The 11th Asian Conference on Sustainability, Energy & the Environment

The 9th Asian Conference on Business & Public Policy

Organised by The International Academic Forum (IAFOR) in association with the IAFOR Research Centre at Osaka University and IAFOR’s Global University Partners
IAFOR has entered into a number of strategic partnerships with universities across the world to form the IAFOR Global Partnership Programme. These academic partnerships support and nurture IAFOR's goals of educational cooperation without borders, connecting the organisation with institutions that have an international and internationalising profile, and a commitment to interdisciplinary research. The IAFOR Global Partnership Programme provides mutual recognition and scope for Global Partner institutions and organisations to showcase their research strengths, as well as engage in the development of projects and programmes with IAFOR.
ACSEE/ACBPP2021 Organising Committee

William Baber
Kyoto University, Japan

Grant Black
Chuo University, Japan

Joseph Haldane
IAFOR

Tom Houghton
Curtin University, Australia

Anshuman Khare
Athabasca University, Canada

James W. McNally
University of Michigan, United States & NACDA Program on Aging

Sela V. Panapasa
University of Michigan, United States

Haruko Satoh
Osaka University, Japan

Philip Sugai
Doshisha University, Japan
Welcome to IAFOR's autumn conference series,

We are very happy to be able to welcome you online to our conference, knowing that you will be joining this event from many corners of the world, and enriching this international academic forum with your own national, cultural, disciplinary, and personal perspectives.

As we look towards the end of the global pandemic, we do so from a position of apprehension; that strange mix of hope and excitement, but also of anxiety and fear. The future, defined by its vast unknown possibilities, has never seemed so uncertain. Our systems and values on a global and local level have been called into question, as our personal and professional lives have been destabilised at best, and destroyed at worst. This collective and prolonged trauma will take years to address, and its many and varied lessons may never be understood.

The pandemic has underlined the importance of all fields of research, but also of interdisciplinary study. While COVID-19 was an opportunity for the “hard” sciences, and the fields of medicine, engineering and technology to showcase solutions, it also underlined their weaknesses, and the central charge that science, medicine and technology was providing solutions to problems it had itself created. It underlined the importance of such fields as politics, philosophy, ethics, and law in the governance of experimentation in science, and in the technologies that not only track and trace our movements for our safety, but also extend, commodify, and justify surveillance culture. It underlined the centrality of the fields of media, as well as that of education in sense-making and public communication.

Lockdowns and shutdowns have been explained and rationalised along the same lines by liberal democracies as they have by authoritarian regimes. Freedoms long protected have been shelved, and the psychological impact on our children and students has been immense.

We are far from being at the end of this globalised and shared pandemic, but we have been reminded of the extent to which we are interdependent, and that we are stronger when we are able to tackle these enormous challenges and questions together. Whether COVID-19 or the changes wrought by climate change, the adage of think globally, but act locally will be central to addressing the challenges facing us collectively as we regroup and rebuild.

Over the course of this event, and to those in the future, we will offer a platform to address these and related issues affecting our world. We thank you for joining the International Academic Forum, and look forward to your active participation in this event.

Dr Joseph Haldane
Chairman & C.E.O, The International Academic Forum (IAFOR)
Guest Professor, Osaka School of International Public Policy (OSIPP), Osaka University, Japan
Visiting Professor, Doshisha University, Japan & The University of Belgrade, Serbia
Member, Expert Network, World Economic Forum
Visit the IAFOR Research Archive, where you can search and access the repository of research generated by IAFOR.

You can search by keyword(s), subject area(s), or specific conference proceeding(s) to access abstracts and full papers from past IAFOR conference proceedings, browse and read them online, or download them to your device.
Monday at a Glance

10:00-10:10 Announcements & Welcome Address
Joseph Haldane, IAFOR, Japan

10:10-10:55 Keynote Presentation
What Is a “Good” Company, and How Can Its Value Be Assessed?
Philip Sugai, Doshisha University, Japan

10:55-11:05 Break

11:05-11:50 Keynote Presentation
Integrating Sustainable Development in Business Curricula: A Tailored Approach
Anshuman Khare, Athabasca University, Canada
Patricia MacNeil, Dalhousie University, Canada

11:50-12:00 Break

12:00-13:15 Live-Stream Presentation Session 1
Public Policy

13:15-13:25 Break

13:25-14:15 Live-Stream Presentation Session 2
Environmental Sustainability & Environmental Management: Land Use & Misuse
November 02 | All times are Japan Standard Time (UTC+9)
Tuesday at a Glance

13:00-13:50  Live-Stream Presentation Session 1  
Cultural Sustainability: Protecting, Preserving and Conserving

13:50-14:00  Break

14:00-14:50  Live-Stream Presentation Session 2  
Business Administration and Business Economics; Marketing; Accounting

14:50-15:00  Break

15:00-16:15  Live-Stream Presentation Session 3  
Environmental Sustainability

16:15-16:25  Conference Closing Address  
Joseph Haldane, IAFOR, Japan
Conference Proceedings

IAFOR Conference Proceedings are Open Access research repositories that act as permanent records of the research generated by IAFOR conferences. The Conference Proceedings are published on the IAFOR Research Archive (papers.iafor.org). All accepted authors who present at the conference may have their full paper published in the online Conference Proceedings.

Full text submission is due by December 03, 2021, through the online system. The proceedings will be published on January 05, 2022.

Conference Catch-up

All live-streamed sessions will be recorded and uploaded to the Conference Catch-up page (video-on-demand) via Vimeo. The catch-up page will be publicly available after the conference.

Pre-Recorded Virtual Presentations

A full list of pre-recorded virtual video presentations will be on the conference website during and after the conference. We encourage you to watch these presentations and provide feedback through the video comments.
Become an IAFOR Member

IAFOR provides an excellent personal and professional environment for academics and scholars of all ages and backgrounds to come together and exchange the latest ideas, and inform each other’s perspectives through their own cultural and disciplinary background and experiences. We are able to do this thanks to the exceptional network of individuals and institutions around the world who support our work and help shape our exceptional events globally. We emphasise the nurturing and supporting of young academics from different backgrounds, providing mutual advice and guidance, and offer more senior academics the chance to forge working relationships outside of their traditional networks.

In a world where division and strife are underlined and played up in national and local contexts, and political posturing frequently seeks to ostracise and demonise, IAFOR is committed to working across cultural and national borders, and to work to bring people together. We believe that mature human interaction and academic and cultural exchange are essential to offering positive versions of the future, where cooperation happens with individuals and institutions who share a commitment to bridge divides, to being good global citizens, and to making the world a better place.

By becoming a member, you will become a stakeholder in the IAFOR mission of facilitating international exchange, encouraging intercultural awareness, and promoting interdisciplinary discussion in the hope and expectation of generating and sharing new knowledge. Join us now in this growing global organisation, and help make a difference today.

To learn more about IAFOR membership, please visit:

www.iafor.org/membership
Introduction

IAFOR's publications provide a constructive environment for the facilitation of dialogue between academics at the intersections of nation, culture and discipline. Since 2009, when the organisation was established, over 20,000 academics have presented their research at IAFOR conferences – a wealth of ideas have been generated and partnerships formed. Our various publications, from Conference Proceedings, to peer-reviewed journals, to our online magazine, provide a permanent record of and a global online platform for this valuable research. All of our publications are Open Access, freely available online and free of publishing fees of any kind. By publishing work with IAFOR, authors enter into an exclusive License Agreement, where they have copyright, but license exclusive rights in their article to IAFOR as the publisher.

Conference Proceedings

As a presenter at an IAFOR conference you are encouraged to submit a final paper to our Conference Proceedings. These online publications are Open Access research repositories, which act as a permanent record of the research generated at IAFOR conferences. All of our Conference Proceedings are freely available to read online. Papers should be uploaded through the submission system before the Final Paper Submission Deadline, which is one month after the end of the conference. Please note that works published in the Conference Proceedings are not peer-reviewed and cannot be considered for publication in IAFOR journals.

IAFOR Journals

IAFOR publishes several editorially independent, Open Access journals across a variety of disciplines. They conform to the highest academic standards of international peer review, and are published in accordance with IAFOR’s commitment to make all of our published materials available online.

How are papers submitted?

Submissions should be original, previously unpublished papers which are not under consideration for publication in any other journal. All articles are submitted through the submission portal on the journal website and must conform to the journal submission guidelines.

How does IAFOR ensure academic integrity?

