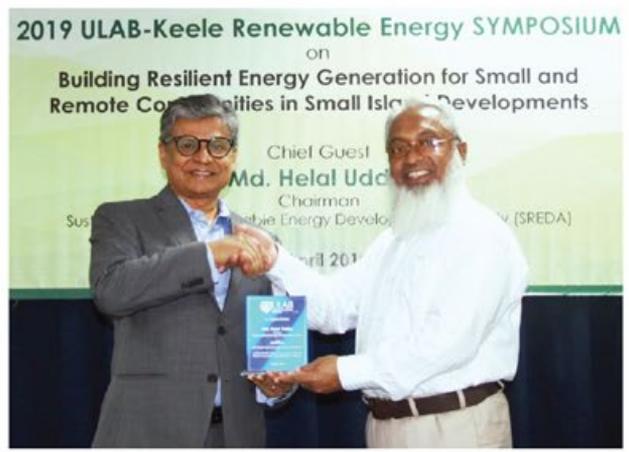


SHAPING THE THOUGHT PROCESS

CSD Newsletter
2019 | Issue 4



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BANGLADESH



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CONTENTS

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Graphic Design & Printing

Bindu

Director's Note	2
Editorial	4
Universities for Sustainability	7
The 4th Annual CSD Conference on Sustainable Development	10
Goal 12: Sustainable Consumption and Production	17
Goal 14: Life Below Water	28
Goal 13: Climate Action	30
Goal 11: Sustainable Cities and Communities	38
Goal 5: Gender Equality	43
Goal 4: Quality Education	46
Goal 3: Good Health and Well-being	55
Goal 10: Reduced Inequalities	57
Goal 7: Affordable and Clean Energy	59
Goal 17: Partnerships for the Goals	60
Visiting Researchers' Experiences	62
New Publication Round-Up for 2019	64

* The order of Sustainable Development Goals is present according to the volume of work in 2019



 CSD TEAM

Samiya Selim

2019 has been a very successful and productive year for the Center for Sustainable Development (CSD) and a large part of this is due to the positive connections we have formed with individuals and institutions, both in Bangladesh and internationally. Forging strong relationship, engaging in meaningful dialogue and establishing partnerships that are mutually beneficial and productive have allowed us to start new and exciting research projects around circular design, renewable energy, nature based solutions in urban spaces, land rights and equity issues, and building climate resilience. At the same time we have continued to work actively on achieving Sustainable Development Goals (SDGs) in Bangladesh and the role of universities in achieving these goals – through our teaching, research, student activities, sharing good practices, and local and global networking.

I invite you to read the updates on all the above in this edition of our CSD Annual Newsletter with summary of 2019 activities.

I want to share my recent experience in January 2020 where I was invited to give a plenary talk at the Kolkata Youth Summit on Climate Change. This was the largest gathering of young people coming together to address climate action in East India, more than 85 schools, both English and Bangla medium schools, attendance of over 3500 students. I must confess that I struggled a little bit on what I wanted to share with these high school young people that would capture their attention. Can they relate to our research in remote coastal and other vulnerable areas of Bangladesh,



working with fishing and farming communities on climate change adaptation, livelihoods and resilience? Or our work with policy makers on achieving SDGs? Or even our work with the fashion industry, circular economy, and climate mitigation?

I thought not...and decided to go with something more tangible that they could relate to and perhaps think that it's something they can work on towards climate action. My talk was called Changing Narratives – Acting Local, Going Global. I chose to not focus on climate change impacts or the science-based evidence on what we need to be doing to keep emissions below 1.5 degrees celcius above pre-industrial levels. Instead I gave them three examples as described below from CSD-ULAB on how we are tackling climate action in our work on sustainable development and wider sustainability issues.

Firstly, we are very passionate about embedding Sustainability in Education (this also happens to be

key elements of SDG Targets 4.7 and 12.8.) At ULAB, we do not have an Environmental Science (or similar) Department yet. We are working on a Master's Program, but that's still a couple of years away. In the meantime, what we have is a unique Minor in Sustainable Development, where all students from our different Departments – Bachelor of Business Administration, Media Studies and Journalism, Electrical and Electronic Engineering, to name a few – get to take five modules encompassing subjects such as Sustainable Development, Research Methodology, Climate Change, Biodiversity Conservation, and few choices of others – and get a minor in Sustainable Development Studies (SDS). At the same time, we work with these SDS Minor students and link them with internships, research, jobs, and publication opportunities as well as student activities outside the classroom (e.g. riverside clean up, sustainable tourism, and climate strikes).

What we are doing is creating and supporting the next generation of students who have sustainability embedded in their minds, in their behavior, and have the tools, knowledge and passion to want to lead a low-carbon lifestyle. We want the next banker, business entrepreneur, computer engineer, and journalist, to be equipped with the knowledge to include sustainability in their work, their everyday lives and those who can facilitate peer to peer learning as well.

Secondly, I spoke to them about our very own Greening ULAB Program. Acting local but connecting to the global energy and buzz of activities on the role of universities in achieving sustainability. We are now part of Environmental Association of Universities and Colleges and Association of Commonwealth Universities SDG Network. I shared with them our work on reducing water, energy, plastics and other material consumption at ULAB Campus. We have done some bits, but scaling up, embedding and generalizing sustainability actions within our own campus and then the higher education sector overall still needs lots of attention in order to increase impact and 'sustainability', and we plan to do a lot more in

this area of building green institutions in 2020.

Thirdly, I gave them one of the solutions that we think would help to support climate action – building a Circular Economy – Going from the narrative of the 3Rs – REDUCE, REUSE and RECYCLE and moving to the several more Rs (further details of this concept was shared at our Annual Conference on Sustainable Development Session on Circular Economy). Some of these include - REMEMBER how you could get by without it, RESPECT its value and all the resources used for producing it, REFUSE to consume, REDUCE your consumption, REUSE what you already have before buying new stuff, RETURN it to the manufacturer, REPURPOSE - can you use it for something else entirely? REPAIR have the shoe maker repair your broken shoes, tighten the screws, lubricate, google advice. RECYCLE, if something is recyclable, that's awesome. But remember that recycling takes a lot of energy.

In having written this talk and presenting to the students, my 2020 vision for CSD (at least my own personal goals at CSD) also became that much clearer. Keep it simple and keep it real!

Education is our strength, our students are our strength, and our partners are our strength. By focusing at the local level, sharing knowledge, making sure our research is communicable and can have impact, I think all this will go a long way to integrating sustainability in education and in the communities we live in. Acting local, but linking with global agendas (e.g. Circular Economy and SDGs), we can continue to identify solutions in tackling the wider and complex problems around climate change, inequality and achieving Sustainable Development.

Wish everyone a Prosperous and Peaceful 2020!

Dr. Samiya Selim
Associate Professor and Director
Center for Sustainable Development
University of Liberal Arts Bangladesh

CSD'S ROLE IN ACHIEVING SDGS

Rumana Sultana

The 2030 Agenda for Sustainable Development covers a wide range of interrelated goals, including poverty eradication, gender equality, sustainable city, sustainable production and consumption, and peace for all by 2030. Policies and decisions to meet the Sustainable Development Goals (SDGs) need to be informed by relevant pieces of evidence that are co-designed and co-produced by the appropriate stakeholders and within the social and political contexts. Universities are uniquely placed to contribute to cross-cutting implementation of SDGs, and providing an invaluable source of expertise in research and education on all sectors of SDGs.

The Center for Sustainable Development (CSD), University of Liberal Arts Bangladesh (ULAB), is a pioneering institution in Bangladesh and continues to play an important role in achieving SDGs and ensure future sustainable development. This note explains the state of progress that CSD-ULAB has made in ensuring sustainable development. Furthermore, it shows how this Center turned into a laboratory for creating sustainable future invention. This Center plays an active role in incorporating SDGs in the curriculum, research, operations, community outreach and service and student life.

Curriculum

CSD-ULAB offers opportunities for all students, regardless of Department and Major, to get exposed to academic courses related to the SDGs. This Center offers undergraduate students the option to take a minor in Sustainable Development. Courses



in this minor include - Introduction to Sustainable Development, Social Theory and Methods of Social Research, Introduction to Climate Change Debate, Environmental Science, Biodiversity and Nature Conservation, Organic Farming, and Seminar on Grassroots Economic Development.

Research

CSD team conducts varied sustainability-oriented research. Specifically, researches dedicated to ensuring environmental sustainability, natural resource management, urban sustainability, climate action and gender equality. Furthermore, Center team members are involved in many international projects and conduct collaborative research projects (e.g. with Dublin City University, Keele University, and Heidelberg University) as co-principal investigator and field researchers. Since this Center's establishment in 2006, growth in peer-reviewed journal article,

CSD'S ACTIVITIES ADDRESSING SDGS IN 2019



EDITORIAL

book, and book chapter publication has increased. Recently, this Center has published two books entitled 'The Environmental Sustainable Development Goals in Bangladesh' and 'Resilience in Action Challenges and Solution to Climate Change in Bangladesh' by renowned publisher Routledge, Taylor and Francis Group, London and University Press Limited, Dhaka, respectively.

Campus Greening

'Greening ULAB' is one of the key areas where CSD-ULAB successfully works. Sustainable operations of campus greening include recycling, waste minimization, energy and water conservation, ethical purchasing, sustainable landscaping, green buildings, and more. Recently, ULAB as the first university in Bangladesh, introduced segregated waste bins in 2019 in campus in association with Bangladesh Petrochemical Company Limited (BPCL). Besides, this Center has been working with Bashundhara Paper Mills Limited (BPML) since 2014 for recycling paper used in ULAB.

Academic Outreach

CSD team members and students who are doing minor in Sustainable Development are engaged in sharing knowledge derived from faculty and students research with academicians, community residents and officials. Furthermore, this Center is involved in sharing mutually beneficial resources, and the appropriate and timely dispatch of researches and experts to collaborate in addressing community-related issues. It organizes and coordinates activities (i.e. conference, seminar, roundtable discussion) with policy and decision-makers, and stakeholders to influence and shape public policies especially those related to the SDGs. The largest academic event by the Center is its Annual Conference on Sustainable Development. Here, researchers, practitioners, and decision makers around the world take part in knowledge sharing. Besides, in 2019, Center team members participated in more than 30 international and national academic

events, including the Association of Commonwealth Universities (ACU) Conference in Bristol, UK, and Future Oceans2 IMBeR Open Science Conference in 2019.

Community Outreach

CSD-ULAB promotes sustainable development in their surrounding communities and beyond. This effort includes student internship, service-learning, community awareness and capacity building initiatives, and faculty research. Nowadays, service-learning is considered as an effective pedagogical method for integrating sustainability into classwork. CSD is determined to maintain long-term and sustainable strategic partnerships to bring academic institutes, governments and the communities they serve together in addressing pressing challenges and transforming societies. In 2018 and 2019, the Center organized several plastic pollution awareness campaigns, waste cleaning activities, and training for recycling and waste minimization.

Five years into the SDG discussion, still a lot more effort to make in translating research into actions and policies worldwide. CSD as an organization always play an important role, not only in data collection and monitoring of SDG progress, but also academic and community outreach to help to shape better policies and actions in the support of SDGs. The Center aims to highlight universities changing roles in achieving the SDGs and their unique position for making impact. In parallel, governments and other partners need to acknowledge the role of research, data and knowledge in informing the SDGs, and the potential of academia to integrate different evidence ecosystems and disciplines for successful implementation of the SDGs.

Dr. Rumana Sultana
Assistant Professor cum Research Associate
Center for Sustainable Development
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UNIVERSITIES FOR SUSTAINABILITY: RESPONSE AND RESPONSIBILITY



Zoe Robinson

For many years, a few dedicated people in universities around the world have been focusing their energies on how our higher education system can contribute to a more sustainable future rather than just perpetuating the unsustainable practices of the society in which our universities are embedded. This is the field of Education for Sustainable Development (ESD), often misunderstood and maligned as being about just educating students on how to be more sustainable, and hence promoting particular political ideologies. In fact, critical thinking as well as action underpins the field, critiquing the very systems in which our higher education sits, advocating for the systemic change needed to achieve a more sustainable future, as well as embracing practice and action within our institutions to 'be the change that we want to see'.

After a background in physical geography and geology, I have spent most of my 15 years working in higher education, working in the field of Education for Sustainable Development, a move stimulated by a concern over our preparation of students to be able and motivated to contribute to a more sustainable future. Those of us working in this field have often felt on the fringes, trying to convince others that sustainability is a critical agenda for everyone in universities as well

as wider society to engage with. But the last twelve months have seen a shift and with it for me, a sense of excitement is in the air. Suddenly everyone is talking about sustainability issues and climate change. The last few months have seen the language we use change, we now talk of a climate emergency, not just an abstract notion of climate change. There is a sense of urgency and action, as more and more organisations and universities declare a climate emergency, with commitments to radical (and necessary) greenhouse gas reduction targets.

Beyond the climate and ecological emergency that we face, universities need to be part of other positive sustainable transformations, from addressing workers' rights through their procurement supply chains, to waste management and resource efficiency. Universities can, and should, have a major impact on achieving a more sustainable society and future: through leadership of the sustainability agenda; as role models of institutional sustainability; as trusted brokers able to bring together different actors and stakeholders; through their own estates and operations; through their research and through their education. Universities have influence at the local as well as global scale, with research networks operating globally, students having global influence. Universities have a responsibility to

OPINION

make a positive difference, and those of us working at universities have a responsibility to question whether what we do will make a difference, and to choose to use our resources in those areas for societal benefit.

The size and potential influence of universities on the sustainability agenda is vast, and in no way more than through our students. Yet David Orr, reminds us that education is not automatically ‘the answer’. He writes:

“It is worth noting that (the destruction of the planet) is not the work of ignorant people. Rather it is largely the results of work by people with BAs, BScs, LLBs, MBAs, and PhDs ... Education can equip people to be more effective vandals of the earth. If one listens carefully, it may even be possible to hear the Creation groan every year in late May when another batch of smart, degree-holding, but ecologically illiterate, *Homo sapiens* who are eager to succeed are launched into the biosphere.” David Orr, 1991

There are over 200 million students globally. Imagine if by embedding sustainability as a core part of our education system, if all these students, our future leaders, graduated with sustainability a key lens through which they view their decisions and actions throughout their professional and personal lives.

