who share a range of interesting and informative experiences from around the world.

Complementing the food sharing, the university also has a huge wardrobe where, for instance, books and clothes can be placed for swapping. These efforts of our university, especially the aspects of fair and sustainable production and consumption, are reported on and monitored.

More generally, in 2018 we started an initiative for evidence-based monitoring of our activities for sustainable development. We use a university-specific sustainability code which consists of 20 criteria. It is based on the *German Sustainability Code* as a transparent standard that many companies of all kinds and also some public institutions use to report on their challenges and achievements for sustainable development. The *Sustainable Development Council* (RNE) approved the code in 2011 for use as a voluntary standard.

This university-specific Sustainability Code was developed by a research-network of several universities. The network has supplemented the code in specific sectors and developed tailor-made guidelines.

The criteria are not completely independent of each other. They are bundled into four overarching categories: Strategy, Governance, Environment and Society. It is crucial for the evaluation to demonstrate the extent to which the university manages to visibly fulfill the criteria in the following fields of action: a) Research, b) Teaching, c) Operations, d) Knowledge and Skills Transfer, and e) Governance. The Sustainability Code is more than a reporting tool as it stimulates transformative processes at the university. In terms of sustainable production and consumption, the first report is focusing on the procurement and consumption of materials. To do so, however, it is necessary to involve students, staff and researchers to work directly with the criteria in the Sustainability Code.

**Picture 1:**



The **sustainable rondel** at University of Vechta stands under the sign „renewable resources“. Renewable resources in this context are agricultural and forestry-produced products that are not used as food or feed. Their use is diverse, as a substance for the production of heat, electricity or fuels. Primary content targets consumers (such as environmentally friendly products that are easy to dispose of), industry (such as alternatives to fossil energy sources), agriculture (such as new, value-added opportunities in the non-food sector) and the physical environment (for example, carbon-neutral energy production).

**Picture 2:**

University of Vechta started an e-Bike-Initiative. Every staff member could lend an e-Bike for business trips.

## 13 Universities charting new development pathways to address climate change



by **Stacy Richards-Kennedy**,  
Director, Office of Development,  
University of the West Indies, Jamaica



The Sustainable Development Goals (SDGs) represent an ambitious agenda to address both economic prosperity and environmental sustainability by 2030. Not only will the SDGs require the focused efforts of developed and developing countries alike, strong partnerships across public, private and civil society organizations will also be needed. Universities, as hubs of creative, intellectual and innovative activity, undoubtedly have a pivotal role to play. Research and knowledge are at the core of the 2030 development agenda and the urgency and complexity of the SDGs call upon universities to lead boldly. To address pressing development challenges, the specialist expertise of university faculty needs to be harnessed, relevant and context-appropriate solutions designed in collaboration with key stakeholders, resources prioritized

by decision makers and development partners and integrated, multi-sectoral programmes that advance the SDGs executed, monitored and evaluated at the national and regional levels.

Cognizant of the integral role the regional UWI plays in advancing the development of the Caribbean, the university's current *UWI Triple A strategic plan 2017-2022* provides a framework for a renewed focus on revitalizing Caribbean development through enhanced **Access** to higher education, stronger **Alignment** between academia, industry and development partners and increased **Agility**. The UWI is honoured by the IAU's invitation to lead the work on SDG 13, as this is a recognition of the university's longstanding contribution to teaching, research, advisory services and advocacy on sustainable development and climate change issues through its UWI faculties and internationally recognized research centres. These include the Institute for Sustainable Development, which hosts the Caribbean Sustainable Development Solutions Network, the Centre for Disaster Risk Reduction, the Centre for Resource Management and Environmental Studies, the Seismic Research Centre and existing thematic research groups such as the UWI Climate Studies Group Mona and regional UWI Climate Change Research Cluster.