Once appointed by IAFOR’s Publications Committee, the Journal Editor is free to appoint his or her own editorial team and advisory members, who help to rework and revise papers as appropriate, according to internationally accepted standards. All papers published in the journal have been subjected to the rigorous and accepted processes of academic peer review. Neither editors nor members of the editorial team are remunerated for their work.

Where are the journals indexed?

IAFOR Journals are indexed in Scopus, DOAJ, ERIC, MIAR, TROVE, CiteFactor and EBSCO, SHERPA/ROMEO and Google Scholar. DOIs are assigned to each published issue and article via Crossref. Please note that indexing varies from journal to journal.
What's the reach?

Each of our journal issues is viewed thousands of times a month and the articles are frequently cited by researchers the world over, largely with thanks to our dedicated marketing efforts. Each issue is promoted across our social media platforms and to our tailored email marketing lists. On average, each journal publishes biannually.

Selected IAFOR Journals are available for purchase on Amazon. Search for The International Academic Forum (IAFOR).

What's the cost?

IAFOR Journals are Open Access publications, available online completely free of charge and without delay or embargo. Authors are not required to pay charges of any sort towards the publication of IAFOR Journals and neither editors nor members of the editorial boards are remunerated for their work.

How are IAFOR Journals related to IAFOR Conferences and Conference Proceedings?

IAFOR Journals reflect the interdisciplinary and international nature of our conferences and are organised thematically. A presenter can choose to publish either in Conference Proceedings or submit their manuscript to the corresponding IAFOR Journal for review.

Current IAFOR Journal titles include

IAFOR Journal of Arts & Humanities
IAFOR Journal of Cultural Studies
IAFOR Journal of Education
IAFOR Journal of Literature & Librarianship
IAFOR Journal of Media, Communication & Film
IAFOR Journal of Psychology & the Behavioral Sciences

THINK

THINK, The Academic Platform, is IAFOR’s online magazine, publishing the latest in interdisciplinary research and ideas from some of the world’s foremost academics, many of whom have presented at IAFOR conferences. Content is varied in both subject and form, with everything from full research papers to shorter opinion pieces and interviews. THINK gives academics the opportunity to step outside of the traditional research publishing status quo – to get creative, explore different disciplines and to have their ideas heard, shared and discussed by a diverse, global audience.

For more information on THINK please visit www.think.iafor.org

If you would like more information about any of IAFOR's publications, please contact publications@iafor.org
Our warmest congratulations go to Yuqing Ge and Mekonnen Seid, who have been selected by the conference Organising Committee to receive grants and scholarships to present their research at ACBPP/ACSEE2021.

IAFOR's grants and scholarships programme provides financial support to PhD students and early career academics, with the aim of helping them pursue research excellence and achieve their academic goals through interdisciplinary study and interaction. Awards are based on the appropriateness of the educational opportunity in relation to the applicant’s field of study, financial need, and contributions to their community and to IAFOR’s mission of interdisciplinarity. Scholarships are awarded based on availability of funds from IAFOR and vary with each conference.

Find out more about IAFOR grants and scholarships: [www.iafor.org/financial-support](http://www.iafor.org/financial-support)

Yuqing Ge | IAFOR Scholarship Recipient

**61069 (ACBPP2021)**

*School District Housing (Xue Qu Fang) in Guangzhou and the Underlying Problem of Unequal Distribution of Educational Resources*

Yuqing Ge, Hong Kong Baptist University, Zhuhai Campus, China

Yuqing Ge is a Master student at Hong Kong Baptist University, Zhuhai Campus. She studies Applied Economics as her Bachelor's degree and later the Master's study. She is interested in housing policy, political economy and macroeconomic policy. Besides, her ongoing research project aims to explore the School District Housing (Xue Qu Fang) and understand the relationship between housing price and education resources in China.

Mekonnen Seid | IAFOR Scholarship Recipient

**60778 (ACSEE2021)**

*Integrating SDGs Into Binding Treaties (BITs) to Advance Their Implementation by Foreign Investors: The Case of Hong Kong*

Mekonnen Seid, City University of Honk Kong, Hong Kong

Mr Mekonnen Seid is currently pursuing a PhD at Scool of Law, City University of Honk Kong and his research area is investment law and sustainable development. Mr Seid studied LL.B at Mekelle University and LL.M in Business and Corporate Law at Bahir Dar University. Mr Seid used to teach law at JigJiga University, Ethiopia and was serving as Anti-Corruption officer and Moot Court Centre coordinator of the University.
Monday, November 01

Plenary Session

All times are in Japan Standard Time (UTC+9)

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.
As the world continues to suffer through the COVID-19 pandemic, many have come to realize that not only has the shareholder-first view of business unleashed undeniable negative impacts globally, but that even the more "woke" stakeholder capitalism view is terribly flawed and fails to provide a comprehensive model to help solve these larger issues. This presentation introduces a different approach to assessing and developing solutions to these challenges. It begins by first providing a definition of what "good" actually means for a business irrespective of its size, industry or location, and then proposes a framework that business activities can be objectively assessed against to understand how each individual company is helping to achieve this ideal. To arrive at this framework, 17 of the world's top ESG and sustainability reporting frameworks were analyzed, and the hundreds of impact measurements included within these were synthesized into 80 goals, within 27 larger themes that explain how value can be measured for a company, its shareholders, employees, customers, partners, society and the planet.

Philip Sugai

Dr Sugai is a Professor of Marketing within Doshisha University's Graduate School of Business where he currently teaches Marketing, eMarketing, Marketing Research, and Sustainable & Responsible Marketing. Dr Sugai also served as a Visiting Professor for Stanford University from 2015 - 2017, where he taught Innovation in Japan at the Stanford Overseas campus in Kyoto. Prior to joining the Doshisha University faculty, Dr Sugai taught at the International University of Japan in Niigata where he also served as Dean and Associate Dean of the IUJ Business School for six years.

Dr Sugai is the author of two books, The Value Plan and The Six Immutable Laws of Mobile Business (John Wiley & Sons) and has published case studies with Ivey Business School Publishing on KITKAT Japan, AGL, Hatsune Miku and Walt Disney Internet Group.

He received his Doctorate degree from Waseda University and his M.B.A. in Marketing and Operations Management from New York University's Stern School of Business. He has worked as a marketing executive at American Express, Muze, Inc., and Lightningcast, Inc., and currently serves as a marketing advisor and marketing strategy consultant to companies both in Japan and globally.
Once viewed as a management practice, sustainability is now seen as a concept that can benefit both business and society. There is considerable interest in adding it to business school curricula and/or integrating sustainability-related principles in teachings. Education for Sustainable Development (ESD) is aligned with the Sustainable Development Goals (SDGs) and higher education institutions (HEIs) have a critical role in helping society achieve these goals. However, meaningful implementation has not yet occurred. In practice, most HEIs have put their efforts into advancing sustainable operations such as energy efficiencies, reducing carbon footprints, and recycling policies. Multiple reasons for the slow advance include challenges with fragmented disciplines, a lack of professional development for faculty, and organisational rigidity. We propose that another reason is the debate over how best to do it. The purpose of this study was to identify the optimum model for integrating ESD in an online HEI. We used a systematic literature review to examine ESD approaches. The research uncovered multiple and varied methods that generally reflect one of the following: single mandatory/elective courses, discipline-specific programs, or ESD-integrated across the curriculum. However, these approaches are neither equally effective nor capable of meeting all expectations. Instead, we propose a hybrid solution with multiple components tailored to the respective institution. Key modules included in the approach are broad-based interdisciplinary sustainability curricula, focused electives and/or core courses to build capacity (e.g., strategy), and pedagogical praxes to foster sustainability mindsets. The approach can be adapted by other HEIs with similar interests and requirements.

Anshuman Khare

Anshuman Khare is Professor in Operations Management at Athabasca University, Canada. He joined Athabasca University in January 2000. He is an Alexander von Humboldt Fellow and has completed two post-doctoral terms at Johannes Gutenberg Universität in Mainz, Germany. He is also a former Monbusho Scholar, having completed a postdoctoral assignment at Ryukoku University in Kyoto, Japan. He has published a number of books and research papers on a wide range of topics. His research focuses on environmental regulation impacts on industry, just-in-time manufacturing, supply chain management, sustainability, cities and climate change, online business education, and so on. He is passionate about online business education. Anshuman served as the Editor of the IAFOR Journal of Business and Management, and is Associate Editor of the International Journal of Sustainability in Higher Education published by Emerald and is on the Editorial Board of the International Journal of Applied Management and Technology.