Education for Sustainable Development can take place in many different forms. The most obvious is through the formal curriculum - what and how we teach. We need to ensure that sustainability is embedded as a core element into every discipline. This should ideally be taught by the subject experts, meaning a lot of staff development work, to help existing teaching staff understand the links to sustainability and their discipline area. Whatever the subject area, the links will be there! But Education for Sustainable Development can also take place through the co- (or extra-) curriculum in the opportunities that we provide for students, and the hidden, or subliminal, curriculum, in the learning that occurs from the environment in which students (and staff) live, work, and study. The spectrum of Education for Sustainable Development is vast, going far beyond the environmental issues it is often seen as synonymous

with. The breadth of ESD is encapsulated in one of the targets of the UN’s Sustainable Development Goals, by 2030 to “ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture’s contribution to sustainable development.”

Education for Sustainable Development lends itself to action. Becoming deeply cognisant of the sustainable issues that our society and ecosystems face, students want to take action, and in my experience have often spear-headed new sustainability initiatives within the university. At Keele University in the UK where I work, students on our BSc in Environment and Sustainability decided that they wanted the opportunity to live more sustainably than they felt standard university accommodation allowed. They lobbied the university to be allowed to turn a small four-person property on the campus into an exemplar of sustainable student living and eight years ago the Sustainable Student Bungalow was born! Since then four new students have lived in it every year, exploring sustainable living, growing their own vegetables, and helping other students learn about more sustainable lifestyles. We could call this ‘activist learning’ – as through extra-curriculum projects such as these students learn key skills to become change agents for the future. Such projects provide the space for students to experiment as well as to fail, providing powerful conditions for learning about enacting change.

Education for Sustainable Development allows us to link between different agendas and priorities within the university, including research, community and business engagement, as well as the operations and estate of the university itself. Many universities are like small towns, with shops, offices, laboratories, recreation and catering facilities, and a range of housing types and transport links. Universities can therefore act as amazing test beds to trial sustainable solutions, with

avenues for research and student engagement, as well as links to business and the local community. As part of such test bed, or 'living lab' developments the potential

“ Universities have a responsibility to make a positive difference, and those of us working at universities have a responsibility to question whether what we do will make a difference, and to choose to use our resources in those areas for societal benefit ”

for solutions to be scaled up or replicated should be investigated, and dissemination beyond the campus boundaries to policy makers and key decision makers should be key.

At Keele University, our large campus of over 600 acres, and private utilities infrastructure has allowed us to develop, with European Union and Government funding, Europe's largest 'Smart Energy Network Demonstrator.' This is turning the campus into a test bed to explore, in partnership with businesses, new systems and models of managing energy in a 'smart' way, and contributing to our carbon emissions reductions. Linked to this we are in the process of establishing on our campus over 7 MW of renewable energy generation through a solar farm and two wind turbines which will produce up to 80% of the university's electricity. We are also hosting the first UK trial of blending low-carbon hydrogen into the gas grid to decarbonise heat, as part of a wider HyDeploy national project led by two of the UK's major gas distribution companies. All of these projects provide opportunities to bring together education, research, and business and community engagement, alongside exploring new paradigms for energy generation and management.

In order to achieve the potential of universities in achieving a more sustainable future, much comes down to issues of governance. Climate change and other sustainability issues have never been higher up the political agenda. Now is the time for universities to take up the baton of responsibility to 'be the change that we want to see.' Our universities need top-level commitment to the climate and ecological emergency that sees these issues as a key part of decision making at every level, and the responsibility of everybody to drive positive change in their own spheres of influence. Now is a time to be bold and to take action. In the words of the Chair of the UK's Climate Change Commission, a government advisory body:

“The science demands it; the evidence is before you; we must start at once; there is no time to lose.”

Dr. Zoe Robinson
Professor of Sustainability in Higher Education, Keele University, UK

CSD CONFERENCE 2019



Closing Ceremony of CSD Conference 2019

THE 4TH ANNUAL CSD CONFERENCE ON SUSTAINABLE DEVELOPMENT

The 4th Annual CSD Conference on Sustainable Development was held on 18-19 October 2019. The focus of this year's conference was on unpacking some of the key issues, including climate action, gender equality, urban resilience, and coastal development that pose challenges in achieving sustainability. Sustainability issues are not something we can ignore anymore and the best way to promote it is by sharing the problems we are facing right now and their possible solutions with the right audience. The best way to approach this endeavor is to bring academicians, practitioners, and policy and decision-makers across the globe together to have a constructive discussion with an audience that is not only capable of understanding the issues, but proactively able to do something to fix them.

That is exactly what the conference managed to do.

This year more than two hundred participants, including delegates from six different countries, national academicians, policy-makers, researchers and students attended this conference. Amongst the distinguished guests Mr. Md. Abul Kalam Azad, Prime Minister's Office, Government of the People's Republic of Bangladesh, was the chief guest of the inaugural session and Dr. Vally Koubi, Professor, ETH Zurich and University of Bern Switzerland was the inaugural keynote speaker. Ms. Habibun Nahar, Honourable Deputy Minister, Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh, was the closing ceremony chief guest and Ms. Mia Seppo, UN Resident Coordinator, United



Panelists of the session on Circular Design and Sustainability

Nations Development Programme, was the special guest. Dr. Zoe Robinson, Professor of Sustainability in Higher Education, Director of Education for Sustainability, Keele University, United Kingdom, delivered the keynote speech in the closing ceremony.

Two panel sessions on SDG 13 targets and Circular Design, four paper sessions on Gender equality, Energy supporting livable cities, Resilience, and Making cities truly livable and one roundtable discussion on Pro-poor technology for coastal development were organized. Dr. Saleemul Huq, Director, International Centre for Climate Change and Development (ICCCAD) moderated the panel session on SDG 13 and Dr. John Hummel, Team Leader/ Consultant in Tourism and Sustainable Development, moderated Circular design session. Taking points and agendas from the conference and each of the conference sessions are listed below:

Talking points and Agendas

- This year around the sessions were smaller focusing on quality over quantity. As well as the previous year the SDG was the main topic of the conference and the policies to achieve them.
- The need for both the public and private sectors

to work together to tackle climate change

- Sustainability must work as a democracy where everyone should have a say in it as everyone is a stakeholder when it comes to climate change.
- Sustainability concerns need to be shared with the students as they are the innovators and inheritors of the earth.
- There is a direct co-relation with countries that perform well in the SDG with the amount of government follow up.
- MDG legacy and the improvements SDG made to better tackle climate change.
- Bangladesh suffers from environmental migration due to the increased frequency and devastation from food shortage and floods.
- 1.3 Trillion USD in damages caused by storms annually, a direct impact of climate change.
- The danger fishing communities around coastal areas face across the globe due to rising sea levels and increased salinity; a problem that plagues Bangladesh.
- The increase in global conflict is related to scarce resources due to climate change, but again overshadowed by other factors like



Panelists and moderator of the session on the SDG 13

political agenda.

- Urbanites predisposition to environmental migrants is different from economic migrants, which should not be the case as both are currently one and the same.
- Urbanites willingness to accept shock migrants over long-term environmental migrants.
- ‘Resilience Thinking’ could help tackle the permanent loop of ecological migrants by better understanding the number of underlying factors that play in the decision to migrate.

Panel Session: SDG 13 – What Data Do We Need to Fulfil the SDG 13 Targets?

The session focused on the problems in gathering and sharing data essential for fulfilling SDG 13 targets, and their possible solutions in Bangladesh.

The major issues were in the organisation of the data collected. Disorganised data is hindering research,

growth and solutions, thus an optimised structure must be implemented for current and future data.

- SDG 13 or climate issues are a problem that will affect the younger generation more so the involvement of students will greatly increase data collection and bring more awareness to the cause.
- Data on minorities should be prioritised because they have the highest vulnerability when it comes to not receiving the proper disaster funds and disaster rehabilitation programs.
- Bangladesh Bureau of Statistics must work with NGOs to integrate their collective data and knowledge, thus becoming a proper hub for raw accurate data.
- The relief funds flowing into Bangladesh cannot be properly distributed due to a lack of data. Much of the loans and resources from foreign aid are being wasted by not reaching people at the right time.



Chair, moderator and guests of the session on Urban Liveability

Paper Sessions: Innovation in Sustainable Energy Supporting Livable Cities and How to Make Cities Truly Livable

- For cities to be livable in the future keeping harmony with nature and sustainable energy sources needed to be adopted.
- Rajshahi city in north Bengal has taken innovation as its solution to sustainability in the form of electric rickshaws, also locally known as ‘battery autos’. These modes of transport have created many jobs opportunities. The vehicles are energy efficient making them a far better alternative to conventional transport.
- However, the batteries that run most modern energy-efficient transport tend to have severe hidden ecological cost. Carbon emission from these batteries produced in china amounts to thousands of tons of CO₂ per year. The long-term effects of these batteries and their cost-benefit are not completely realized yet.
- Implementing solar energy to supplement and eventually replace conventional fossil fuel power plants is the ultimate goal for sustainable energy. Preventing this goal from becoming a reality is the significant initial capital investment needed to implement solar panel, especially since financial support from the government is not adequate.
- Sustainable urban planning with the nature-based solution and re-naturing is important to tackle lower liveability. Nature-based solutions combine human ingenuity and natural ecosystem services that create a living system to reduce the negative impacts of environmental change
- Waste should be kept at zero levels using recycling, reusing and reducing wastes.
- Using Green Finance to fix the infrastructural problems of Dhaka city is a daunting task. Unplanned slums, open landfills and the congested building has made Dhaka city extremely susceptible to ecological shocks like water-logging during the rainy season. Not to mention the ever-present traffic gridlock the city seems to suffer from.

CSD CONFERENCE 2019



Mr. Md. Abul Kalam Azad, Principal Coordinator (SDG Affairs)



Ms. Habibun Nahar, MP, Honourable Deputy Minister, MoEFCC



Dr. Zoe Robinson, Professor, Keele University, UK



Dr. Kazi Anis Ahmed, Vice President, BoT, ULAB



Dr. Vally Koubi, Senior Scientist, ETH Zurich and Professor University of Bern



Professor Imran Rahman, Special Advisor to BoT, ULAB



Dr. Samiya Selim, Conference Convener and Director, CSD, ULAB



Professor Dr. H. M. Jahurul Haque, Vice Chancellor, ULAB

Paper Session: Embedding Gender Equality in Climate Action

Gender issues are rather complex to handle and are prone to falling to the wayside, but integrating them with climate action we could kill two birds with one stone.

- Women using social capital to renegotiate their social and political standing in Bangladesh by leveraging their contributions to the society.
- Postcolonial Bangladeshi women face adversity far greater compared to what women face in



Mr. Kazi Nabil Ahmed, MP, Member, BoT, ULAB

the global north. The situation is not dire as women are taking back power through incremental changes rather than revolutionary tactics. Women are now being incorporated in state and society something they were denied earlier.

- Coastal areas in Bangladesh like Satkhira suffer the greatest from climate change and forced migration is unavoidable. However, the migration is exclusive to the men who go to larger cities for work while the women are left behind to fend for themselves. These have led to women

in the Satkhira area to have more agency in their lives and are the primary decision-makers,



Discussants in action at the Climate Resilience and Mobility Session

something that was not possible with normal patriarchal hierarchy. NGOs played a major role in lighting the way for these women to establish their rights regarding this matter.

- Garo culture and customs are being undermined the mainstream culture of Bangladesh. Garo culture, a matriarchal society, faces exclusion from local laws and micro-politics due to gender issue. All throughout recent history in Bangladesh men dominated these discussions and excluded the Garo women. Their lack of participation denied them knowledge of local laws and thus was taken advantage of; further damaging women role in leadership positions. However, there has been a resurgence of women empowerment in *Garo* culture as the women have taken up teaching roles in local schools.
- Women take a leading role in raising future generations of citizens. Often, they are side-lined in studies relating to climate-adaptive practices. Bangladesh has women in senior business and government posts yet their decision making more often than not

negatively affect women empowerment and this issue needs to be addressed.

Panel Session: Circular Design – How do we create Sustainable Institutes?

The solution to sustainability issue lies with a circular economy and a team of expert panelists delve into the issue based on their own experience.

- The conventional economy is extremely wasteful and circular economy is not only capable of reducing waste significantly, but also become much more profitable in the long run.
- Circular supply chains use the waste material to reproduce consumer goods creating a restorative and regenerative economy.
- Another approach to this waste management in the economy is to by removing the waste from forming in the first place by implementing alternative processes.
- Reimagining waste manage through lateral thinking is the way forward because waste is only waste if we do not find a use for it.
- Bangladesh currently suffers from a major problem regarding plastic waste, mainly from

CSD CONFERENCE 2019

polyethylene terephthalate (PET) bottles. Around 85% of all these plastic bottles are used only once before being dumped into landfills. Recycling them should take precedence.

- There is a glaring lack of tax incentives to promote recycling and is the prime reason for the wasteful linear economy that dominates the country.
- There is a lack of food sharing apps in the country that could redistribute perishable food from restaurants. However, student-led organisations do collect excess food from wedding ceremonies and give them to the poor.

Roundtable Discussion: Pro-Poor Coastal Development

This roundtable discussion focused on equity and pro-poor technology for coastal development.

- Locally available species which are well-adapted to local conditions can be one pre-condition for aqua-culture.
- Net-mapping for aqua-culture development, deep leverage points for aqua-culture.
- Development of Innovative Farming Systems creating an opportunity for growing non-rice crops in saline water. Irrigated boro rice being cultivated.
- Community-based adaptation being demonstrated for the cultivation of integrated rice, shrimp, and other crops depending on salinity levels and seasons. The aquaculture and agricultural farming system can be diversified which can increase the overall productivity.
- Multi-tropic level aqua-culture being used by some farmers, especially in the freshwater. This will enhance the livelihood of poor people.
- Since our environmental condition is changing, so our technology also has to be changed. Have to concentrate on making self-sustainable innovative systems so that the technology can be re-innovated as per the changing environment.

Students in Action

A student-focussed workshop dedicated to understanding student's role in the community and activism in sustainability.

- Promoting sustainability through engaging students in recycling. A pilot project in the satellite university towns in the UK were the students clean up the city of waste.
- The knee-jerk reaction to corruption, especially in sustainability projects, can be extremely detrimental to the cause as it undermines everything the SDGs stand for.
- The exponential increase in plastic waste in Bangladesh is no longer sustainable and alternate waste management needs to be implemented. Currently, the majority of plastic waste ends up in landfills and recycling cannot keep up with the waste production. However, students as consumers can punish the brands for using the plastic product by boycotting them.
- Landfill themselves are creating extremely concentrated liquid waste that is extremely hard to recycle. These toxic liquid sips into the groundwater and is giving rise to severe health risk to the residents of Dhaka city.
- Workshop on promoting critical thinking regarding waste management to end the session. The goals of the participants were to create sustainable waste recycling plans for universities, businesses and institutions.