Established in 2016, the UWI Office of Development focuses on strengthening the interface between the university and multilateral development agencies and supporting the university's participation in national and regional development processes as well as its contribution to advancing the global 2030 development agenda. The UWI Office of Development is responsible for coordinating the SDG 13 cluster as well as other university partnerships to advance the SDGs. In August 2018, The UWI was proud to host the launch of the Caribbean Climate Smart Accelerator in collaboration with the IDB, World Bank, Virgin Unite, and other global partners committed to creating the world's first "climate-smart" zone. In 2017, The UWI partnered with the United Nations system in the Caribbean in planning and hosting the Caribbean Action 2030 Regional Conference on the SDGs at the UWI Mona Campus, Jamaica. An important component of this regional conference was the regional Youth Advocacy Campaign, which comprised a webinar, series of short films entitled "Youth Action on the SDGs", a regional photography competition for university students and a Youth Forum, implemented in collaboration with the United Nations Development Programme (UNDP) Jamaica. The UWI Open Campus also designed a customized online Course on Transformational Leadership to Achieve the SDGs in collaboration with UNDP, PEMANDU Associates of Malaysia and the Caribbean Development Bank (CDB). This course, which is currently being offered online, enables participants from all over the world to build capacity in applying transformational leadership principles and the Big Fast Results (BFR) Methodology to overcome implementation challenges when executing inter-sectoral development programmes aimed at achieving the SDGs. The SUNY-UWI Centre for Leadership and Sustainable Development in New York also helps to expand the



reach of UWI and SUNY institutions and their contribution to advancing the global 2030 development agenda, in particular by engaging diverse faculty, students, policy makers and advocacy groups both in the Caribbean and in diasporic communities in North America.

The UWI's leadership of the SDG 13 cluster thus complements these ongoing initiatives and allows for a coordinated engagement of a global team of universities that are committed to climate action across all geographic regions. Members of the SDG 13 cluster include the **University of the South Pacific, University of Witwatersrand, University of Bristol, University of Bergen**, a SUNY institution and others that have expressed an interest in joining. The SDG 13 cluster will focus on strengthening information and data sharing, mobilizing funding for collaboration on joint projects across geographic regions for global impact as well as enhancing coordination and development effectiveness. An important tool will be a knowledge management platform that brings together the research, taught programmes, conferences, knowledge products etc. of all SDG 13 cluster members in an online repository for ease of access, communication and coordination.

To maximize the contribution of universities to the 2030 development agenda, there will no doubt need to be greater articulation between teaching, research, innovative solutions, strategic partnerships and activism to support localization of the SDGs and the execution of national and regional strategies to achieve the SDGs. The multi-dimensional nature and interconnectedness of the SDGs also cannot be overlooked. Our SDG 13 (Climate Action) cluster includes participation by the University of Bergen, the lead university for **SDG 14**

(Life Below Water), given the synergies between the work programmes of these two groups of universities. The IAU HESD Global Cluster therefore presents an important opportunity for stimulating the cross fertilization of ideas to provide research-informed solutions for interconnected development challenges and to leverage global partnerships for a more balanced focus on people, planet and prosperity. This is a signal moment for universities across the globe to come together and help chart alternative development pathways for a more sustainable future.

## 14 Ocean sustainability through higher education and research partnerships



by **Lise Øvreås**, Professor, Department of Biological Sciences & Academic Director Ocean Sustainability Bergen, University of Bergen (UiB), Norway



In January 2018, the University of Bergen (UiB) initiated Ocean Sustainability Bergen (OSB) to promote the university's strategic work in ocean research with a special focus on sustainability and the UN's 2030 Agenda.

Later in 2018, International Association of Universities (IAU) initiated the IAU Global Cluster on Higher Education for sustainable development (HESD) to foster concrete actions for all of the SDGs and to enhance university partnerships. UiB was selected to lead the work of the Association on SDG 14 *Life Below Water*. UiB is honoured being selected as Lead Institution and we will work together with five Satellite Institutions to enhance the work on SDG 14. Parallel to this work we will also collaborate with other lead intuitions.

Universities have a longstanding tradition and play an important role in fostering sustainable development. To achieve a sustainable society we need to change due to policy and diplomacy and change requires knowledge. OSB is a virtual centre for ocean science and diplomacy, working with partner institutions worldwide. The aim is to engage with the Sustainable Development Goals (SDGs) and the centre is part of the university's strategic initiative, SDG Bergen, which presents scientific advice to governments and international bodies to aid them in decision-making processes.

Currently, three focus areas are of interest for OSB:

1. The Laws of the Ocean,
2. Food from the Ocean, and
3. Sustainable Technology.

## OSB achievement of initiative

UiB directed a delegation to the UN Ocean Conference in New York, in June 2017. During the conference, UiB entered into several voluntary commitments with partner universities in the global south. One of these commitments was to focus on education in sustainable fisheries and another was focusing on the establishment of a marine chair in the South Pacific to study climate change in one of the regions most impacted by rising sea levels.

