

NEWSLETTER

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SPARC



SOCIAL POLICY ANALYSIS
AND RESEARCH CENTRE

Celebrating 15 years of service

SOCIAL POLICY ANALYSIS
AND RESEARCH CENTER

2006 -2021


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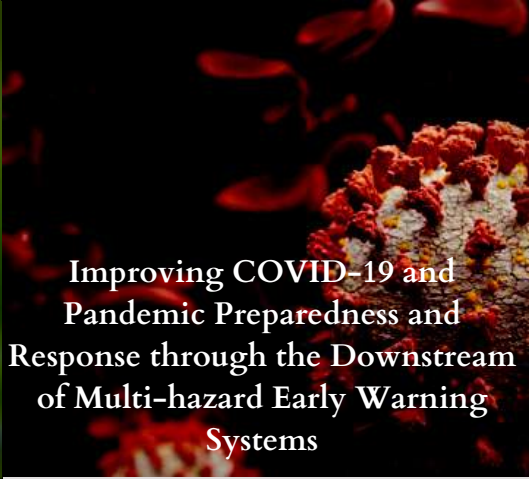
Certificate Course in Urbanization,
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What is SPARC?

The Social Policy Analysis and Research Center (SPARC) is affiliated to the Faculty of Arts, University of Colombo. It functions as a major focal point within the Sri Lankan university system to explore critical areas of social and economic development. Activities of SPARC are centred on research, training, advocacy and networking.

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Dear readers and colleagues,

Through its past activities and projects the Social Policy Analysis and Research Center (SPARC), Faculty of Arts, University of Colombo has made a considerable amount of contributions to research and knowledge building with the ultimate aim of contributing to social wellbeing. SPARC conducts its research in a selected number of focal areas which are reviewed from time to time- keeping in line with new experiences and focusing on emerging critical issues that require expert attention. The year 2021 has witnessed a continuation of the COVID-19 pandemic situation, challenging the processes of SPARC. The administrative processes of the center and data collection processes of projects have been affected, requiring new ideas and changes in procedures to achieve project targets. A focal area of research on an emerging critical issue m-

-aterialised in the past year through the project titled "Improving COVID-19 and Pandemic Preparedness and Response through the Downstream of Multihazard Early Warning Systems". Other focal research areas of SPARC include social integration of youth, community-based poverty monitoring, conflict-sensitive development planning, decent work and socio-economic security, democratisation and local governance, globalisation, psychosocial assessment of development and humanitarian interventions, corporate social responsibility, natural hazards and early warning systems. The involvement of the SPARC team in both international and local research projects have benefitted local academia, research staff, policy and decision-makers, students and the general public via various methods such as training programmes, intervention programmes, policy documents and recommendations, workshops, international and local conferences, reports, and needs assessments.

Despite the challenges provoked by the pandemic situation, SPARC continued its research collaborations. One of its latest researches titled "Built Environment leArning for Climate adaptation (BEACON)" is an international project to address climate change. BEACON is a collaborative research project (co-funded by the EU Erasmus+ programme) that seeks to study the impact of the built environment and climate change in coastal regions. It is a partnership among University of Colombo, the Global Disaster Resilience Centre - University of Huddersfield, Lund University, University of Moratuwa, Università' Malta, and the Universidad de Cantabria. University of Huddersfield plays the role of the lead partner. The main project focus lies in climate change and Climate Change Adaptation (CCA). Climate change is the increase in global temperatures due to the greenhouse effect. On the other hand, CCA is the process of adjusting to the actual or expected climate and its effects to moderate harm or exploit beneficial opportunities. The three-year research initiative of BEACON aims to develop trans-disciplinary and innovative research-based learning in the built environment to tackle climate

change in coastal regions. The recently concluded output of the project, "climate change impact on the coastal built environment", was a literature review on current climate change impacts and predicted impacts on the coastal regions of countries under study. The team at the Social Policy Analysis and Research Center (SPARC), University of Colombo collaborated with the Faculty of Engineering, University of Moratuwa (UOM), to produce a country-specific report on the climate change impact on Sri Lanka's coastal built environment. The finding of this report proved that Sri Lanka faces a considerable risk from climate change-related impacts and disasters due to its geography, and developing status. Trends in temperature, shifts in precipitation patterns, Sea Level Rise (SLR), surge flooding, coastal erosion, saltwater intrusion, rising water tables, changes in coastal ecosystems, and an increase in extreme climatic events are among the impacts. Socio-economic impacts include livelihood and employment loss, increase in poverty levels, deterioration of human health, re-emergence of conflicts, and increase in human mobility due to the need of relocating households and businesses. The coastal built environment is under threat of destruction, damage and inundation. Urban residents, especially the urban poor are predicted to be increasingly vulnerable to hazards such as flash floods and heatwaves.