Acknowledgement

The 4th Annual CSD Conference on Sustainable Development 2019 was hosted by ULAB in conjunction with international and local sponsors and partners. We would like to once again extend our gratitude and thanks to Keele University, ActionAid, WaterAid, Bengal Forum, Gobeshona, ICCCAD, Oxfam, Swiss Federal Institute of Technology Zurich (ETH), Leibniz Center for Tropical Marine Ecology (ZMT), and Green Delta Insurance Company Limited for their valuable support to this Conference.



A PLASTIC WASTE MANAGEMENT INITIATIVE - SOLID WASTE SEGREGATION BINS AT ULAB



Segregated bin at ULAB campus

Plastic was invented roughly 100 years ago and drastically changed our world. Today almost everything is at least partly made from plastic. However, this wonder of technology got a little out of hand. Plastic is made from a substance called “polymers” which are so durable that they take 500 to 1,000 years to break down. Globally, 300 million tons of plastic is produced every year from which sadly half of the amount of plastic stays on the planet and 8 million tons of plastic is dumped into the ocean each year. According to the prediction made by the Ellen MacArthur Foundation and the World Economic Forum, in a report called The New Plastics Economy “the number of plastics will outweigh all the marine animals in the ocean by 2050”. The per capita consumption of plastic in Bangladesh is 5kg per year which creates and inscrutable wastage. When thrown in water, plastic clogs the ponds, rivers, oceans and the

drainage systems. Such blocking has been identified as a major cause of water-logging in Bangladesh during monsoon season. According to Waste Concern that promotes waste recycling, “a total of 821,250 tons of plastic waste were generated in urban hubs of Bangladesh a year while some 207,685 tons were dumped in marine environment annually” in February 2019. In Dhaka city, about 14 million pieces of polybags are thrown out every day, often ending up in rivers, oceans and the drainage systems causing hazards to marine life. It has invaded the animals we eat and now it is finding its way to our bodies.

Taking adverse scenario of plastic pollution into account, for the first time ever in Bangladesh- University of Liberal Arts Bangladesh (ULAB) in collaboration with Bangladesh Petrochemical Company Ltd. (BPCL) has taken one initiative which is being implemented at ULAB. Both the parties united in an attempt to help

GOAL 12: SUSTAINABLE CONSUMPTION AND PRODUCTION

the environment stay clean, make waste management easier and to help reduce the harmful effects of plastics.

ULAB inaugurated introducing “Segregated Bins” on 14th October 2019. These bins were installed after following consequence of several cleaning activities that has been conducted in ULAB’s own premises. The importance of such Segregated Bins has been addressed after the waste audit sessions of these cleaning activities and BPCL has come forward with the opportunity to install such Segregated Bins in ULAB campuses’ premises in collaboration with Center for Sustainable Development (CSD). The wastage from the Segregated Bins such as PET/HDPE bottles are collected by the BPCL, taken to their factories, recycled and then turned into raw materials which are used for the production of other plastic bottles.

An audit is always being conducted at ULAB each

week to see how much solid wastes are being collected each week from these Segregated Bins. According to the data from the last week of November, 41kg of plastic waste was collected. The 41kg of plastic wastes that could become debris and mix with the soil creating uncountable health impacts and environmental hazards were now being recycled. Moreover, ULAB has another agreement with Bashundhara Paper Mills Ltd. As part of this agreement we send all the waste paper to them and they recycle it. ULAB buys all of its necessary paper from the Bashundhara Paper Mills which indicates that the recycled papers are being used by ULAB. This “Greening” initiative not only makes the process of waste management easier and helps create a cleaner environment, but it also creates an essence of awareness among the respective faculties, students, administration, and the other staff member of ULAB.

A SIGNING CEREMONY OF THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN KEELE UNIVERSITY AND ULAB

Keele University, UK and University of Liberal Arts Bangladesh (ULAB) signed a Memorandum of Understanding (MoU) in April 2019 at the ULAB permanent campus in Ramchardrapur, Mohammadpur. The aim of the signing is to develop opportunities for joint research between ULAB’s Center for Sustainable Development (CSD) and Keele University, to apply for grants which would make a further impact on the SDGs, and the creation of student and faculty exchange programs at both institutions.

Founded in 1949 by A.D. Lindsay, former Vice-Chancellor of the University of Oxford, Keele has always been different from other universities. Keele University is helping to change the world for the better by engaging in cutting-edge research. They are tackling some of society’s most urgent challenges,



including ageing, global health, and renewable energy.

Keele University strives to embed sustainability across all their activities, spanning their research, education, business processes, campus and community, as well as for their external engagement with partners and business. Keele University looked to partner with CSD-ULAB because it is one of the leading research centres in Bangladesh tackling sustainable development research and actively working on the SDGs and researching issues related to them.



**ACU BLUE CHARTER
FELLOWSHIP 2019**

ACU Blue Charter Fellowships help to tackle marine pollution by supporting world-class research in marine plastics. The fellowships, generously funded by Waitrose & Partners, form part of the Commonwealth Marine Plastics Research & Innovation Framework. This year, ten emerging researchers from different countries have been awarded fellowships at top Commonwealth universities to explore innovative ways to tackle plastic litter in the ocean. One of the focuses of this fellowship is developing alternatives to plastics. Our CSD faculty, Dr. Shantanu Kumar Saha, is one among the ten researchers and he is only one from Bangladesh this time got this fellowship. A research grants of £14,000 have been awarded to him to do research at Keele University, UK. During the ACU fellowship at Keele University, Dr. Shantanu wishes to carryout research on alternative to plastics using bio degradable material. The focus of this research will be on reviewing the current status & knowledge about the sustainable cutlery and crockery products. Further, this research wish to produce a cost effective cutlery, crockery from coconut husk as well explore the market demand for this product as well. The research team will try to reach to the policy makers with feasible recommendation for developing a policy for sustainable cutlery, and crockery use in Bangladesh.

DEVELOPMENT OF MATERIALS FROM WASTE COCONUT HUSK FOR USE IN NEW PRODUCTS AS ALTERNATIVES TO SINGLE-USE PLASTICS

Shantanu Kumar Saha

Plastic is designed to last for a very long time and nearly all the plastic ever created still exists in some form today. A recent research from the University of California says, the calculated amount of plastic waste that has been generated till now is approximately 8.3bn tons. If current production and waste management trends continue, roughly 12bn tons of plastic waste will be in landfills by 2050. In the last few years, production and consumption of various plastic products have been extended from households to industrial purposes, which mean the range of plastic waste has also increased. It is being noticed that the

production of single use plastic has increased in recent time due to changes in consumption patterns and packaging system. The shops are serving foods in plastic items. This is creating a huge challenge in terms of waste management and plastic pollution. In this context, this research aims to analyze alternatives to plastic takeaway cutlery, crockery from coconut husk. The focus of this research will be on reviewing the current status and knowledge about the sustainable cutlery and crockery products. Further, this research wishes to produce a cost effective cutlery, crockery from coconut husk and explore the market demand for this product as well.

GOAL 12: SUSTAINABLE CONSUMPTION AND PRODUCTION



CSD faculty working at Keele University

Finally, the research team will try to reach to the policy makers with feasible recommendation for developing a policy for sustainable cutlery, crockery use in Bangladesh to reduce the use of plastic use.

This proposed research is a collaborative work funded by the ACU Blue Charter Fellowship where Dr. Shantanu Kumar Saha will be working with Dr Sharon George, Dr Deirdre McKay, and the technical staff at Keele University to develop a cost effective cutlery, crockery from coconut husk. ACU Blue Charter Fellowships mainly help to tackle marine pollution by supporting world-class research in marine plastics. The fellowships, generously funded by Waitrose & Partners, form part of the Commonwealth Marine Plastics Research & Innovation Framework. This year, ten emerging researchers from around the world have been awarded fellowships at ACU member universities across the Commonwealth. One of the focuses of this fellowship is developing alternatives to plastics. 'Development of materials from waste coconut husk for use in new products as alternatives to single-use plastics' is one among the ten researches and the only one from Bangladesh got selected for this fellowship. A research grants of £14,000 have been awarded to do

this research at Keele University, UK.

Since this research project aims to develop a sustainable alternative to plastic i.e. cutlery, crockery from coconut husk as well as create greater awareness and public understanding of negative impact of single-use plastics cutlery, crockery; it is certain that the research project will definitely contribute to the Commonwealth Blue Charter and fulfil the objectives of the Commonwealth Marine Plastics Research & Innovation Framework (MPRIF) because it will cover the broad area of marine plastics, specifically the "developing alternatives to plastics" priority areas of the MPRIF. The research will investigate gaps that exist in education, skills and awareness around single-use plastics cutlery, crockery. It is expected that the research findings will help to create awareness about alternative to plastic use which will eventually increase civic engagement to preserving and nurturing the world's oceans from plastic pollution.

Dr. Shantanu Kumar Saha
Assistant Professor cum Research Associate
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Group presentation during the workshop at a government primary school

AWARENESS RAISING WORKSHOP ON BEATING PLASTIC POLLUTION

While plastic has many valuable uses, we have become addicted to single-use or disposable plastic which have severe environmental consequences. Globally, one million plastic bottles are purchased every minute. Around 8 million metric tons of plastics go into the oceans every year. Over 46,000 pieces of plastics are found in one square mile of ocean. The global production and consumption of plastics have continued to rise and it is estimated that by 2050, there will be more plastics than fishes in the world's oceans. Bangladesh currently faces the worst case scenario of sea pollution due to plastic. Moreover, Plastic bags were found to be the most common type of litter. Bangladesh experienced floods in urban areas in 1998 and 2008 where polythene and plastic materials were one of the major causes for the blockage of the drainage systems.

Therefore, managing plastic waste is increasingly becoming a global environmental and economic challenge. However, collective actions in behavioral change may lessen the problem significantly. In regards

to this, active engagement is an important factor to the success of any behavioral changes. Powerful tools such as workshop, group work and campaign work as effective engagement plan. Investing in such activities helps to bring confidence and motivation to citizens. In this context a group of ULAB students successfully conducted a knowledge sharing and awareness raising workshop for underprivileged children on reducing plastic pollution in collaboration with Teach for Bangladesh.

As part of this, a waste audit was conducted in different locations of the Uttara area to identify what types of plastic materials are generated and how much of each type of plastic can be or cannot be recovered for recycling.

Afterward, students had a knowledge sharing session with those underprivileged students in which they shared how these throw away plastics are deteriorating our environment. Finally, the participants learnt different techniques of reusing plastic wastes i.e. plastic bottles and PVC banners. Students also discussed about the recycling process of plastic bottles.



A SIGNING CEREMONY OF THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN BANGLADESH PETROCHEMICAL COMPANY LIMITED AND ULAB

In 30th July, 2019 MoU has been signed between Bangladesh Petrochemical Company Limited-BPCL and University of Liberal Arts of Bangladesh to promote youth and encourage the much-needed awareness for best solid waste management practices and lifestyles for enhancing the prospects of responsible consumption, establish well organized separate bins for segregating different types of solid waste in different places of the campus and

collection point for PET bottles, promote recycling in root-level and preparing social and environmental impact report. The Vice Chancellor of ULAB Professor Dr. H. M. Jahirul Haque, Professor Imran Rahman, Special Advisor to the Board of Trustees, ULAB, Dr. Samiya A Selim, Associate Professor and Director, Center for Sustainable Development and Khadem Mahmud Yusuf, MD & CEO, BPCL were present in this signing ceremony.



ULAB students visiting BPCL factory with CSD faculties

ULAB STUDENTS VISITED THE FACTORY OF BANGLADESH PETROCHEMICAL COMPANY LIMITED (BPCL)

On December 2019, a group of ULAB students from the course Introduction to Sustainable Development has visited the factory of Bangladesh Petrochemical Company Limited – BPCL in Narayanganj. The company is operating in Bangladesh as the first and only post-consumer PET bottle recycling factory capable of producing 10,000 MT of recycled Pet product per year using discarded PET bottles as raw materials. Based on the collaboration with the Center for Sustainable Development (CSD), BPCLs has also set up bottle points

across the University of Liberal Arts Bangladesh campus area which also enables waste collectors by skipping the middleman and *Bhangari* shops, and bringing stability in the supply chain of waste collection and processing.



GOAL 12: SUSTAINABLE CONSUMPTION AND PRODUCTION



SEMINAR ON “VOICE AND SOLUTION - ACHIEVING GROWTH THROUGH SUSTAINABLE PRODUCTION AND CONSUMPTION IN THE FASHION INDUSTRY IN BANGLADESH”

SEMINAR

University of Liberal Arts Bangladesh was one of the joint organizers of a seminar styled “Voice and Solution - Achieving Growth through Sustainable Production and Consumption in the Fashion Industry in Bangladesh” at BRAC center Dhaka on 20th April 2019, along with ActionAid Bangladesh, Fashion Revolution and Monokrome. Dhaka North City Corporation Mayor Atiqul Islam; ActionAid country director Farah Kabir,

Fashion Revolution country coordinator Nawshin Kabir and Professor Imran Rahman, Special Advisor to the ULAB Board of Trustees were present at the seminar as expert panelists.



BASELINE STUDY ON KNOWLEDGE, ATTITUDES, AND PRACTICES (KAP) REGARDING SOLID WASTE MANAGEMENT OF STUDENTS OF ULAB

Shantanu Kumar Saha

Improper disposal of waste without proper management is creating environmental and health problems. If we dump garbage here and there it pollutes the soil, water and air. Due to improper waste disposal, the drains get blocked which creates stagnant water and this works as a breeding ground for insects and diseases (Atienza, 2008). On the other hand, improper waste management is contributing to global climate change because a large amount of waste is being dumped for landfill which is releasing Methane (CH₄) to the atmosphere and it also creating serious health problem (Naidoo 2017). Studies found that “in spite of the increase in waste generation many people around the world are not even aware of the impact of their negative actions on the environment and even their health” (Bhutta et al. 2011; Department of Environmental Affairs 2011; McKay et al. 2015 cited in Olufemi, Ogbonnaya, Mji, & Mukhola, 2019). Research suggests that “practices of basic solid waste management (SWM) are often neglected at the individual level” (Licy et al., 2013 cited in Barloa, Lapie, & de la Cruz, 2016). But, public participation is one of the important elements of proper solid waste management.