SDG Bergen and OSB have in addition attained SDG 14 Hub status for UiB with UNAI (United Nations Academic Impact). Achieving this special status to lead on SDG 14 – Life Below Water – underlines UiB's longstanding position in ocean science, both nationally and internationally.

## About the University of Bergen

UiB is an internationally recognised research university. Academic diversity, autonomy and high quality are fundamental for our activity. UiB is Norway's leading marine university, with

research and education of a high international standard and several world leading marine research environments, including Centre of Excellence (SFF) and Centre for Research-based innovation (SFI). UiB is the most cited university in Norway. There are seven faculties at UiB and there is a total of 16,900 students at the university. More than 10 per cent are international students. We employ 3,600 staff. PhD candidates are employees of staff, making the doctoral degree at UiB particularly attractive for rising talent. About one in three graduating PhDs are from outside Norway.

## A commitment to sustainable development

UiB is one of Norway's leading comprehensive research universities. Timely recognising the key significance of the 2030 Agenda, in 2017 UiB launched a university-wide strategic initiative. This was established to engage with the SDGs, spearheaded by the aforementioned participation in the UN Ocean Conference and laying the foundations for a national conference where the university sector in Norway could engage in critical debate on the Global Goals.

Building on the position as Norway's premier SDG-oriented university, UiB has established leadership through a national committee for the 2030 Agenda consisting of leaders from Norway's main research universities and advisers from the Ministry of Foreign Affairs and the Ministry of Education and Research. The committee is formed to strengthen the role of the university sector as a relevant actor in the global debate on the challenges raised by the 2030 Agenda, both nationally and internationally.

As the first Norwegian university to institutionalise the 2030 Agenda, UiB organised the inaugural, high-level SDG Conference Bergen in February 2018, on behalf of the university sector in Norway and in cooperation with Norway's Ministry of Foreign Affairs and Ministry of Education and Research. This is now an annual conference and the second conference was held in February 2019, and the planning for the upcoming conferences in 2020 and 2021 is already initiated.

## Flagship projects on the SDGs

- **SDG Bergen:** <https://www.uib.no/en/sdgbergen>  
SDG Bergen is a University of Bergen strategic initiative to engage with the 2030 Agenda. The initiative also includes science diplomacy and scientific advice to government and international organisations.
- **Ocean Sustainability Bergen:** <https://www.uib.no/en/ocean>  
Ocean Sustainability Bergen is a virtual centre at the University of Bergen (UiB), working with partner institutions worldwide in ocean science and education.



■ **SDG Conference Bergen:** <https://www.uib.no/en/sdgconference>

An annual conference that brings together national and international speakers from academia, government, civil society, industry, and the UN system, to explore the roles of research and education in creating new approaches for shared commitments to a sustainable global future.

■ **Utdanning 2030 (Education 2030)**

The “Utdanning 2030” project is under development for campus-wide implementation and is mapping how to make the university’s educational programmes and courses SDG-relevant and engage students in research and development of novel curriculum, teaching and learning methods.

■ **National Committee for 2030 Agenda in the Higher Education Sector**

UiB has taken the initiative and the leadership of a national committee – engaging the leadership of the largest Norwegian universities, the national students organization, the Ministry of Foreign Affairs and Ministry of Education and Research.

## 15 The University of Costa Rica and SDG 15: Life on Land



by **Mahmood Sasa Marin**, *Escuela de Biología and Instituto Clodomiro Picado, Universidad de Costa Rica*



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The United Nations promotes an international agreement called the Sustainable Development Goals (SDG, see <https://www.un.org/sustainabledevelopment>), a road map to achieve social equity and environmental well-being in human societies that co-exist today on our planet. This ambitious plan includes 17 key areas, including ending poverty, achieving food security, ensuring healthy lives, sustainable water management; access to sustainable energy, combating climate change and protecting marine and terrestrial ecosystems. The signatory countries agreed to identify and implement concrete actions to achieve these goals before the year 2030. And the clock is ticking...

A strategy to accelerate actions toward the SDGs is through the participation of universities (van't Land & Herzog, 2017).

Universities are centers of social vibrancy that are responsible for the technical and intellectual education that contributes to the development of each nation. Also, universities focus on the collective well-being and fulfill an essential role in the generation of knowledge by promoting endogenous scientific and technological research and transferring it to other sectors of society. University communities are diverse and complex and reflect on a small scale the different realities of the countries they serve. Another advantage is that the universities usually have environmental, social-equity and health promotion programs aimed at improving the internal coexistence conditions or even to help the neighboring communities that surround them. All these activities can be framed around the SDGs.