[Dr Patricia MacNeil's biography is available on the following page.]
Patricia MacNeil

Patricia MacNeil is an academic practitioner with extensive public sector experience working within multiple governments in Canada. Throughout her 30-year public sector career she has specialised in public policy, strategic management, and stakeholder relations. An enthusiastic advocate for life-time learning, she returned to university as a mature student to obtain a Doctorate in Business Administration (DBA). Currently she is a part-time lecturer at Dalhousie University in her hometown of Halifax, Nova Scotia, Canada and an Academic Coach at Athabasca University in Edmonton, Alberta, Canada. Her research interests are corporate sustainability, corporate social responsibility, leadership, and ethics.
Monday, November 1

Parallel Sessions

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.
Role of Female Physicians in Women's Health Movement in Japan: The Case of Prescription-Free Emergency Contraception During the COVID-19 Pandemic
Akane Meguro, University of Tsukuba, Japan

Although the COVID-19 outbreak resulted in challenges to global public health, it also posed new challenges in people's private lives due to the stay-at-home policy. Understandably, this measure aims to prevent the spread of COVID-19. However, it influenced intimate relationships in the private sphere, such as unintended pregnancies, sexual violence, and domestic violence in younger generations, which were addressed by international organizations. At the local level, Japan reached a major turning point in the movement to improve access to emergency contraceptives by establishing the Citizen’s Initiative for Pharmaceutical Access to Emergency Contraception (CIPATEC) in June 2020. As a formal civil society organization, it was founded by three female co-chairs, who have been working since 2018. Although the social movement enabled the provision of emergency contraceptives through online medical services, their main focus, sale in pharmacies without prescriptions by doctors, requires discussion in various fields, including the state, medicine, and expertise of pharmacists. Thus, we focus on one female gynecologist, a co-chair member of the CIPATEC, as part of a case study of women’s health movement in Japan, to examine the role of female physicians in bridging needs related to women's health from the perspectives of a woman and a physician.

The Impact of an Increase in Minimum Wage in Vietnam
Lieu Hoang, Meiji University, Japan

There are few studies on the implementation and effects of a minimum wage increase on low-wage workers in Vietnam. A few studies have investigated whether or not the minimum wage has had a negative effect on low-wage employment status; to date, no work has explicitly considered the impact of an increase in the minimum wage on working hours and allowances. The main contribution of this study is to provide empirical evidence of the effects of the minimum wage increases on wages, working hours, and allowances of low-wage workers in the formal sector of Vietnam by using the different-in-different method to analyze the Vietnam Household Living Standard Surveys panel from 2014 to 2016. The estimator results show that most low-wage workers had received higher wages through the increase of the minimum wage, while the monthly wages of low-wage workers in the rural region remain unchanged. In addition, there is a significantly positive effect on working hours across all regions. Furthermore, the author also finds no evidence of the allowance effect on low-wage workers after the intervention. The main policy implication from these findings is that firstly, monitoring should promote in rural areas to ensure that the benefits from the implementation of the minimum wage reach low-wage workers. Secondly, the government should reduce the number of maximum working hours per week. At the same time, it is necessary to adopt hourly minimum wages for both full-time and part-time workers. Finally, the law remains ambiguous about the payment of allowances to workers.

Comparative Analysis Regarding the Recommendation of the OECD Protection of Children Online and Policy Responses With International Organizations
Nagayuki Saito, International Professional University of Technology in Tokyo, Japan

Today, the Internet has become an integral part of our lives, not just for adults, but for adolescents as well. Through the Internet device, they perform actions such as communication with others, learning, playing, information acquisition, purchasing, and registration, and engage in social activities. On the other hand, there are various risks on the Internet such as communication troubles, cyberbullying, browsing illegal/harmful information, encounters with criminals via the Internet, leakage of privacy and personal information, security risks, and so on. In view of this situation, the OECD recommended “The OECD Council Recommendation on the Protection of Children Online” and called on the international community to cooperate in the policy. This study examined the cooperative relationship between OECD recommendations and youth protection policies by international organizations from the perspective of international Internet youth protection. As a result, each international organization will cooperate with each other to promote international consultations, formulate guidelines, take advocacy activities through enlightenment education, and formulate treaties for the protection of youth. It was found that youth protection policies are being taken according to the roles played by international organizations. However, although the importance of evidence-based youth protection policies has been recognized, only a limited number of international organizations are actually conducting surveys to obtain evidence. In addition, the OECD Recommendation recommends an international comparison of policy impact assessments, but the current survey is limited to investigating youth Internet usage and awareness.
As a crucial national strategy of Chinese national ecological civilization construction, “the Yangtze-River Conservation” aims to achieve the overall planning and balance of ecological protection and urban spatial development at the macro-scale of the entire river basin. In practice, there are significant differences among cities along the Yangtze-River. Different from the central large cities which have concentrated resources, technology and human resources, small and medium-sized cities are limited by their resources, location and underdeveloped economic level. Therefore, differentiated and intensive urban spatial structure and land use mechanisms will be of great significance to sustainable urban construction in the future. In this study, 8 medium-sized waterfront cities in Chongqing Watershed Section of the Yangtze River Economic Belt were detailed investigated, revealing the dynamic spatial-temporal relationship between urban space, water and citizen life in history, which can be summarized into 4 types of urban spatial structure evolution models. Based on this, through cross-comparison of environment, population, economy, traffic data and land construction indexes of these cities, the following five intensive use land mechanisms are proposed: 1. Evaluation-- evaluating ecological sensitivity of built-up areas as the basis; 2. Accounting-- setting up a coupling model of land development index and ecological evaluation to avoid extensive land expansion; 3. Grading-- identifying key areas of land use, to concentrate resources; 4. Resilience-- formulating dynamic Resilient indexes to improve the ability to resist risks; 5. Collaboration-- a platform for land use information sharing between cities to achieve resource complementarity.

There are areas so ecologically valuable (and undisturbed by human activity) that they are in need of protection; according to Khan (2003) 10.4% of the land area in Pakistan falls under the Protected Areas category. He further claims that ‘the size, distribution and management of these areas does not meet the needs of the ecosystem they are meant to safeguard’ and ‘the communities living alongside the area should have a hand in management and should derive benefits from there otherwise, development activities in areas adjacent to PA’s often conflict with biodiversity conservation.’ As part of an architectural design thesis, a study of Kumrat Valley was undertaken; located in the Upper Dir District of the KPK province in Pakistan, it is an area with dense forests (and considerable natural beauty) that caters to many tourists (and rapid hotel construction). Thus, to safeguard the valley as a protected area, so it can be appreciated by locals and visitors for many decades to come, a series of design interventions was proposed as a model for the management of Kumrat Valley through community engagement. A masterplan of a select area was developed and hotel typologies were proposed - all considering that ‘PA management schemes often fail because benefits for local people are not realized, and their participation is neglected’. (Hirschnitz-Garbers and Stoll-Kleemann, 2010). The emphasis was on the design process, where community, program, building footprint, seasonal activity, and the character of Kumrat Valley were considered holistically.
Tuesday November 2

Parallel Sessions

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.
Tuesday Live Stream Session 1
Cultural Sustainability: Protecting, Preserving and Conserving
Session Chair: Maxime Jaffré

60725  13:00-13:25
Understanding Local Cultural Factors Towards the Achievement of the Sustainable Development Goals
Eduardo Ordonez-Ponce, Athabasca University, Canada

The United Nations Sustainable Development Goals (SDGs) are probably the greatest agreement ever achieved among countries to end poverty, protect the planet and ensure peace and prosperity for all by 2030. However, international policies such as the SDGs have forgotten the inclusion of local cultures that would enable the achievement of their goals. This is certainly one of the problems that the Millennium Development Goals had to achieve their success. Culture and sustainable development have been studied in the context of corporations, educational systems, as well of environmental sustainability. However, the role that local cultures play in the achievement of sustainability is a connection not yet fully explored. This research contributes to understanding the role that local cultural factors play in the achievement of the SDGs with the purpose of shedding some light into the cultural nuances of every country in the attainment of sustainability. To achieve this purpose, regression models were used considering Hofstede’s cultural dimensions as independent variables at the country level and the 2020 country SDG Score, overall and as partial scores, as dependent variables. The datasets contain more than 100 countries. Results show statistically significant relationships between some of Hofstede’s cultural dimensions and the SDG Score at the country level in general and for some groups of countries (organised per income, classification, continent, and region), and between the cultural predictors and most of the SDGs. This research seeks to contribute to policy development by highlighting the relevance of local culture in the achievement of the SDGs.