In this context, the Center for Sustainable Development of ULAB initiated a baseline survey

to explore the Knowledge, Attitudes, and Practices (KAP) of SD minor Students¹ regarding Solid Waste Management (SWM). This is because “quite a number of studies have [reported] large volumes of wastes being generated from higher education institutions campuses on a daily basis (Ifegbesan et al. 2017; Tangwanichagapong et al. 2017; Zhang et al. 2011 cited in Olufemi, Ogbonnaya, Mji, & Mukhola, 2019). And, “students are particularly targeted [because] they are regarded as the future of the nation and schools are expected to develop their potential as advocates of sustainable environment” (Ahmad et al., 2015 cited in Barloa, Lapie, & de la Cruz, 2016). Since “the use of KAP survey is an emerging popular method to assess community psychology and practices related to environmental issues” (cited in Barloa, Lapie, & de la Cruz, 2016) this study uses a KAP survey through a cross-sectional research design to capture the knowledge, attitude, and practices of the SD minor students of ULAB undergraduate program regarding solid waste management and recycling.

An online questionnaire was developed to conduct the survey. The survey was conducted at the beginning of Fall 2019 semester. The Fall 2019 was chosen to conduct this baseline survey because ULAB has installed some segregated bins in its campus premises in

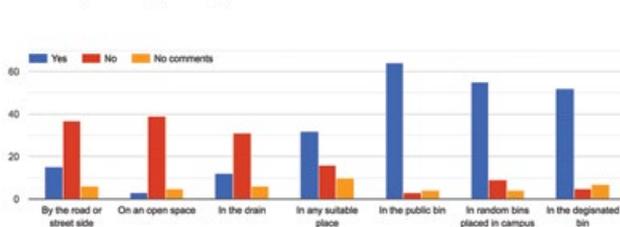
¹ Since 2018, CSD is offering its up-to-date Minor in Sustainable Development Studies (SDS) to the students of ULAB. The minor consists of 8 diverse courses. The aim of this minor is to help students to make well-informed contributions regarding the sustainable development issues. To get a minor in SDS students need to take 15 Credits.

GOAL 12: SUSTAINABLE CONSUMPTION AND PRODUCTION

Fall 2019 semester. The survey was conducted before the installation of bins with the aim that another survey will be conducted after the bins installation to see the changes. Students of all the SD minor courses (offered in the Fall 2019 semester) are asked to participate in the online survey. A google form (questionnaire) was created to share in the classes to conduct the survey. The questionnaire contains questions related to basic information as well as knowledge, attitude, and practice of SWM related questions. To write the report, all statistical analysis were performed in Microsoft Excel.

In all, a total number of 112 students, 45 (40.9%) who were males and 64 (58.2%) females participated in this study. Most of the students (71.8%) were from BBA department. While answering the questionnaire 53 (47.7 %) student mentioned that they already heard about solid waste management. Based on the responses,

Where do you usually put away your waste?

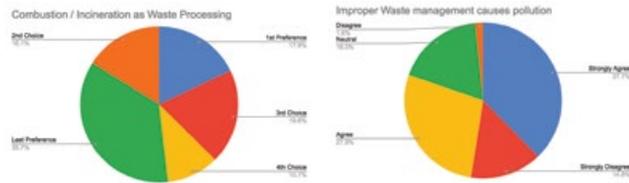


it is found that quite a good number of students prefer to throw their waste either into public bin or bins placed on campus or in the designated bins. The survey found that SD minor students have good knowledge on solid waste management because waste minimization got the highest hit as the 1st preference whereas waste combust got the highest hit as last option.

In terms of knowledge regarding the solid waste management, the ULAB SD minor students showed good knowledge about SWM because majority of the students were right in choosing the best option. For example, in response to the question regarding the combustion as waste processing, highest percentage of students considered it a their last preference. And, majority agreed (27.9%) or strongly agreed (37.7%) with the statement that improper

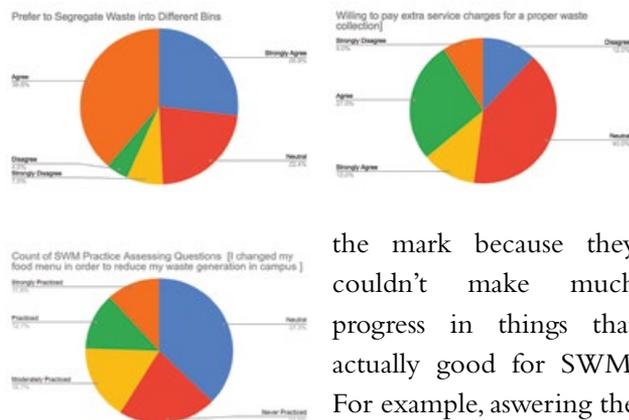
waste management causes pollution.

Further, the SD minor students showed very positive attitude towards solid waste management, in particular for waste segregation. 38.8% students chose



agreed and 26.9% students chose strongly agreed option as their preference to segregated waste into different bins. On the other hand, only 9% students strongly disagreed with the concept of paying extra service charges for proper waste collection which is a very good indicator as majority wants to pay.

However, in practice students are still not up to

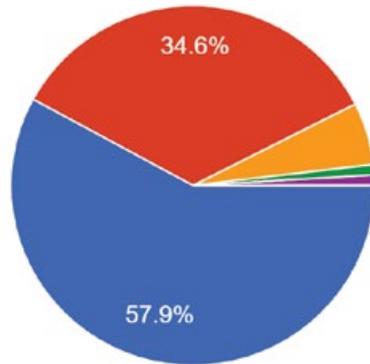


the mark because they couldn't make much progress in things that actually good for SWM. For example, aswering the question on if they have

made any changes in their food menu to reduce waste generation in campus, only 11.8% strongly agreed with the practice. In case of plastic use reduction, 57.9% students are still using plastic bags provided by the market and only few (34.6%) carry their own bags. Other studies also found that, "students exhibit moderate to unsatisfactory practice level on waste management" (Desa et al., 2011; Adeolu et al., 2014; Ahmad et al., 2015 cited in Barloa, Lapie, & de la Cruz, 2016) and suggested that "there is still need for the university to encourage students by creating more awareness and educating them on managing solid waste on campus" (Desa et al. 2012 cited in Olufemi,

What do you normally use to carry your shopping contents?

107 responses



- Plastic bags provided by the supermarket
- bring my own reusable bags
- I do not use any carrier (i.e. I carry the goods by hand)
- plastic, fabric or jute bags provided by the supermarket
- Either I use mine or use other material bags shops provide

Ogbonnaya, Mji, & Mukhola, 2019). The findings of this baseline survey also matched with the statement of other studies that university is the important source to educate students about SWM and create awareness (Olufemi, Ogbonnaya, Mji, & Mukhola, 2019) because in ULAB case it was noticed that the SD minor students mostly learned about the solid waste management from the ULAB class lectures. Therefore, we also believe that “students’ attitudes and practice [regarding SWM] may be improved by education and policy enforcement (Mdlozini 2015 cited in Olufemi, Ogbonnaya, Mji, & Mukhola, 2019). This on the other hand justifies the importance of courses related to sustainable development.

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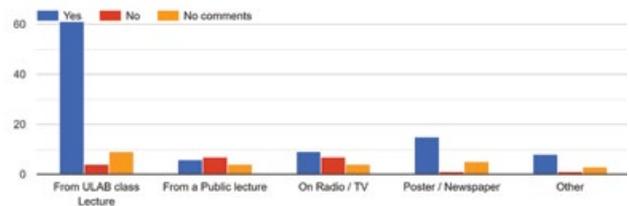
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14 LIFE BELOW WATER



GOAL 14: LIFE BELOW WATER



During fieldwork at Satkhira, January 2019

LEVERAGE POINTS FOR PRO-POOR LIVELIHOOD TRANSFORMATION IN COASTAL BANGLADESH

Samiya Selim and Marion Glaser

Coastal Bangladesh is highly vulnerable to anthropogenic salinity intrusion. New production systems need to replace the disappearing agricultural livelihoods of up to 20 million coastal people. Integrated multi-trophic aquaculture (IMTA) is new to Bangladesh but connects to local knowledge. IMTA can mitigate the harmful ecological impacts of conventional aquaculture and possesses transformative potential for the poor who bear the costs of environmental change. Collaborative innovation development in brackish water aquaculture (BWA) through which poor men and women increase their opportunity space as “experts and experimenters” is needed. So far, aquaculture development has achieved little along these lines. Since 2017, CSD has been

working with Dr Marion Glaser, ZMT Leibniz Centre for Tropical Marine Research as well as social and natural scientists from Bangladesh and Germany in dialogue with ministerial, business and NGO representatives are preparing an initiative to enable poor coastal men and women to co-develop innovative, ecosystem-based BWA (i.e. IMTA and related options). We envisage an Innovation Systems Approach in which multiple stakeholders collaborate in extending opportunity spaces with and for those least successful within conventional transfer of technology models. Social innovation beyond technology and the establishment of “countervailing powers” among poor and marginal coastal residents are likely to be essential to enable economically viable, socially equitable and ecologically

sustainable transformative innovation through co-developing innovative aquaculture ideas in ways that include those most affected by environmental change.

In January 2019 we conducted field research in Shyamnagar, Shatkhira where we did initial systems analysis and understanding of the main actors in aquaculture and community development and how they are linked. The aim was to find out what are the most important changes and interventions needed for developing sustainable coastal livelihoods. We used Social Network Analysis, specifically Netmapping, as a tool to capture the varying viewpoints of different stakeholders – academics and researchers working on aquaculture and fisheries, different NGOs working on livelihoods in coastal Bangladesh, government – Bangladesh Fisheries Research Institute and Ministry of Fisheries, and communities – farmers, fisher folk, and landless/female headed households. The overarching research question was: What is needed to ecosystem-based aquaculture (IMTA) into a transformational force (ecologically, socially, economically) with clear benefits for the poorest? The research findings are now being written up for journal publication and funding is being sought for next steps on pilot project with communities living on khas land who might be able to

adopt IMTA as a sustainable livelihood option.

In October 2019 we organized a round table discussion on appropriate technical and social innovations needed for pro-poor innovation development in coastal Bangladesh. Specifically the session focused on innovations that can be developed and/or captured by those who have limited or no resources e.g. land. This session brought together academics from different universities and disciplines, NGOs, diverse government ministries and agencies as well as interested private sector actors. The common denominator was the desire to link and create synergies between our different types of involvement with pro-poor development. The findings of this workshop are also being written up and will be disseminated in 2020.

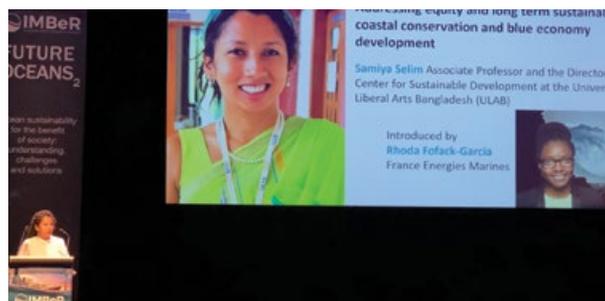
Dr. Samiya Selim
Associate Professor and Director
Center for Sustainable Development,
University of Liberal Arts Bangladesh

Dr. Marion Glaser
Leader of Social-Ecological System (SES)
Analysis, Leibniz Center for Tropical Marine
Ecology (ZMT), Bremen, Germany

KEYNOTE SPEECH AT THE FUTURE OCEANS2 IMBER OPEN SCIENCE CONFERENCE

The Future Oceans2 IMBeR Open Science Conference was held in June 2019 at Le Quartz Congress Centre in Brest, France. The aim of this conference was to provide an opportunity to join world leading researchers to present advances in science from all disciplines that contribute towards ocean sustainability for the benefit of society: understanding, challenges, and solutions.

The conference was based on three interlinked themes - Understanding and quantifying the state and variability of marine ecosystems; Improving scenarios, predictions and projections of future ocean-human systems at multiple scales; and Improving and achieving sustainable ocean governance.



Dr. Samiya Ahmed Selim, Director and Associate professor, Center for Sustainable Development (CSD) attended this conference as a keynote speaker.

The conference was a mixture of talks, posters, workshops, focus groups, world cafés, and other innovative formats to engage delegates.



GOAL 13: CLIMATE ACTION



Study site at Shyamnagar, Satkhira

ROLE OF INFORMATION, TECHNOLOGY AND OWNERSHIP IN INCREASING RESILIENCE TO ADDRESS CLIMATE INDUCED LOSS AND DAMAGE

Joy Bhowmik

Bangladesh is highly exposed to various extreme climatic events. Climate change induced natural climatic variations have increased the level of exposure and vulnerability to hazards. According to the global climate risk index for 2019, Bangladesh has been ranked ninth among the countries most affected by extreme weather events in 20 years since 1998. Increased extreme climatic events have potential to cause both economic and non economic loss and damage to local communities who are living in the disaster prone areas. The term “Losses” usually

mean monetary losses on the other hand “Damages” mean to cover non-monetary impacts as well as irreversible effects. The monetary value of damage is expressed in terms of replacement costs. Losses have both the monetary and non-monetary impacts. Loss of life, damages to houses and other assets, agricultural production, fisheries and cattle which have longer term economic effects are known as monetary loss. Whereas impacts such as loss of life, health, ecosystem and societal impacts including the irreversible damage such as coastal erosion are understood as non-economic loss.



During focus group discussion at Dimla, Nilphamari, October 2019

Poor people living in the disaster prone areas are highly exposed to these both types of impacts. Therefore, the discussion on loss and damage from extreme weather events indicates about the already occurred impacts and addressing mechanisms to avoid losses from the future expected impacts through increasing resilience. Extreme events related impacts should be addressed to ensure a safe life of those poor people.

Different types of tools are available to address exposure to loss and damage from medium and macro-level risks to longer term foreseeable risks. This study tries to explore how communities are increasing their resilience to address those risks. According to the UN International Strategy for Disaster Reduction, measures to address exposure to loss and damage could include pre disaster preparedness measures, risk reduction measures, emergency response measures and post disaster rehabilitation measures.

Better preparedness for changes in climate and extreme weather events may reduce the impacts on human life, their livelihoods and assets. In this context, comprehensive risk management approaches are best utilized to reduce the risk of extreme weather events

related impacts. This helps to take better precautions by modifying current coping and adaptation strategies, establishing new strategies, and reviewing existing policy to ensure sufficient funding options. In regards to this vulnerable communities receive specific training and ongoing advice to give them the knowledge and skills needed to combine and apply the risk management instruments e.g. capacity development, risk reduction, risk assessment, risk transfer, and social protection in a professional manner. This research focuses on different risk management approaches that have been applied in three different locations with the help of information and technology.