Two years ago, the International Association of Universities took up the challenge of coordinating efforts to accelerate the actions of universities to move forward the SDGs. The University of Costa Rica (UCR), the largest and oldest university in this small Central American country, committed to promoting actions around the *SDG 15: Life on Terrestrial Ecosystems*. This goal aims to protect, restore, and promote sustainable use of terrestrial ecosystems, manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss. The choice is not casual: Costa Rica has been exemplary for its efforts to protect, catalog, and reasonably use its impressive biological diversity, especially in terrestrial environments. In the last four decades, the country has reversed its deforestation rates, among the highest in the world at that time, to implement an environmental protection system based on the conservation of wild areas. As a result, over 27% of its surface area is under some category of protection. During this period, Costa Rica managed to catalog a large part of its biodiversity, which accounts for 5% of the species currently known on the planet (Avalos, 2019).

The University of Costa Rica has been fundamental in these efforts. This institution offers careers in Biology, Agronomy, and Geology. It also trained specialists in different biodiversity groups and housed the UCR Museum of Zoology, the most significant scientific collection of vertebrates, arthropods and other invertebrates in Central America. It also houses the second most important collections of plants and fungi in the country. These assemble represent a valuable scientific, cultural, and historical heritage for the region. UCR also has a network of internal reserves that include botanical gardens, experimental farms and forest reserves areas that protect diverse resources for countrywide and institutional convenience (**Figure 1**). Through its *Environmental Management Program*, the UCR can articulate internal efforts in environmental matters and promote the sustainable use of resources, integrating the environmental component to ensure compliance with environmental regulations and improve environmental quality within the university campus and its surroundings.

As a first step to consolidate SDGs, universities require to identify and coordinate all the efforts that are being made around each of the SDGs. As in other universities, many of

**Figure 1. Manuel Brenes Biological Reserve, one of the reserves managed by UCR in the Caribbean slope of the country.**



the actions that have been carried out concerning the SDG 15 at UCR have been made by different units, without much coordination among them. Thus, we are currently recording those individual efforts to build a common database for the university. To do this, we must identify all recent research projects related to biodiversity and terrestrial ecosystems, as well as those that deal with environmental sustainability and technologies to reduce environmental impacts. Our catalog is also extended to teaching and outreach projects related to these subjects. Once this stage is finished, the information will be deposited in a free access digital repository.

As a second step, we are addressing the creation of the Center for Research in Biodiversity and Tropical Ecology (CIBET), a center specialized in the development of research projects on regional biodiversity. The research deployed in the CIBET would also generate inputs to face the environmental challenges that we face as a country: effects of climate change, depletion of beneficial biodiversity, effects of pollution, and the invasion of exotic species on human and natural environments. In this way, technical advice would be provided to government or private sector authorities on which to base management decisions on our natural heritage.

A third step is the incorporation of the efforts made by UCR to the national agenda. Through an Executive Decree, the Ministry of Environment of the country established an institutional scheme to organize, articulate, plan, implement, finance and monitor the Sustainable Development Goals and the 2030 Agenda in Costa Rica ([HTTP://www.ods.cr/](http://www.ods.cr/)). According to this scheme, the country has a *Committee* formed by representatives of governmental institutions whose mission is to propose, coordinate, and execute actions around SDGs at the country

level. We are proposing a closer collaboration between the UCR and those state initiatives to join efforts to achieve our common goals.

The work around the SDGs should be extended to other universities around the world. We are using our own experience at UCR as one example of the many ways in which universities can contribute to these objectives. We are extending our efforts to the other state universities of the country to expand the catalog of concrete actions around the SDG 15, as well as to encourage and draw the attention of their respective authorities to join this initiative. At the same time, we have identified other member institutions of the IAU in distant regions that we would like to join by carrying out actions under their own experience. We firmly believe that it is through the networking activity among universities that we can position the objectives of sustainable development in the different nations of the planet. In this way, the knowledge and experiences generated and shared among all of us will impact not only the academic realm but also will allow direct applications to the societies we serve.

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- van't Land H., and F. Herzog.** (2017). Higher Education Paving the Way to Sustainable Development: A Global Perspective. International Association of Universities. Paris, 27 pp.