60793  13:25-13:50
Rural Culture Preservation in Rural Tourism Development in the Suburban Villages of Large Cities in China: Case Studies From Nanjing
Yuanyue Zong, Southeast University, China

In the context of rapid urbanization, many suburban villages in China have started the tourism-orient transformation by virtue of supporting policies and individual advantages. However, rural cultural decline under disruption and ignorance has become a major pressing issue limiting the rural tourism development and the urban-rural integration process. Recently, scholars and practitioners have drawn attention to the protection, conservation and revitalization of rural culture in tourism development. This research explores the protection and inheritance of rural culture in tourism transformation practices of suburban villages in large cities of China through qualitative and quantitative analysis derived from investigation of 17 culture-featured villages in suburbs of Nanjing, Jiangsu, China. The article identifies the changing patterns in demand and shifts in the attitudes toward rural culture during the rural tourism development through literature review and interviews. Rural culture protecting and promoting strategies are summarized, including culture-related industry introduction, rurality and characteristic highlighting and the collaboration of urban-rural operators. Further, real-time visiting numbers of the investigated villages are extracted from a local service platform (Nanjing Beautiful Countryside Big Data Service Platform) 5 times a day for a month to serve as an indicator of popularity, while comments and ratings from the tourists are aggregated from field interviews and major travel websites. The statistics confirm the influence of rural cultural elements on rural tourism satisfaction. Finally, the article points out the shortcomings in culture construction in the current rural tourism transformation and proposes a discussion on the authenticity of rural culture.
Thailand’s COVID-19 Crisis Management and Resilience: Wellness SMEs
Surada Chundasutathanakul, University of the Thai Chamber of Commerce, Thailand
Suthawan Chirapanda, University of the Thai Chamber of Commerce, Thailand

The research aims to explain COVID-19 crisis management and resilience in wellness business sector in Thailand. The country has been dealing with the pandemic since late 2019 and the virus has spread in various time spans, or waves through 2019–2021 where the government has implemented many policies and measures to relieve the pandemic situation. The main problem, apart from the pandemic itself, is lack of cooperation in information sharing between responsible organizations as they sometimes compete against each other to get public recognition. That worsens both the pandemic control and people’s trust in government. Another problem is that the policies, such as closing various places and financial aid measures, that have been issued for relieving the situations are ineffective. That shows that policy makers and those affected from the pandemic and the policies are not in the same page and the business sector that is most affected is wellness business, namely massage parlors, spas, hair salon and gyms because they are the first to be closed and the last to be reopened. The research is qualitative by nature and it uses in-depth interviews and focus groups with relevant government and private agencies. It uses social capital, social network and resource-based theories to comprehend the phenomena and explain how Thailand copes with the COVID-19 in the matter of crisis management and resilience for wellness business.

Revisiting External Stakeholders’ Role in Environmental, Social and Governance (ESG) Disclosure: A Systematic Literature Review
Wong Wai Khuen, Multimedia University, Malaysia
Teh Boon Heng, Multimedia University, Malaysia

An increasing number of countries have implemented mandatory environmental, social and governance (ESG) disclosure to encourage listed companies in apprising their stakeholders on the ‘non-financial’ aspects of relevant operational risks, resilience and outcomes. Recent studies however revealed that mandatory disclosure in most cases does not increase the quality of filed reports, thus may hamper ESG investment decisions and the global corporate community’s ongoing effort in addressing sustainability challenges. To date, researchers have largely focused on investigating the effect of company characteristics (firm level) on ESG disclosures. This systematic literature review contributes to the scarce evidence concerning the growing influence of external stakeholders including international buyers, rating agencies, foreign investors, media, non-governmental organisations and regulatory bodies in demanding ESG credentials of companies. The findings offer insights to policy makers and industry practitioners on leveraging the stakeholders by channelling their distinctive sources of contextual pressure to influence ESG disclosure decisions by companies.
**Electricity Savings and Carbon Mitigation Potential of a University Campus in Ho Chi Minh City, Vietnam**

Thanh-Tu Tran, Vietnam National University Ho Chi Minh City, Vietnam  
Boi-Nghi Diep, Vietnam National University Ho Chi Minh City, Vietnam  
Phuong V.H. Nguyen, Ho Chi Minh City University of Food Industry, Vietnam

This study estimates the electricity consumption and related carbon dioxide (CO2) emissions for the buildings and facilities of the main campus of the International University – Vietnam National University in Ho Chi Minh City, Vietnam. The AIM/Enduse model is used to calculate the CO2 emissions in 2019 based on the recorded electricity consumption and project the electricity consumption as well as the CO2 emissions for the two scenarios, namely 2030 baseline and 2030 mitigation, in 2030 based on the future strategic plan to evaluate the energy savings and CO2 mitigation potential for the university. We found that space cooling accounts for 67.9% of total electricity use, followed by laboratory equipment with 19.1%, official equipment with 9.4%, lighting with 1.7%, and remaining services with 1.4%. If electricity efficiency technologies are applied, especially in space cooling service, then the electricity consumption and CO2 emissions in 2030 could be 13% less than baseline scenario. Consumer behavior, particularly students, is also important in increasing the potential of electricity savings for the university. These findings for A1-A2 buildings are necessary for IU-VNU in implementing energy savings and mitigation measures for the new building A3 to achieve sustainable investment and higher CO2 mitigation potential.

**Pingtung County Recovered From Natural Disaster and Achieving the Goal of Providing Domestic Electricity 100% by Green Power**

Men-An Pan, Pingtung County Government, Taiwan  
Chun-Chung Lu, Pingtung County Government, Taiwan  
Hsing-Yuan Yen, Pingtung County Government, Taiwan

Pingtung County, the southernmost county of Taiwan, was hit by typhoon Morakot in 2009 which caused severe flooding in coastal areas and affected agricultural developments. Pingtung County has taken the lead in Taiwan in promoting photovoltaic industries to set up solar panels on abandoned fishery ponds since its daily average insolation is 4.5hr. The "Aqua Solar Farm" project improves the livelihood of fishermen, preserving underground water to restore terrain and awakening the consciousness of energy transformation in Taiwan. After engaging the project "100% Renewable Cities and Regional Network" organized by ICLEI in 2016, Pingtung aims for the goal of achieving domestic electricity 100% provided by green power through the strategies of “Multi-field Development of Green Power” and “Multiple Utilization of Lands or Official Buildings with Solar PV,” installing Solar PV systems on public buildings and agricultural facilities and reducing odor from livestock manure by turning biogas into renewable energy. Other solar PV projects have also been implemented based on local conditions without affecting the original facilities’ functions (PV systems on dikes and PV covered court at schools.) Recently, the projects “Severe Subsidence Area for Solar PV” and “Abandoned Lands due to Illegal Gravel Mining for Solar PV” have simultaneously been implemented on non-arable lands. In the progress of achieving the goal of 100% green power for 288,000 households by the end of 2022, the amount of renewable energy installed capacity has reached approximately 726 MW, which is sufficient for half of the population in Pingtung County.

**The Politics of Knowledge in Black Carbon Mitigation: Policy Entrepreneurs, Framing and Structural Environments in Europe and Asia**

Pam Aalto, Tampere University, Finland  
Anna Claydon, Tampere University, Finland

Mitigation of black carbon (BC) emissions is one of the crucial short-term measures for climate change mitigation. In addition, fewer BC emissions would bring significant co-benefits since BC also impairs public health and food security, resulting in adverse socio-economic effects. In this article, the focus is on the politics of knowledge in BC mitigation. Drawing upon a content analysis of expert interviews and document data, a case study is introduced on Finnish policy entrepreneurs with a prominent record on BC mitigation, including both public and private sector actors. The analysis proceeds from the cognitive frames of policy entrepreneurs, conceptualised to comprise problem definitions which in turn are influenced by the constellation of underlying interests ranging from climate and health issues to exports of mitigation technology. On this basis, we assess how the policy entrepreneurs seek to grasp the structural environments within which they must operate to realise their interests. Two such structural environments are analysed: the EU market, and the Asian market which emerges as a key direction of interest, being globally the most significant origin of BC emissions and hence comprising a potent market for mitigation technologies and area of policy intervention. We find a predominantly narrow frame of BC mitigation among the Finnish actors, contrasted to a ‘wide’ frame in the Asian context where BC is one among many co-pollutants and issue linkages more complex.
ACBPP Virtual Presentations (Pre-Recorded)