Now a day's various features of information and technology is helping to manage the disasters in easier way. Uses of appropriate information are crucial for effective disaster management. Information through mobile technology is probably the most rapidly expanding technology in terms of the speed of expansion and reach to the unconnected. The technology is mostly based on voice and short message service (SMS). After the 2004 Indian Ocean Tsunami, the Sri Lanka Disaster Management Centre (DMC)

GOAL 13: CLIMATE ACTION

developed an SMS-based early warning system for tsunami. After that, the DMC started sending tsunami alert via SMS to Tsunami warning for Sri Lanka north, east and south coast and suggest people move away from coast before hitting any disasters. Cell broadcasting (CB) is also used in disaster management system. CB is a one-to-many geographically focused messaging service, which means that messages can be tailored to multiple phone subscribers located within a given part of its network coverage area at the time the message is broadcast. CB has also been employed in higher income countries like Japan and the Republic of Korea to disseminate public warning for a number of years. Moreover, mobile application which is designed to run on smart phone is also being used in disaster management. Agri App is one of the most liked apps by farmers in India which helps them to get information on crops disease and advanced agricultural process. Thus, they improved their crop production.

Uses of internet are also spreading rapidly. Internet use in several countries like Vietnam and the Islamic Republic of Iran was limited. Half a decade ago below 10 percent population of these country used internet. However, it has expanded to one third and one quarter of their respective populations. Internet is now widely used in raising resilience to address causalities and damages. There are also online portals and communities that focus on knowledge sharing for longer-term recovery, preparedness and mitigation processes. Portals such as PreventionWeb, ReliefWeb, exchange ideas and experiences and advance the field of disaster management, including the sharing of good practices and lessons learned. Thus, information technology is changing every aspect of human life. It ensures the safe production, enhances the quality and effectiveness of trade, develop entrepreneurial skills, establish connectivity with social networks and improves other aspects of human life such as education, research, culture, entertainment, communication, national security, etc. Application of technology helps community to know the risk, including being aware of them and giving access to relevant information

to minimize the risks in a timely manner. ICT applications in disaster risk reduction approaches such as enhancing information management, forecasting, monitoring and building ownership and leadership in decision making can successfully reduce the avoidable loss and damage. The objective of this research is to validate the role of information in reducing extreme weather events related loss and damage through community perception. In doing this, an OXFAM funded project Participatory Research and Ownership with Technology Information and Change (PROTIC) has been selected to examine the role of information and technology in increasing resilience.

Based on 12 focus group discussions and 20 in-depth interviews, this research sought to understand the losses and damages experienced by the communities of Dimla, Shyamnagar and Tahirpur upazila and explore how information and technology helps to address those loss and damage through increasing resilience.

Primary data has been collected from the PROTIC sites. This project aims to enhance economic situation of the poor and marginalized groups who are vulnerable to extreme climatic events by providing information and knowledge through technology. Therefore, this research was undertaken to observe the aims of the project in light of comprehensive risk management approaches to address climate induced loss and damage. This research will exhibit the research finding in three ways. Firstly, it presents an overview of the people's perception about the different extreme events that are affecting their lives and livelihoods. Secondly, It tries to give an overview of the losses and damages from several extreme weather events which are also knows as sudden and slow onset events. Finally, the research will explore the role information and technology which are already implemented through PROTIC to reduce the avoidable losses and damages.

Joy Bhowmik
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Dr. Samiya Selim talking at the 'Coastal Zones' session as chair

PARTICIPATION IN GOBESHONA 5 CONFERENCE

Dr. Samiya Selim, Director, CSD-ULAB, chaired the “Coastal Zones” session during the Gobeshona 5 International Conference on Climate Knowledge in January 2019. Authors presented research on salinity and fish production, losses and gains of coastal land, and climate change adaptation policies. Dr. Selim wrapped up the session by addressing conflicts, possibilities, and adaptation opportunities in the coastal regions of Bangladesh.

Dr. Rumana Sultana, Assistant Professor, CSD-ULAB, presented during the “Ecosystem Resilience” session of Gobeshona 5 International Conference

on Climate Knowledge. Her exposition focused on subtropical coastal sediment ecosystems’ response to climatic stressors. The session ended up with a fruitful discussion on the potentiality of carbon sink in the shallow marine areas of Bangladesh.



Dr. Rumana Sultana presented at the 'Ecosystem Resilience' Session

GOAL 13: CLIMATE ACTION



CSD PARTICIPATION AT DHAKA LIT FEST SCIENCE: TRUTH IN THE AGE OF MAKE BELIEVE

Dr. Samiya Ahmed Selim, Director and Associate Professor, Center for Sustainable Development (CSD) along with Piers Bursill-Hall, Pranay Lal and Garga Chatterjee participated in the session ‘Science: Truth in the age of make believe’ at the 2nd day of Dhaka lit fest on 8th

November 2019.

The panel looked at the idea of objective truth challenged by those whose agendas are not suited by the facts, be it on climate change, political science or economics. The discussion examined what can be done to combat it and what the risks are of inaction.



THE CLIMATE CRISIS GAME AT DHAKA LIT FEST, 2019

Universities can help to provide knowledge and skills needed to achieve sustainable development in a community. Universities are considered as key institutions in processes of social change and development. Therefore, as the regulator of change in society it is important to be engaged and relevant to the community that the university located in. According to Forbes “By becoming an active member in the local area, not only can you increase the recognition of your organization, but you can also meet the people that make up the very community you operate in.” In reference to this CSD always engages with different advocacy initiatives. As part of this engagement CSD was a sustainability partner of Dhaka Lit Fest, 2019. Through this engagement CSD organized a session for children on climate crisis.

The term climate crisis has been used to describe the threat of global warming to the planet, and to urge aggressive climate change mitigation. This term also describes the importance of discussing the consequences of green house gas emissions and promotes political willpower to include this in the climate advocacy. It is believed that the discussion will be able to draw more emotional engagement and support for action to mitigate global warming. Climate crisis invokes a stronger response in conveying a sense of urgency. This response is not only from the political leaders and elderly people but also from our next generation as well. The “climate crisis game” at the Dhaka Lit Fest

was an ideal tool to share about the consequences of green house gas emissions with kids.

We have designed several games i.e. choosing the right options from the multiple choices, word scramble and energy saving game that were related knowing the sources of green house gas emissions, options to reduce and reviewing lifestyles in lowering the carbon foot print. The whole session was divided into two segments. First segment described the history and process of green house gas emission from different sources that are related to our comfort living. Also how this emission changes climate variables and causes significant weather change. Furthermore, the impacts of global warming in different sectors i.e. health, agriculture, water etc. The second part comprises of several games which discussed the option of reducing green house gas emissions. The multiple choices games explore the sources of renewable energy which emits less GHGs. Games on energy efficiency identify the way to reduce energy waste and introduces energy efficiency compliances. Moreover, this game emphasize the behavioral changes to take part in saving energy e.g. how can we save energy in our daily life.

Later, based on the best performance during the game part some students were selected as winner. Both young children and adults present found the session resourceful and enjoyable session and they enjoyed the whole time. Some schools also invited us to arrange the climate crisis game in their school.

GOAL 13: CLIMATE ACTION



Dr. Shantanu Kumar Saha talking at climathon

CLIMATHON-DHAKA

COMMUNITY OUTREACH

Climathon is a year-round programme translating climate action solutions into tangible projects, supporting climate positive businesses and start-ups and addressing local policy changes. On October 25 and 26 2019, Climathon took place in over 122 cities worldwide along with Dhaka city. The Climathon 2019 in Dhaka City was designed to solve the challenges people face every day in Bangladesh. Students from different universities participated this program. This program brings together entrepreneurs, innovators, programmers, designers and professionals to develop solutions. Sustainability was one of the essential values of this program and it resonates in the organisation's concern for bringing changes. Dr. Shantanu Kumar Saha from the Center for Sustainable Development of University of Liberal Arts Bangladesh

(ULAB) was invited to give a lecture on Sustainable Development to the participants. He discussed the main concepts of sustainable development as well as its origin and development with the participants. He also gave some outlines on how students should work for achieving sustainable development. Besides Dr. Saha, Joy Bhowmik attended as a jury member for the review of the project submission of different student groups from different universities.



Joy Bhowmik with other Jury members during the final presentation of the student projects



Discussion after the film screening

CSD HOSTS FILM SCREENING

As part of Goethe Science Film Festival 2019 Center of Sustainable Development (CSD), University of Liberal Arts Bangladesh (ULAB) hosted the film screening of Anote's Ark in Partnership with Geothe-Institute Bangladesh, UN Environment program and UN Women on climate action, climate justice and gender on 28th October 2019 at ULAB auditorium. The film was followed by an expert panel discussion.

The panel included Dilruba Haider, Program Specialist - Disaster Risk Reduction, Climate Change and Humanitarian Action, UN Women, Khurshid Alam, Assistant Country Director, UNDP, Dr. Din M. Sumon

Rahman, Professor, Media Studies and Journalism Department, ULAB and Imran Rahman, Special Advisor to the ULAB Board of Trustees and the Dean of ULAB School of Business. The entire event was moderated by CSD Director and Associate Professor Dr. Samiya Selim.

The documentary is focused on the Island nation of Kiribati in the Pacific Ocean and its losing battle against the sea level rising due to climate change. The aim of the event was to involve youth with climate movement along with spread awareness on climate change. The film portrayed the real harsh scenario of climate change while the panelist came up with some effective solutions for resilience.



GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES



The Study Site in Ramna Park, Dhaka South City Corporation (DSCC)

RE-NATURING AS A DOORWAY TO SUSTAINABLE URBAN DEVELOPMENT

Rumana Sultana

Have you ever dreamed of walking in a Dhaka street that is surrounded by greenery, free from pollution and noise with background music of bird song? I dreamed. Unfortunately, this dream didn't last long, as I woke up literally suffocated

having a nightmare of extremely polluted air, packed roads and grey everywhere.

Dhaka, the capital city of Bangladesh, is the least liveable city among any of the South Asian cities surveyed. This city has been ranked 138 on livability



During fieldwork at Zone 1 of DSCC



Green spaces in Dhanmondi area

among 140 cities of the world by The Economist Intelligence Unit's Global Liveability Index 2019. Furthermore, this city has been ranked the worst in the Air Quality Index (AQI) last month. Dhaka is also known as one of the fastest-growing cities in the world. Greater Dhaka has a population increase of 10 times in the last 40 years to about 20.2 million population in 2018 (World Population Review). However, according to Bangladesh Bureau of Statistics (2013) presently greater Dhaka has a population of 12.04 million with a total population density of 8229 per sq. km.

With the continuous expansion of the city, green spaces and water bodies are being replaced by housing and commercial infrastructure. Dhaka city has barely 5 per cent greenery available while the livable city should contain 25 per cent greenery of its total area (Siddiqua, 2017). Loss of greeneries, and increased number of built-up infrastructures coupled with an increasing amount of greenhouse gas emissions from motor vehicles and factories. These factors are contributing to generating heat stress, waterlogging and unbearable pollution in Dhaka City.

Within the current context of rapid urban growth, and multiple climatic risks improving urban sustainability has become a major concern for the

urban researcher and city planner. As a result, this year, a study on ecosystem services management for sustainable urban development has been conducted by me and Dr. Samiya Selim to understand how re-naturing through nature-based solutions can open the door to sustainable urban development. 105 peer-reviewed publications ranging from 2007 to 2018 were reviewed and 405 respondents were interviewed with structured questionnaires.

Our study revealed the importance of sustainable urban planning with nature-based solutions and re-naturing to tackle multiple climatic risks. Nature-based solutions combine human ingenuity and natural ecosystem services that create a living system to reduce the negative impacts of environmental change. Re-naturing, bringing nature back into our cities, through nature-based solutions offers a tremendous opportunity to enhance well-being and strengthen community cohesion. There are a variety of new approaches for the implementation of nature-based solutions including integrating living systems with built systems through innovative combinations of soft and hard engineering. Incorporating blue and green infrastructures such as ponds, lakes, rooftop gardens, community gardens, parks in the urban environment is undoubtedly a no-

GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES



Rooftop garden in a surveyed household

regret measure that addresses negative climatic impacts while restoring the natural environment and enhancing residents' quality of life.

Growing green in an urban setting reduces urban heat stress, boosts more healthy and active lifestyles, promotes well-being and brings communities together. Rooftop gardens, green walls and greenery associated with housing help to flourish urban lives and improve the attractiveness of an area in addition to lowering tenants' cooling costs. Similarly, urban community gardens increase local food sovereignty, enhance social interconnection, provide opportunities for learning and contribute to urban biodiversity. Forests and vegetation in and around urban areas sequester carbon, regulate the micro-climate, purify the air and reduce urban noise. In Dhaka, rooftop and balcony gardening/agriculture are getting popular due to social acceptance and economic benefits such as food, vegetables. It is inspiring to see that the house owners in the Dhaka South City Corporation enjoy a 10 per cent tax rebate on holdings if they are into gardening in the rooftops, balconies or compounds. Undoubtedly positive changes in Dhaka residents' willingness to live with nature are coming, although environmental benefits of green measures are often outweighed by social and economic advantages.

Restoration and construction of blue spaces are other approaches for attaining sustainable urban liveability. Blue spaces like permeable surfaces, bioretention swales, natural and constructed wetlands, rain gardens are important for absorbing excessive rainwater and lowering the risk of waterlogging and removing pollutant from stormwater. The purified runoff can be stored for re-use to prevent water scarcity during the dry season. However, blue strategies are still not as prevalent as green adaptations in the context of Dhaka city. Blue spaces are evident to reduce heat stress, microclimate variability and pollution in many of the Asian countries such as Korea, Japan and China. Thus, Dhaka has a huge opportunity in adapting blue spaces associated with residence.

In Dhaka, residents are culturally unfamiliar with the importance of re-naturing for better liveability. Thus, particular attention must be paid to the involvement of society, community and individuals in re-naturing, to reconnect people with nature, raising awareness of societal benefits, and create a public demand for a healthy urban environment.

Spending time in nature and direct contact with natural elements offer cultural ecosystem services like mental satisfaction, social cohesion, recreational services, aesthetic experiences and wellbeing. These services are directly perceived and experienced by local people. Thus, giving more weight to these intangible cultural ecosystem service in planning may support the multifunctionality of a green or blue space. It may offer a doorway to civic engagement in improving urban sustainability. We suggest, renaturing with proper management of cultural ecosystems services provides a strong entry point for improving the human-nature relationship in cities and meet urban sustainability goals.

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Biodiversity and Nature Conservation course students with CSD faculty during fieldwork

STUDENTS' PARTICIPATION IN ACTIVE LEARNING: URBAN HABITAT SURVEY

Sometimes the process of learning can get overwhelming. By incorporating fieldwork alongside classroom learning is a great way to improve the learning process.