**IF YOUR INSTITUTION IS INTERESTED IN GETTING INVOLVED IN THE WORK OF THE CLUSTER** please contact Stefanie Mallow at the IAU to express your interest specifying in which area you can contribute  
[s.mallow@iau-aiu.net](mailto:s.mallow@iau-aiu.net)

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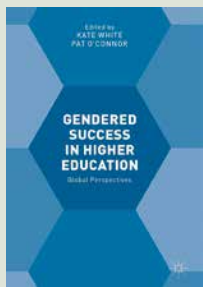
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**Contact:** [t.jensen@iau-aiu.net](mailto:t.jensen@iau-aiu.net)



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### Gendered success in higher education: global perspectives

Kate White, Pat O'Connor, Eds. London: Palgrave Macmillan UK, 2018. 299 p.



This book examines higher education institutions that exemplify gendered success whether in terms of the presence of women in senior positions

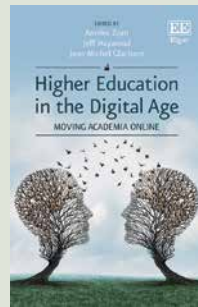
or attempts to change a gendered organisational culture. It reflects a global perspective, drawing on case studies from eleven countries: Australia, Austria, Ireland, India, New Zealand, Portugal, South Africa, Sweden, Turkey, United Arab Emirates, and the United Kingdom. In each country, an organisation has been selected that demonstrate best practice in terms of gendered outcomes or processes. Gendered Success in Higher Education highlights both the importance and the limitations of indicators such as the proportion of women in senior positions. It proposes a new gender agenda, identifies the factors that need to be included in a model of gendered change, and provides important insights into the nature of gendered change globally and how it can be achieved.

### Higher education in the digital age: moving academia online

Annika Zorn, Jeff Haywood, Jean-Michel Glachant. Cheltenham: Edward Elgar, 2018. 219 p.

ISBN 978-1-78897-015-0. Online  
ISBN 978-1-78897-016-7

This book offers a broad perspective on what moving online may offer to academic institutions and their scholarly



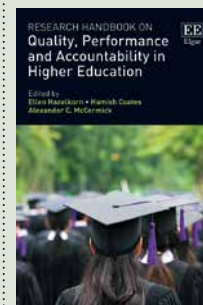
practice. This book offers a comprehensive framework within the European context on how moving online in academia can respond to new challenges in higher education, such as massification and student diversity, and address the core activities of an academic institution – education, research, and research communication. Contributors from European universities share successful case studies of academic online-isation. These include strategic management of developments in educational technology and open learning at a traditional university; engaging students in implementing pedagogical change at a modern and diverse institution through technology; and how digital transformation of a University School improved communication of research output. Online practices, the book argues, allow for integration, and thus innovation in teaching and learning, research, and knowledge exchange within and beyond the university. Moving online not only makes education and research output more transparent, open and accessible to more people, it also has the capacity to transform the role of researchers, teachers and learners and to challenge many assumptions about the role and core practices of universities.

URL: <http://cadmus.eui.eu/handle/1814/59799>

### Research handbook on quality, performance and accountability in higher education

Ellen Hazelkorn, Hamish Coates, Alexander C. McCormick, Eds. Cheltenham, UK,

Northampton, USA: Edward Elgar Publishing, 2018. 590 p.  
ISBN 978-1-785-36974-2



This research handbook is a comprehensive reference for many issues related to the quality of higher education as well as how to assess, measure and assure

performance and accountability. It combines current empirical research in the field with original contributions from international researchers and specialists. The book discusses the shift from academically-based to government-driven quality assessment; the increasing role of both private and transnational higher education and the challenges they pose for quality; and the assumptions of performance-based funding. The growing use of indicators and rankings and their impact is analysed, as well as the development of global learning indicators and outcomes. A diverse series of case studies from around the globe are presented. These include developing systems to assess research and innovation in South Africa and Uganda; accountability models in China, Japan and Korea; national performance assessments in Australia; the move from institution-based quality assurance to the government Teaching Excellence Framework in the UK; the impact of political changes in Central and Eastern European higher education; quality reforms in Chile; and the move to outputs and outcomes in Canada. The book concludes with new developments, such as whether it is possible to develop a performance framework that values institutional diversity, and the challenge of identifying ways to assess higher education's civic and economic contributions.