Watch pre-recorded Virtual Presentations on the following webpages:

vimeo.com/channels/acbpp2021

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.
To achieve the objective of building a "nonnuclear home" by 2025, the government of Taiwan has been actively developing the subsets of renewable energy, i.e., low-carbon and green energy, for carbon reduction. However, the active development of green power by the government may impact and destruct the ecological environment. This study selects the fishery and electricity symbiosis project in Cigu, Tainan, as the empirical objective to provide a better evaluation and analysis on the trade-offs between ecological conservation, marine fisheries, and green power development. The study employs the theory of planned behavior (TPB) and the contingent valuation method (CVM) to analyze the factors influencing the local residents’ behavioral intentions to safeguard ecological achievements in ecologically fragile areas through conservation trust funds. A total of 805 questionnaires were distributed, and 715 were considered to be valid after deducting the invalid ones, with a recovery rate of 88.9%. The study results showed that attitudes (ATT), subjective norms (SN), perceived behavioral control (PBC), environmental concern (EC), and environmental risk (ER) have significantly influence the behavioral intention to pay eco-compensation fees; the local residents’ willingness to pay for the conservation trust funds was NT$621.4/year, and it decreased to NT$545.9/year after the implementation of fishery and electricity symbiosis. The drivers of ATT, SN, PBC, EC, and ER can be used by policy makers to direct local residents’ intentions and behaviors toward conserving ecological achievements in fragile eco-environmental areas through payments for ecosystem services. Thus, this strategy can improve the sustainability of ecological and environmental restoration programs.

The Critical Relationship Between Organizational Design and Digital Transformation
Anshuman Khare, Athabasca University, Canada
Brian Stewart, University of Alberta, Canada

The generally accepted industry understanding of digital transformation is that it is a process and culture-driven initiative with the objective of re-architecting the organization through innovative uses of technology. The focus being on substituting technology for labour by way of lean user focused process designs to improve operational efficiencies, customer experiences and develop new products and services. The need to accompany these shifts with supportive organizational change management to effect cultural receptivity is generally recognized. However, the need for supportive organizational redesign has generally been occluded and therefore has received less attention. An organization’s structure reflects its business model and the strategy it has adopted to achieve its vision and objectives. For digital transformation to be successful, it will require a digital shift or elimination of workloads that have systemic effects on the pre-existing operating structures. To accommodate and sustain these impacts requires the operating model to be reformulated to reflect the desired future state. Thus, a more comprehensive change to the business is needed, one where digital technology is a synergistic partner rather than a dominant one. This presentation will pursue the organization adjusted digital transformation hypothesis, using a transformation in a Canadian University as a case study, from an enterprise-wide transformation perspective. We will review organizations that have attempted a transformation through a more Inclusive approach compared to those adopting the narrower technological focus. We will identify key attributes of organizational change that are synergistic to digital adoption and provide potential pathways for other organizations to follow.

Re-assessing the ‘Bucket-list’: An Exploration Into How the Covid-19 Pandemic Has Changed Tourist Intention Criteria
Velith James Jain, Webster University, Thailand, Thailand
Tim Andrews, Webster University Thailand, Thailand
Yalan Wang, Chulalongkorn University, Thailand

The Covid-19 pandemic constitutes a global crisis which the tourist industry has never previously experienced. Faced with weeks, months and even years of intermittent lockdowns of varying intensity and restricted international travel possibilities, individuals and families have increasingly resorted to compiling future travel ‘wishlists’ as a means both to cope and to see ‘into the light’ at the end of the current Covid ‘tunnel’. Reporting on a dataset of 364 participants compiled in the UK during the period March 2020–January 2021, we contribute to the nascent but growing research which seeks to both understand and predict the future tourism plans of consumers in a post-covid era. From the initial survey, their ‘bucket-list’ of key desired places to visit has changed due to the construed influence of the covid pandemic. Qualitative interviews with a subset of 23 respondents then served to deepen our understanding of their reasons, providing insight into how perceptions of the Covid-19 pandemic both as concerns the present and the future (short, medium and long-term). Findings showed that due directly and, or, indirectly to the Covid-19 pandemic tourist feedback showed that – compared with their ‘bucket list’ before the crisis - they were less likely to visit locations with perceived undeveloped medical systems, and less likely to visit countries with command-and-control styles of governing. Implications for destination management agencies and policymakers are both significant, especially the need for safety and security moving forwards.
This qualitative study aimed at investigating how the use of Virtual Reality Literacy (VRL) contributes to creating virtual agents story re-tellers. The study compared the retellings of a silent story shows by fourth grade students (n=6) by exposing them first to a TV show and the same show using a VR. In a very important sense, the study tried to fathom the differences of retelling volume and reactions by exposing the same students to two different modes of visual literacy representation of the same content. To accomplish that different reading strategies such as: Retelling, Gist Recalling, and Elaboration were employed. After using the TV and VR shows, the students used their natural expressions and responses to retell the stories. Various data sources were used in this study including: Videos, audios, and visual reading materials. The study collected and captured oral elicitations through Arabic or English. The data gleaned from the actual materials used in the study were analyzed through observations, audio-visual documents (videos) and casual interviews. The study revealed that students retell, elaborate, and recall the gist of the silent story in VR more than in TV. They showed their excites and their interactions when using VR more than TV while watching the silent story. They live the experience of the story as if they were part from it when using the VR. The results from this could contribute to our knowledge base, pedagogical base, and research of using virtual reality shows as vibrant tools in transforming literacy.
Resilience as a Policy Goal and a Policy Measure: South Korea's New Deal Policy in the Post–COVID–19 Era
Jeehyun Park, Sophia University, Japan

Resilience draws attention as a way to combat the unprecedented uncertainty today. Especially in this post–COVID–19 era, a sense of insecurity penetrates nearly every aspect of our lives, from political to economic, social, and cultural dimensions. At times, those dimensions meet and overlap each other, affecting and being affected. Resilience thus can be both a policy goal and a policy measure to the goal. South Korea, in July 2020, announced a new policy package, the Korean New Deal, while grappling with the COVID–19 crisis. The three main components are the digital economy, green technology, and the social safety net. This is a shift to a new path for resilience building in industrial, environmental, and social sectors. Of these, the most vulnerable one is the social sector, thus weaving the social safety net tighter has become one of the top policy priorities. The government has taken aggressive measures in tackling this, distributing four cash and card subsidies in 2020, followed by two more subsidies in the first half-year of 2021. South Korea's policy response to the pandemic crisis was mainly a two-track approach: offering unconditional cash transfers and openly examining universal basic income (UBI). Such a policy measure and public policy discourse indicate the interconnected resilience mechanism in which increasing economic resilience may lead to social resilience. This paper will further explore the link between economic and social resilience through the case of South Korea's post–COVID–19 policymaking along with the impact of subsidies on the social safety net.
ACSEE Virtual Presentations (Pre-Recorded)

Watch pre-recorded Virtual Presentations on the following webpages:

vimeo.com/channels/acsee2021

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.
Understanding ESG: Its Increasing Awareness, Financial and Sectoral Importance, and Its Role During the COVID-19 Pandemic
Guia Theresa Eguia, Seoul National University, South Korea

The paper reviewed the existing literature on the financial and sectoral importance of the Environmental, Social, and Governance (ESG). Given the expanding awareness of the stakeholders on environmental and social issues, ESG has continuously gained attention through the integration of its sustainable characteristics for the long-term investments. The paper discussed the motivations for the relevant parties to integrate ESG in their overall business model. In general, these ESG motivations boost stakeholders’ efficiency, risk mitigation, transparency, reputation, and overall marketability by utilizing ESG characteristics, which consequently improve its financial performance. It also put emphasis on the effects of ESG on environmental, social, and governance sectors to identify the sectoral impact of ESG on each pillar. By addressing each ESG sector, the paper provides a non-financial perspective which can be used to address corporate governance and socio-environmental impact. Lastly, to further emphasize the importance of ESG and its role on the long-term investments, the paper also conducted a review of the existing literature about the performance of ESG stocks during the market collapse due to the COVID-19 pandemic. It shows that ESG stocks have outperformed its counterparts on most cases. These studies showed that ESG were more robust and risk-averse during the pandemic than other investments.