Fieldwork experience provides a context in which students can integrate, test and solidify their academic knowledge. In September 2019, Biodiversity and Nature Conservation Course students experienced Phase 1 Urban Habitat Surveying and Landscape Mapping in some parts of the Dhaka South City Corporation's Zone 1 area. Students observed, identified and mapped

habitats for plants and animals in the built environment.

In order to use the green environment as a component of policy making process in urban planning and management, it is necessary to know what actually exists, what the planning and conservation goals are and the options for achieving these goals. The green spaces itself must be seen as including biodiversity. At the very least it is important to have descriptive information on what is present, whether land-use, habitat type, landscape characteristics or species distributions.

FIELD WORK



GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES



Dr. Rumana Sultana talking at the ‘Out of the box’ session

CSD PARTICIPATION IN THE FOURTH ANNUAL NATIONAL CONFERENCE ON URBAN RESILIENCE TO CLIMATE CHANGE

Dr. Rumana Sultana Presented her paper entitled “Perceived Cultural Ecosystem Services from Urban Green by Heterogenous Sociodemographic Groups of Dhaka City, Bangladesh” during the “Out of the box” Session at The Fourth Annual National Conference on Urban Resilience to Climate Change in October 2019. This paper was coauthored by Dr. Samiya Selim, Director,

CSD, ULAB and Dr. Shafiul Alam, Associate Professor, Rajshahi University. This conference was organized by International Centre for Climate Change and Development (ICCCAD), and the Asian Cities Climate Change Resilience Network (ACCCRN) Bangladesh and brought experts, practitioners and policy makers to discuss a range of issues related to urban resilience and climate change adaptation.

ACADEMIC OUTREACH



Joy Bhowmik with other participants at Urban Thinkers Campus, BUET

URBAN THINKERS CAMPUS BUET 2019

Urban blue-green spaces are important to combat urban heat island effects, reducing noise pollution and improving air quality to the future increased extreme weather events. Rich biodiversity in these spaces also works as nature based solution to the upcoming climate induced challenges. Joy Bhowmik attended the dialogue on design green space and landscape as a discussant at Urban Thinkers Campus (UTC) in December 2019, which was organized by the department of Architecture, BUET.



GOAL 5: GENDER EQUALITY



During in depth interview on women role in decision making on climate change

THE IMPORTANCE OF WOMEN'S LEADERSHIP ROLE IN DECISION MAKING ON CLIMATE ACTION IN THE CONTEXT OF BANGLADESH

Sayed Karim

It is well known that climate change is taking place all over the world, and although climate change is going to affect everyone, women would be the most impacted by climate change. The anticipated effects of climate change differ regionally, locally and nationally. Not only that climate change has a different impact on livelihood, food, infrastructure, and ecosystem, it also differs from country to country. The impact of climate change stretches out to community affecting individuals and particularly women more. As Bangladesh is at the

forefront of climate change, extreme weather events including cyclones, floods and storm surges make Bangladesh extra susceptible to climate change.

Although Bangladesh only ranks 152 out of 188 countries for GhG emissions and constituting less than 0.36% of global emissions, in terms of climate change vulnerability Bangladesh ranked ninth in the world in 2019 according to the German watches global risk index. In other words, Bangladesh not only is the most vulnerable country but also ranked 25th least

GOAL 5: GENDER EQUALITY



During fieldwork at Nilphamari

ready country in terms of fighting climate change (germanwatch.org, 2019).

Bangladesh needs to adopt adequate measures in order to fight climate change and to take climate effective policies that will address the most vulnerable group of climate victims, women. Thus involving women in the policymaking level from local to regional to national is crucial.

As stated before, women are the worst receiver of climate change impacts due to their vulnerable socio-economic state and little say or involvement in the decision-making process. Their limited resources and lack of access to information adds to their vulnerability. In times of climate-related disasters that are likely to occur more frequently in the future, women will be hit harder than men. In the past the disaster-fatality rate for women was five times higher than men. This happens due to their limited access to information, and also because of social constraints. For example, women are often forbidden from going outside without being accompanied by a male relative. The mobility of women in Bangladesh in general is strictly restricted.

In the context of Bangladesh, gender plays a crucial role as it does not only refer to males and females but also refers to masculinity and femininity and ascribes certain

characteristics to individuals based on their gender. Society has different expectations from males and females. Based on these expectations society perceives gender roles and determines power and access to resources for men and women differently. Gender shapes the opportunities and restraints women and men who wish to secure their livelihoods across all cultural, political, economic and environmental settings. Gender influences the roles and relationships of people throughout all their activities, including their labor and decision-making roles.

Thus, to reduce the effect of climate change women need to be integrated into the decision-making process involving climate change policies. The study carried by UNDP in 2011, has shown that there is a link between gender equality, women's empowerment, and the environment. The study argues, when gender inequality is high, forest depletion, air pollution and other measures of environmental degradation are also high (UNDP, 2011). That is why the government of Bangladesh also highlights the importance of increasing the involvement of women in decision making roles, thus enabling them to use their unique knowledge in the context of climate change. Hence the government of Bangladesh recognizes the importance of the involvement of women in decision making process and prioritizing gender equality and women's empowerment in its Vision 2021. Vision 2021 raises the importance of gender balance and gender-sensitive programming by making public expenditure more pro-poor, gender-sensitive and environment friendly (GoB, 2012).

Article 27 of the constitution of Bangladesh, also highlights that "Women shall have equal rights with men in all spheres of the State and public life". Nonetheless, in reality, women are still subject to different forms of gender-based discrimination. Women's active participation in the policymaking level could be the

solution to reduce the adverse effect of climate change, as called for by the SDGs and the Paris Agreement.

In light of that, research has been carried out by CSD-ULAB to capture the insights of women leaders in different organizations and how they perceive and contribute to climate change. It has found out that, women leaders from different organizations from academia, local and international NGOs, government services, the judiciary and private organizations have seen climate change in a similar light. Almost all the women leaders felt that women, in general, are not given enough opportunities where they can get involved in the decision-making process. At the same time, the study also found out that those who are in the leadership position in their organization are pursuing policies in their organizations that are more women and environment-friendly.

One aspect of this research has found out that women government officials take up the policies that give importance to the women's hygiene and

reproductive health as well as provides them relevant training so that if any climate disasters take place they can switch to different economic activities instead of relying only on farming.

Thus ensuring women's participation in all aspects of the decision-making process will ensure female empowerment as USAID recently pointed out, "Gender equality and female empowerment are core development objectives, fundamental for the realization of human rights and a key to effective and sustainable development outcomes. No society can develop successfully without providing equitable opportunities, resources, and life prospects for males and females so that they can shape their own lives and contribute to their families and communities" (USAID, 2012).

Sayed Karim
Research Associate cum Guest Lecturer
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COLLABORATION WITH THE WORLD ACADEMY FOR THE FUTURE OF WOMEN

Dr. Rumana Sultana, Assistant Professor, CSD-ULAB presented during the Open Forum on "Committing to Something Bigger than Yourself" organized by World Academy for the Future of Women (WAFW) and University of Liberal Arts Bangladesh (ULAB). Professor Imran Rahman, Special Advisor (Board of Trustees), ULAB and Dr. Vivien Young, Facilitator of the open forum talked during the Open Forum.

The WAFW is a bold and daring leadership program focused on developing young women for leadership roles that will address and achieve the United Nations'



Millennium Development Goals (UN-MDGs) and UN Sustainable Development Goals (UN-SDGs).

In this Open Forum Dr. Sultana talked about her journey as a member of CSD team towards doing something for others. She explained, how CSD as an institution is committed to generating sustainability knowledge, practicing sustainability in house, teaching students about sustainability and ensuring sustainability. At the end of this open Forum there was a discussion on women's future, leadership role and UN-SDGs.

4 QUALITY EDUCATION



GOAL 4: QUALITY EDUCATION



ACU CONFERENCE IN BRISTOL

Dr. Samiya Ahmed Selim took part in the discussion at the National Coordinating Centre for Public Engagement ‘Engage’ conference organized by the Association of Commonwealth Universities (ACU) in Bristol, UK in December, 2019. The focus of the conference was

mainly looking at how universities can engage beyond the institution to bring in communities, industry and other partners.

She made an invaluable contribution and brought in a much-needed perspective from South Asia from her work of CSD-ULAB.

EVALUATION OF STUDENTS' PERCEPTIONS OF THE SUSTAINABLE DEVELOPMENT MINOR

Afsana Preeti and Oliver Scanlan

Executive Summary

The Minor in Sustainable Development offered by ULAB's Center for Sustainable Development has been in operation since 2018.

At the time of writing, roughly ninety students are enrolled in, and three students have graduated with, a minor in Sustainable Development.

As part of CSD's ongoing efforts to monitor progress and improve its course offering, 110 students enrolled in the SD Minor were sent questionnaires about their experience across a range of areas, from their view of the number of course offerings, curriculum, course instructors to the relevance to their future career, of which 62 responded.

Overall, the results were overwhelmingly positive:

- 72% of respondents rated their overall experience of the Minor as either "excellent" or "very good".
- 94% of respondents either strongly agreed or agreed with the statement that "the minor enriches my CV."
- 92% of respondents would recommend the minor to a fellow student.
- 84% of respondents said that the minor's learning outcomes supported their future career goals.

Particularly pleasing in view of CSD's mission to train the Sustainability Leaders of the future, 89% of respondents either strongly agree or agree with the statement "I have started to practice sustainability in my everyday life."

In terms of suggestions for improvement and

further developing the Sustainable Development portfolio at ULAB, suggestions included the following:

- A specialised short course going in greater depth into the practical applications of Sustainable Development.
- Increasing the diversity of instructional methods and reading materials.
- Bolstering active career counselling.
- Expanding awareness of the Minor across the student body.

Based on these responses, CSD's recommendations are as follows:

- The introduction of a short course focused on practical applications of sustainability (on this point, CSD notes we are already trialing such a course)
- Expanding the diversity of instructional methods and reading materials, in line with IQAC guidelines on curriculum development, on a course by course basis.
- Examining what options there are for improving the public profile of the SD Minor within the ULAB community.

While CSD would always like to do more, particularly in terms of active career counselling, there are resource constraints that make pursuing this option infeasible at the present time.

CSD however continues to scope and secure students' opportunities for professional experience; the latest example is the placing of students as data collectors with Oxfam and CSD's collaboration on the PROTIC project

GOAL 4: QUALITY EDUCATION

on gender empowerment, climate resilience and ICT.

Further, during the course of the compilation of this report, it became apparent that the SD Minor is not integrated into ULAB central systems in a manner that is consistent with other offered minors. This is a result of CSD not possessing the resources of a full department. As a result it is currently easier for students to drop the SD Minor than other Minors, and it is impossible for CSD staff to accurately maintain real time accurate information on SD Minor enrollment or graduation figures. To that end, CSD also recommends:

- Integrating the SD Minor into central systems in a manner that is consistent with other Minors, including:
 - Harmonizing criteria and requirements for changing Minor, and
 - Centrally maintaining real time figures of enrolled and graduated SD Minor students, updating CSD staff on a semester by semester basis.

Introduction

CSD is the only research institute in Bangladesh dedicated solely on the Sustainable Development dilemma: how can the human development needs of all people be realised in a world of finite resources facing enormous environmental challenges, from the collapse of biodiversity to climate change?

We generate original research concerning all aspects of the Sustainable Development Goals, and how to overcome the serious and numerous obstacles to their achievement.

We act as regional hub, hosting both junior and senior scholars with research interest closely aligned with our own, convening leading scholars from around the world at major academic conferences, and establishing innovative partnerships to deliver a disruptive research agenda with real world impact.

We educate and train the next generation of sustainability leaders in Bangladesh, particularly through our “Minor in Sustainable Development”

course offering, which has been in place since 2018.

Objectives of the Minor in Sustainable Development

The core tenant of the Minor in Sustainable Development is the potential for individuals, through their own agency, to affect real change in the world around them, and is a core instrument in furtherance of CSD’s mission to train the Sustainability leaders of the future.. The Minor gives students the widest possible exposure to all of the different dimensions of the Sustainable Development dilemma, as well as the full diversity of approaches to exploring these problems. This strong interdisciplinarity, combining insights from the Social and Natural Sciences, prepares students for a practical exercise in Sustainable Development, an internship that caps the Minor. Graduates of the Minor thus have a both a thorough theoretical grounding in Sustainable Development, and an understanding of practical applications in making it a reality.

SD Minor Learning Outcomes

Graduates of the SD Minor will have gained the following:

- The ability to think critically and analytically.
- Practical problem-solving skills.
- Experience of different disciplines and awareness of how they can be used in tandem to solve difficult problems.
- A thorough knowledge of Sustainable Development, and how key domains like Climate Change, Biodiversity, Environmental Science and Organic Farming fit within the overall subject.
- Awareness of the linkages between local, grounded experience and the level of international policy-making.
- Practical exposure to the real-world applications of sustainable development, through field trips, attendance at CSD events and seminars and introductory visits to organisations working on Sustainability, including NGOs.

SD Minor Courses

- Introduction to Sustainable Development
- Social Theory and Methods of Social Research
- Introduction to Climate Change Debate
- Environmental Science
- Biodiversity and Natural Conservation
- Organic Farming

Rationale, objectives and methodology for the SD Minor Evaluation

With the SD Minor now in operation for over a year, and questions concerning CSD future strategy in creating new course offerings and pursuing other avenues in leading ULAB's Sustainability agenda, it was deemed essential to gain feedback from students in a substantive exercise. The evaluation had the following objectives:

- Evaluate existing course materials, teaching methods and instructor ability across the Minor's course offerings.
- Assess the extent to which students perceive the Minor to actively support their career aspirations.
- Gauge the degree to which the SD Minor is

encouraging "Sustainability thinking" among its students.

- Gain students' insights concerning CSD future course offerings and, more generally, what CSD could be doing better, and should be doing more of.

The methodology for the evaluation comprised a survey conducted online, using a standardized instrument. The survey was sent to 110 students, of which 62 responded (response rate 53%). The survey was conducted during the month of May, 2019.

Study Limitations

The main practical limitation of the study is that, by definition, students who have not completed all of the requisite courses for the SD Minor cannot speak to all courses. However, all respondents had completed at least three courses, running the full gamut of the SD Minor offering.

Results

Responses to the questionnaire are tabulated in Tables 1 and 2 (below). All figures are percentages.