## Higher education and regional development: Tales from Northern and Central Europe

Romulo Pinheiro, Mitchell Young, Karel Šima, Eds. Basingstoke: Palgrave Macmillan, 2018. 218 p. (Palgrave Studies in Global Higher Education) ISBN 978-3-319-78642-1

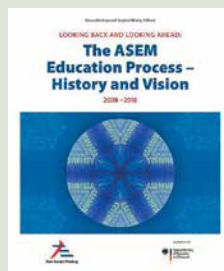


This book analyses the role of universities as critical actors in the socio-economic development of peripheral regions in Norway and the Czech Republic.

Examining the ambiguities of the traditional mission of a university in comparison to contemporary demands, the editors and contributors move past single-case analyses to adopt an integrated conceptual and analytical framework. The authors question whether universities can indeed 'fix' the conditions of any region they operate in, as is a common assumption, by examining peripheral regions, many of which have been devastated by natural or man-made disasters. Simultaneously acknowledging the complexities at the heart of both higher education institutions and regions, this book brings together a set of critical contributions that shed light on how universities can fulfil their role in peripheral regions rather than knowledge-intensive cities and towns.

## Looking Back and Looking Ahead: The ASEM Education Process - History and Vision 2008-2018

Alexandra Angress, Siegbert Wuttig, Eds. Bonn, Germany: Lemmens Mieden GmbH, 2018. 256 p. ISBN 978-3-86856-020-6



Produced for the 2018 tenth anniversary of the Asia Europe Meeting ASEM education process. ASEM has developed into the central

interregional forum for dialogue and cooperation between 51 member countries in Asia and Europe. This publication provides a multifaceted portrait of the ASEM Education Process (AEP) which is highlighted from different perspectives by the contributors, from ASEM members and stakeholders. The first part of the publication elaborates the context, history and development of the ASEM Education Process and presents its achievements and challenges. In the second part, key areas where action is needed for future direction of AEP are identified and a number of activities for further development of AEP are proposed in order to meet future global challenges.

URL: [https://www.lemmens.de/dateien/medien/ebooks/wissenschaft-hochschule-forschung/2018\\_asem\\_looking\\_back\\_and\\_looking\\_ahead.pdf](https://www.lemmens.de/dateien/medien/ebooks/wissenschaft-hochschule-forschung/2018_asem_looking_back_and_looking_ahead.pdf)

## Gender and ICT: meta-analysis and systematic review

Eugene Borokhovski, David Pickup, Lina El Saadi, Jihan Rabah, Rana M. Tamim / Commonwealth of Learning. Burnaby, Canada: COL, 2018. 64 p. ISBN 978-1-894975-93-3

This publication addresses the intersection of gender and information and communication technologies (ICT) as reflected in the primary research literature and in educational practices and policies in 34 Commonwealth countries in Africa, Asia-Pacific and Europe, together with the USA



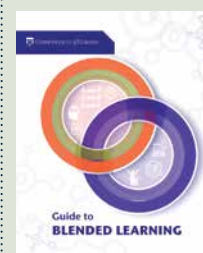
and Scandinavian countries. It summarises outcomes of two large-scale systematic reviews: a meta-analysis of empirical research on gender-based

differences in perception and use of ICT in education; and a systematic review of policy documents that address issues and solutions related to gender and ICT. Wide variation in policies emerged. While several comprehensive policies emerged, often when gender equity was addressed, it was seen as a desirable goal, but without specified outcomes. While the research suggests that the gender ICT gap in perceptions and use of ICT is closing, the gender difference between male and female students' attitudes persists. University graduates demonstrated much smaller gender-based differences in ICT perceptions and use, and more developed countries exhibited more balanced policies with respect to gender and ICT.

URL: [http://oasis.col.org/bitstream/handle/11599/3089/2018\\_Borokhovski-Pickup-ElSaadi-Rabah-Tamim\\_Gender-ICT-Meta-Analysis.pdf?sequence=4&isAllowed=y](http://oasis.col.org/bitstream/handle/11599/3089/2018_Borokhovski-Pickup-ElSaadi-Rabah-Tamim_Gender-ICT-Meta-Analysis.pdf?sequence=4&isAllowed=y)

## Guide to blended learning

Martha Cleveland-Innes, Dan Wilton / Commonwealth of Learning. Burnaby, Canada: COL. 80 p. ISBN 978-1-894975-94-0



The Guide to Blended Learning is an introduction using technology and distance education teaching strategies with traditional,



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face-to-face classroom activities. This Guide has been designed to assist teachers adopt blended learning strategies through a step-by-step approach taking constructivist and design-based approach and reflecting on decisions taken to provide authentic learning experience in their own contexts. It provides a discussion of types of blended learning in reference to the level of education, the needs of the students, and the subject being taught. This discussion and associated activities also review pedagogy, materials, and technology usage.