Ecosystem Restoration as a Part of Energy & Environmental Life Cycle Contribution for Socio-Cultural Sustainability in Trubaindo Coal Mining, Indonesia
Dewi Permatasari, Institut Teknologi Bandung, Indonesia
Sony Herlambang, Trubaindo Coal Mining, Indonesia
Sri Handayani, Trubaindo Coal Mining, Indonesia
Jones Silas, Trubaindo Coal Mining, Indonesia
Budhi Cahyono, Trubaindo Coal Mining, Indonesia
Wahyu Harjanto, Trubaindo Coal Mining, Indonesia

This paper discusses the ecosystem restoration efforts conducted by TCM, one of the coal mines operating in West Kutai, East Borneo. The activities conducted by TCM starting from initiatives in managing good mining practices and are based on the principles of sustainable environmental management. Restoration efforts start with a simple step, namely, replanting the post-mining area by adding value to the socio-cultural-economic environment of the local community. This principle is used for various activities of TCM, ranging from Life Cycle Assessment, Energy Efficiency, Emission Reduction, B3 and Non-B3 Waste Management, Water Efficiency and Wastewater Load Reduction, to Biodiversity Protection which is all Community Empowerment based. Some of the programs presented in this paper include life cycle inventory efforts with a cradle-to-grave system for the coal extraction cycle to its use as fuel in metal smelting until it becomes ready products and its post-use. Then in mining activities, energy efficiency related to hauling distances, also associated with emission reductions. In addition, efforts to reduce B3 waste through recycling used oil waste amounting to 5 tons and reusing non-B3 waste type conveyor belts from mining activities as well. In water efficiency, runoff water also functions for watering the mine road by 1000 m3. It directly reduces the amount of water flow in the settling pond, reducing the processing load. Then efforts were made to plant local endemic tree species in the reclamation area and developed in cultural-based community empowerment activities at the Lou Bentian Lamin House, inaugurated at 1st Semester of 2021.

Assessing the Factors that Determine Renewable Electricity Consumption in the United States: An Economic Overview
Hind Alnafisah, Princess Nourah Bint Abdulrahman University, Saudi Arabia

The consumption of renewable energy significantly emphasizes the global warming and energy security phenomena. The current work determines the main indicators that alter renewable electricity consumption. Federal tax policies, carbon dioxide (CO2) emissions, and energy price elasticity (electricity, natural gas, coal, and crude oil) could be considered as drivers of renewable electricity consumption. Panel cointegration estimates are utilized for four groups of consumers of renewable electricity—residential, commercial, transportation, and industrial—from 1985 to 2020. The empirical results show that in the long run, tax credit, gross domestic product, and CO2 emission elasticities affect residential renewable energy consumption positively. Furthermore, natural gas affects the consumption of renewable energy negatively. The lower natural gas price levels make electricity generation from natural gas cost competitive and shift electricity consumption from the competitive to the cheaper cost. Based on other results that support this finding, electricity price has a significant positive impact on renewable energy consumption. Emission is an externality of the non-renewable energy market, and it ensues from failure in the renewable energy market.
Economic Sustainability: Sustainable Businesses and CSR

60742

Showcasing Experiential CSR Learning at a Small, Private University
Michael Gravier, Bryant University, United States
Eileen Kwesiga, Bryant University, United States
Charles Cullinan, Bryant University, United States
Jacqueline Saslawski, Bryant University, United States
Kathryn Ostermeier, Bryant University, United States
Maura Dowling, Bryant University, United States

This article describes the journey to achieve the United Nations’ Principles of Responsible Management Education Certification (PRME) at Bryant University, the culmination of work across five departments and more than a dozen programs. We describe our distinctive experience resulting from an institutional history of experiential, relevant learning and strong interest in Corporate Social Responsibility (CSR) that provided a uniquely supportive environment for PRME certification. The certification process was coordinated by a multidisciplinary committee that compiled inputs from all faculty in the College of Business. Compiled artifacts supportive of PRME certification include 72 business courses (42% of the 172 total business courses offered), 11 science courses, and three certificate programs. Publications include 56 undergraduate student honors theses and 114 peer-reviewed journal articles. The institution also engages 20 campus organizations and partnerships related to PRME principles. We provide descriptions of some successful course projects and describe faculty engagement. Although not without challenges, the PRME-related curricular content provides students with an integrative, multidisciplinary experience that better prepares them for their careers. Benefits include greater student engagement, enhanced industry relevance, strong accreditation reviews, garnering of certifications such as PRME, and a sense of purpose across business departments and even across the university. Challenges include coordination of diverse interests, staying focused on practical and relevant outcomes (avoiding "greenwashing"), and converting ambiguity of qualitative CSR outcomes into objective business results.

60778

Integrating SDGs Into Binding Treaties (BITs) to Advance Their Implementation by Foreign Investors: The Case of Hong Kong
Seid Mekonnen, Jijiga University, Ethiopia

The implementation of the Sustainable Development Goals (SDGs) by foreign investors operating in Hong Kong is very slow – only 3.3% of them engaged with the SDGs. It is desirable to find a legal solution (as a policy measure) that helps to improve the implementation gap. I believe some solutions can be found in the applicable BITs if they incorporate SDGs in a binding manner. I argue, to some extent, it could be possible to mitigate the implementation problems if the Hong Kong's bilateral investment treaties (BITs) incorporated SDGs-related provisions along with an enforcement mechanism. The existence of SDGs-related provisions could be used as binding sources of the investor obligations (in addition to obligations emanating from the 'soft law' of the SDGs), while the enforcement provisions would be helpful to enhance the power and capacity of Hong Kong's government and other stakeholders to monitor and require the foreign investors to comply with the SDGs. Therefore, I argue the solution is reforming the existing BITs with a view to incorporating the SDGs. ‘Amending treaty provisions’ (Incorporating provisions addressing right of states to regulate on SDGs) and ‘referencing global standards’ (incorporating provisions that gives references to the SDGs) can be taken as short term reform options as only 10 years left to achieve the SDGs. Methodologically, this work is a doctrinal type of research: I made a qualitative evaluation of the Hong Kong's BIT to identify their gap that restricts the implementation of SDGs and to propose the reform options for such BITs.

Energy: Renewable Energy and Environmental Solutions

61301

Life Cycle Thinking & Social Sustainability Based on Capacity Building: An Insight From Indominco Mandiri, East Borneo – Indonesia
Dewi Permatasari, Institut Teknologi Bandung, Indonesia
Suharyono N, Indominco Mandiri, Indonesia
Raymond S, Indominco Mandiri, Indonesia
Leo Krisna Esiarko, Indominco Mandiri, Indonesia
Taryono M, Indominco Mandiri, Indonesia
Era Tjahya Saputra, Indominco Mandiri, Indonesia
Bayu Suyawan, Indominco Mandiri, Indonesia

The coal mining's environment management issue has become a severe global concern. Various mining management activities in Indonesia are currently starting the mine closure phase and are concentrating on developing environmentally beneficial and low-emission products. Indominco Mandiri, a coal mining company in Bontang, East Kalimantan, has implemented a capacity-building program based on social and environmental sustainability and a life-cycle appraisal culture. IMM conducts various leading environmentally sustainable activities through this program, including The Establishment of a Solar-Farm in a mixture of non-renewable power plants into a single Micro Grid system for energy efficiency 7,200 GJ and emission CO2-eq reduction of 2,000 tons each year. The reduction and usage of sources also conducted in the management of tons of B3 and Non-B3 waste to minimize the residue collected in the waste landfill. Concerning the aspect of community empowerment, IMM also focuses on the primary challenges related to the crisis of clean water with total water conservation calculated in m3, and product development from integrated plant cultivation and re-vegetation activities of Aren Genjah palm trees. In addition, IMM contributes to acid mine drainage control by reducing pollutant load. All of these activities contribute to the Sustainable Development Goals (SDGs) by ensuring economic, social, and environmental preservation in business activities and each stakeholder involved. There are numerous challenges in preparing for capacity building in all aspects, but this is considered a learning process with long-term advantages.
Recent research indicates that the COVID-19 pandemic prompted a decrease of greenhouse gas (GHG) concentrations, although relatively small on the global scale. Such is the case in the education sector where emissions are mainly due to high academic mobility, the implementation of lockdown and shift from classroom to remote learning are expected to change emission profile. Our study aims to establish the impact of the pandemic on university emissions using University of the Philippines Cebu (UPC) as a case study. Emissions in 2019 and 2020 were calculated to compare with base year emissions in 2018. Total GHG emissions in 2018 was estimated to be 1,177.6 tCO2e then increased by 6.2% in 2019 due to increased student enrolment. In 2020 the distribution of emission sources changed significantly including reduced electricity consumption, solid and water waste generation, and overseas travel. Meanwhile, emissions from fuel consumption of university vehicles increased by 40.0%. As public transportation became limited, the university decided to use school buses as service vehicles for the daily commute of employees, hence the sharp rise in fuel consumption. Effects of the pandemic on university activities eventually resulted in GHG emissions of 650.0 tCO2e, equivalent to 48.9% decrease. If the pandemic had not occurred, which entails business as usual scenario, 2020 emission is expected to reach 1,336.8 tCO2e. Results suggest that the pandemic response of UPC has shifted its GHG emission characteristics, therefore its carbon neutrality plan must also be adjusted accordingly.