Table 1: Responses concerning course content and self-evaluation (all figures percentages)

	Strongly agree	Agree	Neutral	Disagree
Offered adequate courses	19	19	18	3
Adequate reading materials	10	65	19	6
Adequate variety of instructional methods	24	53	18	5
Good combination of theoretical and practical material	14	66	16	3
Exams clearly support stated learning outcomes	27	55	18	0
Assignments clearly support state learning outcomes	23	69	08	0
I contributed constructively during in-class activities	15	65	15	5
I feel I am achieving the learning outcomes	16	69	15	0
My knowledge of sustainable development, society, climate change and environment is increasing	19	69	10	2
The Minor enhances my CV	26	68	06	0
I have begun to practice sustainability in my daily life	29	60	11	0

GOAL 4: QUALITY EDUCATION

Table 2: Responses concerning overall experience (all figures percentages)

	Yes	No
Are the courses within the minor well integrated?	84	16
Would you recommend this minor to a fellow student?	92	8
Do you get support from dept/advisor on this minor?	84	16
Does it complement your major?	81	19
Are the learning outcomes of this minor supportive towards future career goal?	84	16

Finally, students were asked a) to rate their overall experience on a four point scale from “Excellent to Poor”, b) to state their own personal preference for a further course offering to take their studies of sustainability forward and c) their view on which careers the minor prepares them for. The results are presented in Tables 3 – 5 below, all figures are percentages:

Table 3: Students’ rating of their overall experience

Excellent	33
Very Good	39
Fair	28
Poor	0

Table 4: Students’ preferences for a further course offering

Masters Degree	19
Short Course	81
Diploma	0

Table 5: Which careers does the Minor best prepare you for?

Government	0
NGO	29
INGO	27
Study Abroad	35
Other	8

Discussion

The results of the evaluation are overwhelmingly positive; 75% of respondents either agreed or strongly agreed with the statement “courses are supported by adequate reading materials.” This represents the lowest rating of current SD Minor arrangements given by respondents. 94% of respondents either strongly agreed or agreed with the statement that “the minor enriches my CV,” 82% with the statement that the Minor’s learning outcomes supported their future career goals, and 92% would recommend the Minor to a fellow student. Overall 72% of respondents rated their experience as either “excellent” or “very good”.

As discussed above, CSD’s mission includes our commitment to “educate and train the next generation of sustainability leaders in Bangladesh” and the SD Minor is currently the core instrument through which CSD pursues this objective. In light of this, it is particularly pleasing that 89% of respondents either strongly agreed or agreed with the statement “I have started to practice sustainability in my everyday life.”

Of course, there is always room for improvement, and respondents gave the following concrete suggestions for how CSD moves forward:

1. Respondents overwhelmingly view a “short course” as the most useful potential future course offering to further their studies of Sustainability, ideally with a practical focus.
2. The diversity of instructional methods and reading materials could be improved.

3. There is a strong demand for more active career counselling.
4. There is scope to increase the profile and awareness about the SD Minor across the University.

Recommendations

CSD has composed a number of recommendations based both on student responses and also the experience of compiling this report. They are as follows:

1. CSD is pleased to see that a “short course” commands significant support among current SD Minor students, as we are in the process of trialling just such a course. This new offering has a focus on practical issues surrounding development, involving leading development practitioners as instructors, fully in line with student aspirations.
2. CSD accepts this recommendation from respondents, and will continue to update and enrich course reading materials and instruction methods, in line with IQAC guidelines on curriculum development.
3. While we have sympathy with student requests in this area, capacity constraints at the present time prohibit more active career counselling along the lines suggested. Barring more active efforts on the part of University central services on this issue, this must remain an aspiration for the future. There are two caveats here:
 - a. CSD is continuing its effort to provide the best SD Minor Students opportunities for practical work experience in Sustainable Development research. The latest example is the employment of students as data collectors as part of the collaboration between CSD and Oxfam on the PROTIC project, using ICT to enhance gender empowerment.
 - b. The forthcoming short course will bring students exposure to leading practitioners

in the development field. This cannot help but be advantageous for their practical knowledge of career options in the field, and how to pursue them.

4. CSD takes the issue of a potential lack of visibility of the SD Minor seriously and we are looking into potential options that will address this.

As noted above, during the course of the compilation of this report another issue became apparent that have a direct bearing on the future of the SD Minor, and this is its weaker integration into ULAB central systems when compared with other Minors offered by ULAB. This is probably a result of CSD not possessing the resources and standing of a full department. As a result, it is currently easier for students to drop the SD Minor than other Minors, and it is impossible for CSD staff to accurately maintain real time accurate information on SD Minor enrollment or graduation figures. To that end, CSD also recommends:

- 5.) Integrating the SD Minor into central systems in a manner that is consistent with other Minors, including:
 - a. Harmonizing criteria and requirements for changing Minor, and
 - b. Centrally maintaining real time figures of enrolled and graduated SD Minor students, updating the Director of CSD, or a member of CSD staff nominated by the Director, on a semester by semester basis.

Afsana Preeti
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Dr. Oliver Scanlan
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GOAL 4: QUALITY EDUCATION



Certificate giving ceremony

DEVELOPMENT TOOLBOX: A NEW LANDMARK FOR CSD

The global economy is facing numerous challenges in the 21st century. Therefore, besides academic knowledge and technological expertise it is essential to have adaptable human resources to cope up with the rapid changes in today's society. Consequently this rapid changes and increased complexity of today's world present new challenges and put new demands on our education system. Thus education system must emphasize on the process of building youth having academic knowledge along with practical skill for career.

Development sector plays a crucial role to bring about positive and transformational changes in rural people's lives with the participation of government, private sectors and donors.

Youth involvement in community planning, decision making, and action hasn't received a lot of attention in the past, but youth are becoming increasingly involved in community development. Youth are a valuable resource for organizations and groups involved in community development. By encouraging and allowing opportunities for youth, community organizations can help youth to learn valuable skills.

With the aim of preparing youth as an important actor of Development sector, Center for Sustainable Development, University of Liberal Arts of Bangladesh (CSD-ULAB) has designed the certificate course on Unpacking the 'Development Toolbox' in collaboration with several reputed national and international agencies.



Ms. Hasin Jahan, Country Director, Practical Action, delivering lecture during the short course in September 2019

Why this course?

- To enhance the knowledge on community development as a core component of humanities, social science and business studies.
- To generate employment opportunity, leadership and networking with institution from home and abroad
- To enhance the role, capacity and technical skill as a development worker in community development
- To intensify the capacity of policy makers on the Sustainable Development Goals and its implementation in Bangladesh.

Training Content

The course has been designed under three themes- Development in Action, Cross-Cutting Issues and Research and Development. There have in total eleven sessions compiling of contents to develop a

better understanding on theories and basic concept of development, context and evolution of development planning in Bangladesh, project formulation, program implementation and tools in monitoring, evolution and accountability learning, advocacy, awareness and mobilization, research methodology and creative writing. Over all, the contents focus on the issues that will discover ways in which the participants can realize their potential and work together for a fairer, healthier and happier world.

Who were the mentors?

The course was instructed by the trainers from government, private sectors, academic and UN bodies who are well known and established at their own field.

And the participants?

This innovative after office certificate course contains participants from diverse background

GOAL 4: QUALITY EDUCATION

including students, project coordinators, director bodies and social workers. Participants come from a wide range of professional, academic and cultural backgrounds and all bring with them a curiosity about how social justice can be developed by people working together for change.

Feedback from the participants

To understand the participant's perception on Development Toolbox course, an assessment has been conducted by CSD where the participants have been asked to give their opinion and thoughts regarding this certificate course.

What did they appreciate most?

The participants had been asked about the three most important topics they learned throughout the sessions. According to them, they learned various factors of development including concept and indicators of development, progress trap theory, development policies and governance, project formulation, development challenges in Bangladesh and Consider climate change into development plan. Besides theoretical concept, they were provided with some hand on practical experience to get realistic skills on development sector.

Moreover, they liked the cross cutting issues they had been taught to understand program based development activities. They considered the topics containing basic of project design, implementation of project design, partnership process of different organization, advocacy, mobilization and budget allocation as extremely effective.

Aside from, they also had been guided on competencies such as leadership, values, team works, ethics and gender which were very crucial as stated by them.

In addition, the participants had been trained to be highly analytical, detail oriented and critical in judgment while performing research. They found the topics research methodology, study design and method, analysis and Interpretation of Quantitative Data, research Ethics and Integrity as most beneficial.

What did they desire more from this course?

Even if the participants were highly satisfied on this course, they desired some more things from this certificate course. They looked for more detailed explanation on development and more practical example in the context of Bangladesh. To this regards, one participant said "more depth knowledge on how to monitor and evaluate project in different situation would be more helpful". They longed for the topics which might be included topics as healthcare issues, disaster management and Strategies of national alliance. They had the need for topics such as Publication opportunities, policy gap analysis in research.

How do they expect to use the knowledge from this course?

Most of the participants found this certificate course efficient and useful. They believe that this certificate course would be extremely useful in their future from numerous aspects-

- They would be able to think diversely
- This would help them to get involved in development sector
- Will enhance their communication and networking skill
- Will assist them to design a development project
- Will make them capable to work with government policies
- Will be beneficial for conducting the research and academic writings

This course, over all according to participants will provide them with the opportunity to participate in a network of community development projects.

On the whole, it can be optimized that development toolbox certificate course was able to develop an understanding of community development which would help the participant to engage themselves in the development sector.



Dr. Samiya Selim discussing on air pollution problem

ROUND TABLE DISCUSSION ON “SOLUTIONS TO THE AIR QUALITY SITUATION IN BANGLADESH”

Center for Sustainable Development (CSD), US Embassy and EMK Center Jointly organized a round table discussion session on “Solutions to the Air Quality Situation in Bangladesh”, on 25th July 2019 at EMK Center. Executive Chairman of Bangladesh Environmental Lawyers Association (BELA), Syeda Rizwana Hasan; Director & Associate professor, Center for Sustainable Development (CSD) of ULAB, Dr. Samiya Selim; Health specialist, Anna Williams and other government and NGO officials

were present at the program. Honorable panelists present shared their insightful thoughts to fight the current situation of air pollution in Bangladesh.

To prevent air pollution, the government has planned to convert all brick kilns using fire into non-fire ones, said director of Department of Environment (DoE). Brick kilns using fire are considered to be one of the major sources of air pollution in the country. DoE Director Ziaul Haque said the government is planning to make air clean and free of pollution within

GOAL 3: GOOD HEALTH AND WELL-BEING



Discussants of the round-table discussion



Ms. Anna Williams explaining how to breath healthier

possible shortest time.

Ziaul Haque said the government between 2020 to 2026 will allow auto-bricks with non-fire technology in the brick kilns. The director explained that the mud bricks manufactured using the traditional process should be transformed. Vehicles are another major source of air pollution and unfit vehicles must be removed in order to reduce air pollution, he said. Mahmood Hossain,

owner of an auto brick kiln in Savar said that hundreds of companies have already invested a huge amount of money in auto-fire kilns. If government is moving to non-fire brick fields then what will these kilns do? he questioned. Additional Secretary of DoE and Project Director for Clean Air and Sustainable Environment (CASE) Project, Manjurul Hannan Khan, said this is not only a policy issue but also an issue of personal attitude as well.

MOU SIGNED BETWEEN HEIDELBERG INSTITUTE FOR GLOBAL HEALTH AND ULAB IN DHAKA

The Heidelberg Institute of Global Health (HIGH), one of the research institutes in the Faculty of Medicine at the University of Heidelberg and University of Liberal Arts Bangladesh (ULAB) signed a Memorandum of Understanding (MoU) on 2 July 2019 at the ULAB campus in Dhanmondi. The aim of the signing of the MoU between ULAB and the Heidelberg Institute of Global Health (HIGH) was to have joint research between Center for Sustainable development (CSD), ULAB and HIGH, apply for grants through collaboration, exchange of students, faculty members, and technical staff to facilitate knowledge transfer involving identified areas of academic collaboration and other activities as deemed mutually appropriate.

For the MoU signing ceremony, ULAB was represented by the Vice-Chancellor, Professor H. M.



Jahirul Haque, PhD, while Heidelberg Institute of Global Health was represented by Professor, Dr. Till Barnighausen, Director of HIGH. University officials participating from ULAB included Professor Imran Rahman, Special Advisor to the Board of Trustees; Director of CSD Dr. Samiya Selim accompanied by other CSD faculty members.



GOAL 10: REDUCED INEQUALITIES



Project inception meeting with international management group, project advisors and researchers

LAND RIGHTS IN ACHIEVING THE SDGS

Oliver Scanlan

CSD is currently leading a collaboration with Dublin City University and Wageningen University looking at the crucial role of land rights in achieving the SDGs, funded by the European Union's Jean Monnet scheme, part of the Erasmus + framework. Based on original new research, the project will offer policy recommendations to EU decision makers as to the future trajectory of EU development policy.

What is the future of development aid in an emerging world order characterised by the rise of middle classes in Asia and Africa, the growing convergence between Global North and South, the re-emergence of great power competition and the threat posed by a changing climate? These are the key

questions for development policy makers over the short and medium term.

The importance of land and agrarian change in this changing context cannot be overstated. Academic authorities have noted the importance of dispossession and growing landlessness in the stubborn persistence of hunger and malnutrition in the Global South, and the central importance of independent land rights for women in pursuit of gender equity. Tensions between conservation efforts and affected forest dwelling communities are attracting greater prominence, particularly as a result of increasing investments through instruments like REDD+.

For various reasons the importance of land

GOAL 10: REDUCED INEQUALITIES



Gender specialist Nasrin Siraj in the field



Team members at fieldwork prep meeting

has historically been marginalised in mainstream development practice. In terms of the EU's global priorities, whether the problem is gender equity, food security or climate change resilience, the agrarian question cannot be ignored.

CSD's Jean Monnet project will be exploring all of these issues. In partnership with Dublin City University and Wageningen University and Research, we will be analysing the critical role of land tenure, land rights, and ongoing practices of land administration in international development policy, set against the wider context of the EU's global strategy.

Our project will:

- Conduct original research on EU interventions relating to land in Bangladesh
- Convene a major event on land within EU development policy involving practitioners and academics from diverse contexts around the world.
- Organise “virtual classrooms” with partner organisations to increase the practical insight into EU development policy among MA and MSc students in both development studies and European Union studies curricula.
- Hold a second event focusing on disseminating policy relevant outcomes to EU decision makers.

So far we have had excellent discussions at International Project Group level. Following a scheduled major kick off meeting at the end of December, we will be launching a website and commencing fieldwork early in the new year. Stay tuned for regular updates!