URL: [http://oasis.col.org/bitstream/handle/11599/3095/2018\\_Cleveland-Innes-Wilton\\_Guide-to-Blended-Learning.pdf?sequence=1&isAllowed=y](http://oasis.col.org/bitstream/handle/11599/3095/2018_Cleveland-Innes-Wilton_Guide-to-Blended-Learning.pdf?sequence=1&isAllowed=y)

### Research universities in Africa

*Nico Cloete, Ian Bunting, Francois Van Schalkwyk. Cape Town: African Minds, 2018. 299 p. ISBN 978-1-928331-87-2*



This book provides an assessment of the role of research universities in Africa in the 21<sup>st</sup> century, and examines the dynamics of the

relationship between higher education and development on the continent. The authors look at the place of research in Africa through the lens of the Higher Education Research and Advocacy Network in Africa (HERANA) project,

which collected extensive empirical data within a selected group of flagship universities across Africa over fifteen years. It provides in depth analysis into the institutional lives of eight research-intensive universities and examines the role of the university in the national context in Botswana, Ghana, Kenya, Mauritius, Mozambique, South Africa, Tanzania and Uganda. The analysis includes trends and changes in performance, knowledge and research production, doctoral and academic staff enrolment. Together, these case studies document the nature of changes taking place in higher education in the region.

URL: <http://www.africanminds.co.za/wp-content/uploads/2018/10/Research-Universities-in-Africa-WEB-25102018-OPT.pdf>

### Higher education pathways: South African undergraduate education and the public good

*Paul Ashwin, Jennifer Case, Eds. - Cape Town: African Minds, 2018. 307 p. (African Higher Education Dynamics, v. 4). ISBN 978-1-928331-90-2*



This book looks at how undergraduate education in South Africa has a transformative impact on people and societies. It is the outcome of a three year

collaborative project between South African and international researchers and examines recent studies of South African

undergraduate students' access to and experiences of higher education, as well as the economic and social contributions made by university graduates. The book highlights a number of tensions in how higher education and its effects are understood. For example, in South Africa, higher education is expected to play a key role in alleviating the inequalities inherited from the apartheid era. Yet research shows that much of the attraction of a degree is the 'graduate premium' it confers on individuals in the job market, which is often related to its role in reproducing existing inequalities in society. The authors conclude that if South African undergraduate education is to play a key role in enhancing the public good, as envisaged in policy, then this will require significant changes to current practices that support access to, student experiences of, and outcomes from undergraduate education.

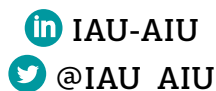
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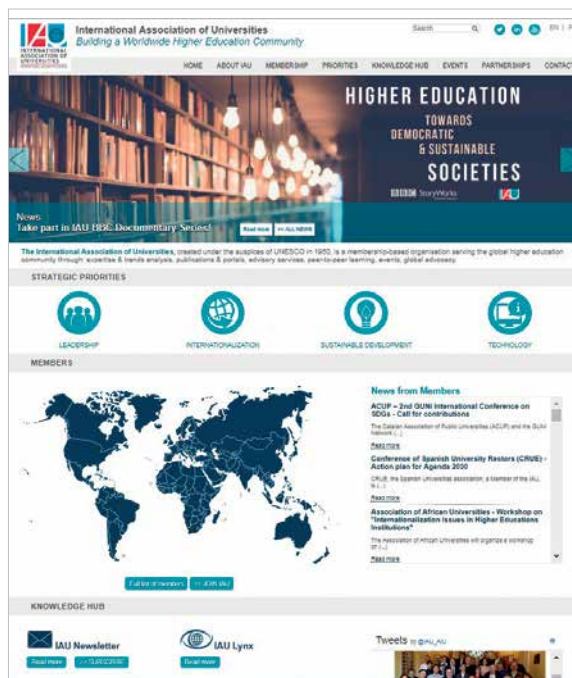
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