Climate change poses substantial challenges for the effective implementation of counter-measures. Carbon emission reduction and climate impacts adaptation require actions from the international level to the local level in terms of the geographic scale and the level of government. Here the implementation theory poses questions regarding the implementation of meta-policies, the effectiveness of top-down and bottom-up approaches, and coordination, cooperation, and consistency between different levels of governments. Inquiries on cross-sectoral coordination follow these questions as climate actions affect various economic and social activities, which cannot be categorized merely into one sector. This study examines local climate action planning and implementation of national carbon reduction goals in Japan, focusing on the transportation and land use sector. It analyzes the responses to two original surveys on approximately 100 local governments, in addition to the report prepared for the Ministry of Environment. The first original survey was sent to a unit that prepares local action plans. The second survey was sent to one of the transportation-related units, which is considered most relevant to climate action planning by each local government. The initial analysis indicates (a) lack of clear concrete instructions for effective local actions, (b) lack of funding for implementation, and (c) lack of coordination at the local government between the sections at the local government, which at least partially derives from the siloization at the national level. As a result, while most local governments prepare local action plans to meet procedural requirements, the efficacy of implemented actions remains unclear.

The protection of water resources ecological environment is one of the most important task in watershed in China. The evaluation of water resources carrying capacity (WRCC) is the foundation of suitability of territorial space development. It is necessary to further analyze the weaknesses of coordinated development of various dimensions of WRCC and explore the basis of territorial space development and optimization. This paper considers 中国特有的政策任务, namely, “three water management together”, the types of development priority zones, “red lines" control, and national spatial suitability evaluation, to construct the evaluation index system of WRCC. Monomial evaluation, integrated evaluation and coupling coordination analysis method are used separately to evaluate the carrying index, comprehensive carrying index and coupling coordination degree of WRCC in Qingjiang River Basin. The results show that (1) as far as monomial evaluation is concerned, water resources supply is often overloaded on the overall economy, industrial and agricultural development; (2) the comprehensive index of WRCC of the counties in the southwest is obviously better than that of the counties in the northeast; (3) the degree of coupling coordination of water resources carrying in the Qingjiang River basin is not high, which is basically in the primary coordination or barely coordination; (4) the short board of water resources in the Qingjiang River basin presents obvious spatial characteristics, which from west to east are respectively water environment, water resources and water ecology lagging. This paper measures WRCC for industry, agriculture, life and ecology, which is helpful to promote the suitability evaluation of land space development. Meanwhile, the case study of Qingjiang River Basin provides reference for other regions to implement the “double evaluation".
Environmental Sustainability & Human Consumption: Waste

61299
Preliminary Life Cycle Assessment to Support Socio-Energy Innovation for Metal Processing Industry: An Approach from Pindad, Bandung – Indonesia
Dewi Permatasari, Institut Teknologi Bandung, Indonesia
Trianto Sutrisno, Pindad Bandung, Indonesia
Yunus Somantri, Pindad Bandung, Indonesia
Kriska Cahyadianus, Pindad Bandung, Indonesia
Zen Wahyudin, Pindad Bandung, Indonesia
Dwi Sumeitri, Pindad Bandung, Indonesia
Fajri Ramdhani, Pindad Bandung, Indonesia

In order to support and participate in the Sustainable Development Goals (SDGs) contribution, one of the instruments is the life cycle assessment as an approach to the study of clean production in the manufacturing industry. Pindad Bandung, which operates in West Java, Indonesia, is a metal processing manufacturing industry producing multiple Indonesian-made products. As innovation in supporting product quality and more benefits to the surrounding community, a preliminary LCA study was carried out starting from evaluating the energy balance and emissions in the production process. The resulting innovation supports financial savings and provides a competitive advantage in developing environmental-based community empowerment programs and core competencies of business processes. Several discussions are related to special programs in energy, environment, and community empowerment, each of which is related to the basic study of LCA. As for the LCA, the Gate to Gate system has a limitation with ton as the product unit. Meanwhile, in the energy and emission aspects, an electric motor program is internally manufactured to reduce the use of oil-fueled vehicles with an energy efficiency and reduce GHG emissions. In the 3R aspect of B3 Waste, there is a replacement program for coolant, which has a longer lifetime, while in Non-B3 Waste, 100% of the remaining raw materials are reproduced into multi-products. The water efficiency aspect focuses more on assessing water use and potential leakage, integrated with the water performance management roadmap. Meanwhile, in reducing the wastewater load, the unit is rejuvenated to optimize the wastewater treatment, reflected LCA valuation.

Social Sustainability and Sustainable Living

61300
Socio-environmental Life Cycle & Its Relevance to Long-term Sustainability: A Key Success of Jorong Barutama Greston Coal Mine Closure, South Borneo
Dewi Permatasari, Institut Teknologi Bandung, Indonesia
Elisa Weber Siregar, Jorong Barutama Greston, Indonesia
Rasmat Riady, Jorong Barutama Greston, Indonesia
Rizali Rakhman, Jorong Barutama Greston, Indonesia
I Gde Widiada, Jorong Barutama Greston, Indonesia
M Damali, Jorong Barutama Greston, Indonesia
Eka Novia Rhamdani, JBG Mine Site, Indonesia

Environmental management is currently a priority in various industrial activities, ranging from upstream activities such as mining and energy related to the manufacturing sector to various consumer products for daily activities to represent downstream activities. This paper discusses the closure of the mine managed by Jorong Barutama Greston (JBG) about a long-term social environment initiated with the principle of Life Cycle Thinking. It includes several essential activities in energy management aspects, such as the utilization of acid mine drainage as a source of electricity, associated with reducing CO2 emissions. In solid waste management, B3 waste is mostly reduced from the source, while non-B3 waste is mostly reused. As for water management, water use efficiency effort is conducted by recycling. The main focus in wastewater is reducing a load of wastewater through the use of organic matter. To ensure the successful integration of biological resource conservation with community empowerment, a plantation activity for 100 plants as raw materials for organic dyeing for Sasirangan fabric products is a Banjar cultural product. At least two groups of craftsmen have been empowered, consisting members and community income stability per minimum wage during the COVID-19 pandemic. In the bigger picture, JBG performs a thorough optimization of the natural resources utilization and renewable and alternative resources to maintain the wellness of the surrounding environment. It is also culture as part of preparations for the mine closure period. It is hoped is that social services for the surrounding community will continue and provide good environmental management practices.
Follow The International Academic Forum on Instagram and join the conversation using the hashtag #IAFOR
IAFOR depends on the assistance of a large number of international academics and practitioners who contribute in a variety of ways to our shared mission of promoting international exchange, facilitating intercultural awareness, encouraging interdisciplinary discussion and generating and sharing new knowledge. Our academic events would not be what they are without a commitment to ensuring that international norms of peer review are observed for our presentation abstracts. With thousands of abstracts submitted each year for presentation at our conferences, IAFOR relies on academics around the world to ensure a fair and timely peer review process in keeping with established international norms of double-blind peer review.

We are grateful for the time, effort and expertise donated by all our contributors.
Conference Reviewers

IAFOR depends on the assistance of a large number of international academics and practitioners who contribute in a variety of ways to our shared mission of promoting international exchange, facilitating intercultural awareness, encouraging interdisciplinary discussion and generating and sharing new knowledge. Our academic events would not be what they are without a commitment to ensuring that international norms of peer review are observed for our presentation abstracts. With thousands of abstracts submitted each year for presentation at our conferences, IAFOR relies on academics around the world to ensure a fair and timely peer review process in keeping with established international norms of double-blind peer review.

We are grateful for the time, effort and expertise donated by all our contributors.