Dr. Oliver Scanlan
Research Fellow
Center for Sustainable Development
University of Liberal Arts Bangladesh



GOAL 7: AFFORDABLE AND CLEAN ENERGY



From left Professor Imran Rahman, Special Advisor to the Board of Trustees, ULAB, Mr. Siddique Zobair, Member (Additional Secretary), Energy, Efficiency and Conservation, SREDA, and Dr. Samiya Selim, Director, CSD, ULAB

2019 ULAB-KEELE RENEWABLE ENERGY SYMPOSIUM

Center for Sustainable Development (CSD) and Keele University, UK successfully partnered to design and host a symposium at University of Liberal Arts Bangladesh (ULAB). The symposium, “Building Resilient Energy Generation for Small & Remote Communities in Small Island Developments” focused on a solutions driven approach to the topic. Honorable Chairman of Sustainable and Renewable Energy Development Authority (SREDA) Md. Helal Uddin was the Chief Guest.



Dr. Sharon George moderating the information sharing session



GOAL 17: PARTNERSHIPS FOR THE GOALS



Dr. Haseeb Md. Irfanullah talking during the conference

IFRRO INTERNATIONAL CONFERENCE 2019

Dr. Haseeb Md. Irfanullah shared the achievements, challenges, and opportunities for ‘Digital Bangladesh’ with delegates from all over the world at the International Federation of Reproduction Rights Organisations (IFRRO)

International Conference 2019 in Edinburgh, United Kingdom. This year’s conference theme was ‘Technology, Copyright and the Global South: Embracing Possibilities for the Future’.



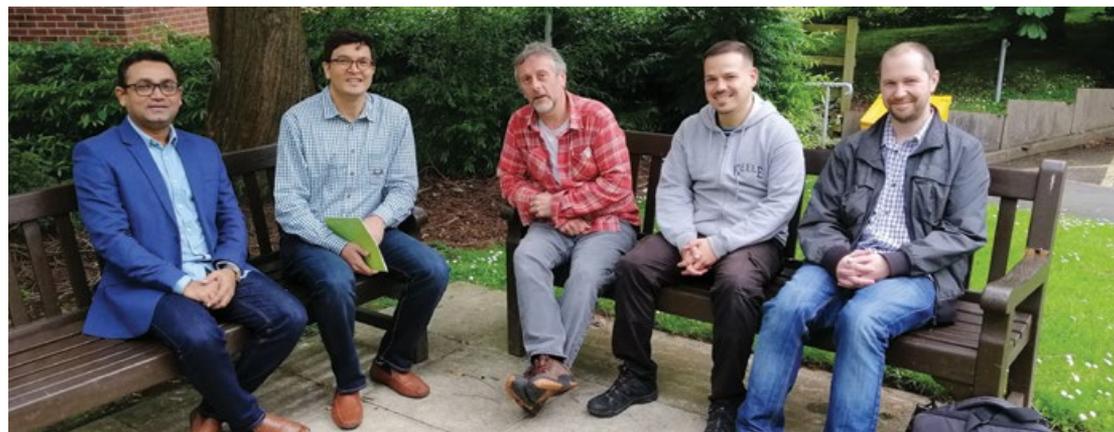
Dr. Haseeb Md. Irfanullah shared three stories: Migratory Birds & Avian Influenza, Vultures & Veterinary Pain Killers, and Human-Elephant Conflict & Coexistence with so many enthusiastic students of the Sylhet Agricultural University at the event organized on 4th September 2019 by Pradhikar. He showed them how people can live together with wildlife balancing our economic development and biodiversity conservation.

8TH SSEASR CONFERENCE

Dr. Shantanu Kumar Saha presented a paper proposal entitled River and Livelihood in Changing Climatic Context: A Case Study on a Group of Poor River Bank Dwellers in Bangladesh at the 8th SSEASR Conference (a regional conference of IAHR) on Rivers and Religion: Connecting Cultures of South and Southeast Asia being hosted by the University of Liberal Arts Bangladesh (ULAB) and organized by the Center for Archaeological Studies (CAS) on 14th June 2019. In the proposed paper, Dr. Saha tried to explore the issue of occupational transition among the poor river bank dwellers in Bangladesh due to climatic hazards. He argued that the involvement of diverse stakeholders on a given tract of land emerge as main challenges for sustainable livelihood practices.



Dr. Shantanu Kumar Saha participating at the 8th SSEASR Conference



*CSD faculties
visiting Keele
University,
UK*

VISIT TO KEELE UNIVERSITY

As a part of academic outreach, CSD staffs went to visit Keele University, UK in June 2019. There they got the chance to meet with faculties from different department to scope out future research collaboration between Keele and ULAB. In particular, the CSD team met Professor David Amigoni, Pro Vice-Chancellor (Research and Enterprise) to express their interest on doing research collaboration with Keele University. They got the

opportunity to see the different sustainability initiatives of Keele University; some of the initiatives would be implemented in ULAB in near future. During their stay, Dr. Shantanu given a presentation on “Consequences of Development Initiatives in Bangladesh”. The paper mainly discussed the consequences of introducing an indigenous adaptation cultivation practice by NGOs for poor farmers as an alternative livelihood in an area affected by waterlogging.

VISITING RESEARCHERS' PROGRAMME



VISITING RESEARCHERS' EXPERIENCES

Isobel Talks

Arriving in Bangladesh to begin my PhD fieldwork back in April 2019 was a daunting prospect. I had tried my best to sort logistics out from my department at Oxford University, but knew a lot of these would need to be sorted on the ground. Eventually I found my feet in the vibrant and inexhaustible city of Dhaka, but I have no doubt that things would have been a little smoother had I already known about ULAB and the Centre for Sustainable Development's fantastic Visiting Researcher scheme.

I was lucky to meet with Oliver Scanlan, Research Fellow at CSD, who then went to introduce me to Dr Samiya Selim and the rest of the team. For the second phase of my research from September onwards I officially became a Visiting Researcher, participating in a wide range of research activities as a result. From giving feedback on papers, to supporting the annual conference, to contributing to field trips and reports, writing newspaper articles and teaching classes, I have greatly enjoyed being a part of the CSD team and

engaging in the vibrant intellectual community here.

I am grateful to CSD for enabling me to bring together my two main interest areas – technology for development and conservation of the natural environment in the face of the climate crisis – in the work that I have done here. For example, engaging in the research work on Oxfam's PROTIC work, which is a participatory project that works with rural women to create smartphone based information services on climate adaptation strategies – deepened my understanding of the potential of digital tools to enhance climate resilience. Visiting Cox's Bazaar with senior academics from Keele University and Bremen University to scope out pro-poor technology projects was also a real highlight of my time here. This trip enhanced my knowledge of the challenges inherent in trying to achieve both social and environmental sustainability through technology.

Aside from the great work that CSD does, the team is also tremendously welcoming and supportive. I feel fortunate to have met them all, and look forward to staying in touch in the future.



Amelie Tobben

I had the chance to work with ULAB-CSD in the context of the field research for my Master in Global Development from the University of Copenhagen. Being interested in climate change and livelihood strategies, my research focuses on environmental migrants and how they make a living in urban informal settlements. Bangladesh is a country highly exposed to a variety of environmental stresses, such as floods, tropical storms, changing traditional rainfall patterns and droughts. With rural households in Bangladesh mainly building their livelihoods on natural resources and agricultural production, they are highly vulnerable to these environmental changes. Many households have lost their livelihoods in recent years due to changing climate and made the decision to move to other places, such as Dhaka.

The objective of my research was to place the people at the centre of attention in order to understand how they make a living in urban Bangladesh. By using

the sustainable livelihoods framework, I am aiming to analyse the fragilities in the everyday life experiences of environmental migrants and to understand their diverse ways of life and living. For that purpose, I conducted mixed methods field research in two slums in Dhaka.

This experience was very valuable, especially due to the great support of CSD and especially by Dr. Samiya Selim. The whole staff provided me with a very warm welcome to the team and with a desk in their lively office in Dhanmondi. They helped me organising the practicalities and logistics surrounding the fieldwork and helped me finding committed students who supported me as research assistants and interpreters throughout the whole process of the field research in Dhaka. Leave alone the engaging

“ I can only recommend the experience of being a visiting researcher at CSD and would like to thank everyone who made this experience so valuable to me ”

and inspiring discussions with the CSD staff about my thesis and related topics. Furthermore, I gained an insight and was allowed to support CSD with a book project about environmental migrants. I can only recommend the experience of being a visiting researcher at CSD and would like to thank everyone who made this experience so valuable to me.

NEW PUBLICATION ROUND-UP FOR 2019

1. Selim, S.A., Tripathy, B. & Ahmed, M. (2019). Resilience in Action: Challenges and Solutions to Climate Change in Bangladesh. The University Press Limited (UPL)
2. Sultana, R. and Shafiul, M.A. (2019). Mangroves, Saltmarshes and Seagrasses of Bangladesh: A Temperature Stress Scenario. In S.A. Selim, B. T. Furlong & M. Ahmed (Eds), Resilience in Action Challenges and Solutions to Climate Change in Bangladesh (pp 115-127). Dhaka, Bangladesh: University Press Limited.
3. Sultana, R. (2019). Harmony with Nature for Making Cities Truly Livable and Sustainable in a Changing Climate. Dhaka Tribune (11 November 2019)
4. Bhowmik, J. and Khan, M. H. I. (2019). Climate Change-Related Loss and Damage in Bangladesh: Understanding the Concept and Approaches to Address. In S.A. Selim, B.T. Furlong & M. Ahmed (Eds), Resilience in Action Challenges and Solutions to Climate Change in Bangladesh (pp 133-146). Dhaka, Bangladesh: University Press Limited.
5. Saha, S. K. (2019). Alternative Cultivation Practice in a Waterlogged Area: Challenges for Agricultural Extension Initiatives. In S.A. Selim, B. T. Furlong & M. Ahmed (Eds), Resilience in Action Challenges and Solutions to Climate Change in Bangladesh (pp 171-195). Dhaka, Bangladesh: University Press Limited.
6. Williams, A., Scanlan, O., & Selim, S. (2019). Breathing Health(ier) Amid Rapid Urbanisation: Challenges and opportunities related to tackling the primary contributors to Dhaka's air pollution. Dhaka, Bangladesh: Center for Sustainable Development.
7. Moolna, A., Selim, S.A., George, S., Saha, S.K., Roberts, C., Bhowmik, J., Hulme, A., George, S., Karim, S., Robinson, Z. (2019). How can we meet the energy challenges of small and remote coastal communities affected by changing climate in Bangladesh and globally? Keele University Institute for Sustainable Futures discussion paper 2.
8. Furlong, B.T., & Többen, A. (2019). Environmental change and the problem of mobility: Understanding the complexities in Bangladesh. Climate Tribune, Dhaka Tribune, Dhaka.
9. Irfanullah, H.Md. (2019). Can co-learning be a motivation for peer reviewers? AuthorAID. 17 Sep 2019.
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12. Irfanullah, H.Md. (2019). Rohingya refugee crisis through the lens of climate change. The Daily Star, 26 Aug 2019
13. Irfanullah, H.Md. (2019). Why Should Researchers Volunteer for Global Evidence Gathering Processes? The Scholarly Kitchen, 9 Jul 2019.
14. Irfanullah, H.Md. (2019). Digital Bangladesh: How research data defines development. The Scholarly Kitchen, 20 Nov 2019
15. Saha, S.K., & Preeti, A.A. (Eds.). (2019). Proceedings of 3rd CSD Annual Conference on Sustainable Development 2018. Dhaka, Bangladesh: Center for Sustainable Development (CSD). ISBN: 978-984-34-6374-6



Dr. Samiya Selim is an Associate Professor and Director of the Center. Her specialization is in the areas of Social-Ecological Systems, Climate Change Adaptation, Sustainable Livelihoods, Coastal Zone Management, and Biodiversity Conservation. Her work addresses the Sustainable Development Goals (SDGs)- 4: Quality Education, 5: Gender Equality, 7: Affordable and Clean Energy, 10: Reduced Inequalities, 11: Sustainable Cities and Communities, 12: Responsible Consumption and Production, 13: Climate Action, 14: Life Below Water and 15: Life on Land and 17: Partnership for the Goals

Dr. Haseeb Md. Irfanullah is a part-time Visiting Research Fellow of the Center. His specialization is in the areas of Biodiversity Conservation, Natural Resource Management, Environmental Governance, Climate Change Adaptation, Disaster Risk Management, Research System & Strategy, and Research Translation for Policy and Practice Influencing. His work addresses the SDGs- 1: No Poverty, 4, 13, 14, 15 and 17



Dr. Rumana Sultana is an Assistant Professor-cum- Research Associate at the Center. Her specialization is in the areas of Environmental Sustainability, Climate Change Adaptation, Natural Resource Management, Disaster Risk Management, and Geographic Information System (GIS). Her work addresses the SDGs- 4, 5, 11, 13, 14, 15 and 17

Dr. Shantanu Kumar Saha is an Assistant Professor-cum- Research Associate at the Center. His specialization is in the areas of Poverty Alleviation, Women Empowerment, Climate Change Adaptation, Diffusion of Innovation, Cultural Ecosystem Services, and Campus Sustainability. His work addresses the SDGs- 1, 4, 12, 13, 14, 15 and 17



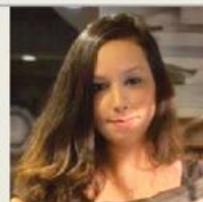
Mr. Joy Bhowmik is a Lecturer-cum- Research Associate at the Center, His specialization is in the areas of Climate Change Related Loss and Damage, Climate Change Adaptation, Campus Sustainability, Environmental Education, Biodiversity and Conservation, and Disaster Management and Risk Reduction. His work addresses the SDGs- 4, 7, 12, 13, 14, 15 and 17

Dr. Oliver Scanlan is a Research Fellow at this Center. He is specialist in climate change and its implications for global security. His work addresses the SDGs 4, 10 and 13



Ms. Basundhara Tripathy is a Visiting Researcher cum Assistant Professor at the Center. Her research interests include climate change adaptation and disaster risk reduction, climate induced human mobility, food security, education, religion, tribal culture, anthropology-development nexus, and environment. She is now on study leave to pursue her PhD.

Ms. Sayeda Zeenat Karim is Research Associate-cum-Guest Lecturer at the Center. Her area of specialization includes public policy and gender, and conflict and security. Her work addresses the SDGs- 3: Good Health and Well-Being, 4, 5, 10, and 17



Mr. MD Wahed Alam Ratan is Research and Admin Officer at the Center.



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