Review Committee

William Baber, Kyoto University Graduate School of Management, Japan
Grant Black, Chuo University, Japan
Joseph Haldane, The International Academic Forum (IAFOR), Japan
Tom Houghton, Curtin University, Australia
Anshuman Khare, Athabasca University, Canada
Sela V. Panapasa, University of Michigan, United States
James W. McNally, University of Michigan & NACDA Program on Aging, United States
Haruko Satoh, Osaka University, Japan
Philip Sugai, Doshisha Business School, Japan

Senior Reviewers

Professor Anshuman Khare, Athabasca University, Canada

Dr Manuel Caingcoy, Bukidnon State University, Philippines
Dr Veliath James Jain, Webster University, Thailand Campus, United States
Professor Nagayuki Saito, International Professional University of Technology in Tokyo, Japan
Dr Franziska Schultz, Temple University, Japan Campus, Japan

Reviewers

Dr Manuel Caingcoy, Bukidnon State University, Philippines
Dr Veliath James Jain, Webster University, Thailand Campus, United States
Professor Nagayuki Saito, International Professional University of Technology in Tokyo, Japan
Dr Franziska Schultz, Temple University, Japan Campus, Japan
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AlHabbash, Maha</td>
<td>UAE University, United Arab Emirates</td>
<td>27</td>
</tr>
<tr>
<td>AlMohammed, Najah</td>
<td>UAE University, United Arab Emirates</td>
<td>27</td>
</tr>
<tr>
<td>Alnafisah, Hind</td>
<td>Princess Nourah Bint Abdulrahman University, Saudi Arabia</td>
<td>30</td>
</tr>
<tr>
<td>AlOthali, Safa</td>
<td>UAE University, United Arab Emirates</td>
<td>27</td>
</tr>
<tr>
<td>Chen, Han-Shen</td>
<td>Chung Shan Medical University, Taiwan</td>
<td>26</td>
</tr>
<tr>
<td>Chundasutathanakul, Surada</td>
<td>University of the Thai Chamber of Commerce, Thailand</td>
<td>23</td>
</tr>
<tr>
<td>Claydon, Anna Cynthia</td>
<td>Tampere University, Finland</td>
<td>24</td>
</tr>
<tr>
<td>Cortes, Aiza</td>
<td>University of the Philippines Cebu, Philippines</td>
<td>32</td>
</tr>
<tr>
<td>Ditta, Geoffrey</td>
<td>Nebrija University, Spain</td>
<td>27</td>
</tr>
<tr>
<td>Eguia, Guia Theresa</td>
<td>Seoul National University, South Korea</td>
<td>30</td>
</tr>
<tr>
<td>Ge, Yuqing</td>
<td>BNU-HKBU United International College, China</td>
<td>27</td>
</tr>
<tr>
<td>Harjanto, Wahyu</td>
<td>Trubaindo Coal Mining, Indonesia</td>
<td>30</td>
</tr>
<tr>
<td>Hoang, Lieu</td>
<td>Meiji University, Japan</td>
<td>18</td>
</tr>
<tr>
<td>Irfan, Hina</td>
<td>Beaconhouse National University, Pakistan</td>
<td>19</td>
</tr>
<tr>
<td>Iseki, Hiroyuki</td>
<td>University of Maryland, United States</td>
<td>32</td>
</tr>
<tr>
<td>Jain, Veliath James</td>
<td>Webster University, Thailand</td>
<td>26</td>
</tr>
<tr>
<td>Karnchanapoo, Kanok</td>
<td>Well Consulting Group, Thailand</td>
<td>28</td>
</tr>
<tr>
<td>Khare, Anshuman</td>
<td>Athabasca University, Canada</td>
<td>15, 26</td>
</tr>
<tr>
<td>Kwesiga, Eileen</td>
<td>Bryant University, United States</td>
<td>31</td>
</tr>
<tr>
<td>Lu, Chun-Chung</td>
<td>Pingtung County Government, Taiwan</td>
<td>24</td>
</tr>
<tr>
<td>Luo, Wenbo</td>
<td>Southeast University, China</td>
<td>19</td>
</tr>
<tr>
<td>MacNeil, Patricia</td>
<td>Dalhousie University, Canada</td>
<td>15</td>
</tr>
<tr>
<td>Meguro, Akane</td>
<td>University of Tsukuba, Japan</td>
<td>18</td>
</tr>
<tr>
<td>Mekonnen, Seid</td>
<td>Jiggiga University, Ethiopia</td>
<td>31</td>
</tr>
<tr>
<td>Ordonez-Ponce, Eduardo</td>
<td>Athabasca University, Canada</td>
<td>22</td>
</tr>
<tr>
<td>Park, Jeehyun</td>
<td>Sophia University, Japan</td>
<td>28</td>
</tr>
<tr>
<td>Saito, Nagayuki</td>
<td>International Professional University of Technology in Tokyo, Japan</td>
<td>18</td>
</tr>
<tr>
<td>Saputra, Era Tjahya</td>
<td>Indominco Mandiri, Indonesia</td>
<td>31</td>
</tr>
<tr>
<td>Schultz, Franziska</td>
<td>Temple University, Japan Campus, Japan</td>
<td>28</td>
</tr>
<tr>
<td>Tran, Thanh-Tu</td>
<td>International University - Vietnam National University Ho Chi Minh City, Vietnam</td>
<td>24</td>
</tr>
<tr>
<td>Wahyudin, Zen</td>
<td>Pindad Bandung, Indonesia</td>
<td>33</td>
</tr>
<tr>
<td>Wei, Yujie</td>
<td>China University of Geosciences, Wuhan, China</td>
<td>32</td>
</tr>
<tr>
<td>Widiada, Gde</td>
<td>Jorong Barutama Greston, Indonesia</td>
<td>33</td>
</tr>
<tr>
<td>Wong, Wai Khuen</td>
<td>Multimedia University, Malaysia</td>
<td>23</td>
</tr>
<tr>
<td>Zong, Yuanyue</td>
<td>Southeast University, China</td>
<td>22</td>
</tr>
</tbody>
</table>
Kyoto, 2021

November 09–12, 2021
The Kyoto Conference on Arts, Media & Culture (kyoto-amc.iafor.org)
The Asian Conference on Media, Communication & Film (mediasia.iafor.org)

Tokyo, 2021

November 25–28, 2021
The Asian Conference on Education (ace.iafor.org)

Barcelona, 2021

December 08–10, 2021
The Barcelona Conference on Education (bce.iafor.org)
The Barcelona Conference on Arts, Media & Culture (barcelona-amc.iafor.org)

Hawaii, 2022

January 06–09, 2022
The IAFOR International Conference on Education – Hawaii (iicehawaii.iafor.org)
The IAFOR International Conference on Arts & Humanities in Hawaii (iicahhawaii.iafor.org)

Tokyo, 2022

March 21–23, 2022
The Asian Conference on Education & International Development (aceid.iafor.org)

March 25–27, 2022
The Asian Conference on Language (acl.iafor.org)

March 29–31, 2022
The Asian Conference on Psychology & the Behavioral Sciences (acp.iafor.org)
The Asian Conference on Ethics, Religion & Philosophy (acerp.iafor.org)
The Asian Conference on Aging & Gerontology (agen.iafor.org)

May 05–07, 2022
The Asian Conference on Arts & Humanities (acah.iafor.org)
The Asian Conference on the Social Sciences (acss.iafor.org)

June 06–09, 2022
The Asian Conference on Cultural Studies (accs.iafor.org)
The Asian Conference on Asian Studies (acas.iafor.org)
Virginia, 2022

May 05–07, 2022

The IAFOR Conference on Educational Research & Innovation
(eri.iafor.org)

Paris, 2022

June 14–17, 2022

The Paris Conference on Education
(pce.iafor.org)

The Paris Conference on Arts & Humanities
(pcah.iafor.org)

London, 2022

July 14–17, 2022

The European Conference on Aging & Gerontology
(egen.iafor.org)

The European Conference on Education
(ece.iafor.org)

The European Conference on Language Learning
(ecll.iafor.org)

July 21–24, 2022

The European Conference on Media, Communication & Film
(euromedia.iafor.org)

The 10th European Conference on Arts & Humanities
(ecah.iafor.org)
Introducing the IAFOR Research Centre at Osaka University, Japan

The IAFOR Research Centre (IRC) is a politically independent, international and interdisciplinary think tank based at the Osaka School of International Public Policy (OSIPP), at Japan's Osaka University, that conducts and facilitates international and interdisciplinary research projects. The main focus is to encourage mutual international and intercultural understanding and cooperation in line with IAFOR’s mission of encouraging interdisciplinary discussion, facilitating heightened intercultural awareness, promoting international exchange, and generating and sharing new knowledge.

The IRC helps to nurture and capacity build by encouraging students to take part in international conferences and research projects, in line with the Osaka University’s Global 30 commitments from Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT).

For more information about the IAFOR Research Centre visit: www.osipp.osaka-u.ac.jp/iaforresearchcentre/