The study also found that Sri Lanka has a hazard profile, a functioning Early Warning Dissemination System, and has oriented its national policies and action plans with post-2015 global standards but the lack of trust in authorities, awareness, knowledge building and dissemination have led to the vulnerability of coastal communities. It is also clear that there is a need of creating a nexus bet-

-ween adaptation of the built environment to climate change whilst providing sustainable, eco-friendly and affordable built environment resources. The project will move forward to develop a coherent framework to integrate the requirements of the Paris Agreement with the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR), recognise the opportunities for climate adaptation in the coastal built environment in line with this framework, and understand skill gaps in climate adaptation in the built environment. Integrating concepts of Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) within the context of the coastal built environment and climate change will be a useful achievement of this project. The final outcome of this project would be trans-disciplinary and innovative research-based learning in the built environment that will provide built environment professionals with valuable knowledge and skills that can be incorporated into practice.

This edition of the newsletter is a compilation of articles that focus on the ongoing projects and activities of SPARC. The SPARC team is grateful to everyone who has been part of its journey of excellence and looks forward to reaching greater heights in the future.



Dr. Nishara Fernando

Certificate Course in Urbanization, Climate Change, Displacement and Relocation

Certificate Course in Urbanization, Climate Change, Displacement and Relocation 2020/2021
The Social Policy Analysis and Research Center
University of Colombo

Course Outline:

- New trends in urbanization and climate change
- Urbanization induced displacement and climate induced displacement
- Various forms of relocation
- Models of relocation
- Urban development induced displacement and relocation
- Disaster-induced displacement and relocation
- Urban developments, vulnerable groups and sustainable livelihoods
- Relocation and resistance
- Voluntary, involuntary and forced relocation in the developing world
- Urban relocation policies and projects in Sri Lanka
- Successes and failures of urban relocation projects in Sri Lanka
- Urban relocation, secure communities and resilient cities

Eligibility Criterion:
(a) School leaving certificate (completed up to Grade NINE)
OR
(b) Completion of primary education with certified work experience equivalent to a minimum of two years
(c) be at least 16 years of age

Who Can apply?
Priority will be given to those working in relevant fields or in any of the following organizations - Urban Development Authority and Land Reclamation and Development Cooperation, Authorities and projects (Land Acquisition and Social Safeguard, Social Mobilize officials), Disaster Management Center, National Building and Research Organization, Department of Meteorology, Ministry of Mahaweli Development and Environment, INGOs and NGOs

Application Submission: The duly completed application should be sent to The Social Policy

Figure 1: The Certificate Course Flier

The Social Policy Analysis and Research Center (SPARC) of the Faculty of Arts, University of Colombo, provides a focal point within the Sri Lankan university system to integrate research, teaching, training, policy analysis and advocacy on critical areas of social and economic development. The center facilitates close collaboration between academics and institutions outside of the university system, including governmental as well as non-governmental agencies that are dealing with issues related to social policy.

With this enthusiasm, SPARC has launched a certificate course in the subject fields of urbanization, climate change, displacement and relocation titled "Certificate Course in Urbanization, Climate Change, Displacement and Relocation". In this certificate course, we present how increasing urbanization is an important phenomenon in the modern world with the use of statistics from the global, regional and Sri Lankan contexts. We explore how natural

hazards, urban development and climate change lead to significant changes in urban lives and livelihoods. We examine the consequences of these changes using concepts such as disaster-induced displacement, development-induced displacement and resettlement, and climate change mobility. In addition to the theoretical knowledge in this field, we are anticipating to elaborate on real-life scenarios, with the use of best practices and expert knowledge, taken from diverse dimensions. Though displacement is mainly caused by natural hazards and urban development in the world today, its irregularities are made complex by climate change. Relocation is used as a disaster risk reduction strategy for victims of natural hazards. Recent relocation models have been incorporated as an adaptation to the climate crises.

Best practices and also shortcomings that occur due to insufficient attention been paid to the vulnerabilities and unique needs of victims can be identified when studying various cases of relocation. The course covers all these important areas of study citing from a number of real-world relocation projects that have been executed in Sri Lanka and across the globe, eventually offering theoretical knowledge along with practical application of such knowledge to those in relevant fields.





Figure 2: The project logo

The course is introduced as an output of an Erasmus + programme: Capacity Building in the field of Higher Education of the European Union project titled “Integrating education with consumer behavior relevant to energy efficiency and climate change at the universities of Russia, Sri Lanka and Bangladesh (BECK).” The Vilnius Gediminas Technical University, Lithuania leads the project together with 14 partner universities in Europe and South Asia - University of Huddersfield; United Kingdom, Tallinn University of Technology; Estonia, Moscow State University of Civil Engineering; Russia, Kaliningrad State Technical University; Russia, University of Bologna; Italy, Peter the Great St.Petersburg Polytechnic University; Russia, University of Moratuwa and University of Ruhuna.



Munasinghaghe Keshani Darsha



Figure 3: The project team

Best Practices of Rebuilding Host and Displaced Communities Post-disaster and Conflict-induced Mass Displacements: A Built Environment Perspective

The Social Policy Analysis and Research Center recently compiled a "Guidance Note on Best Practice of Displaced Communities and Refugees Integration in the Built Environment". This was a combined validation report of the literature review and the primary data findings collected for the Output 3 of the project "REbuildingG AfterR Displacement (REGARD): Guidance Note on Best Practice of Displaced Communities and Refugees Integration in the Built Environment". The project is co-funded by the European Union Erasmus+ programme grant, and is led by the University of Huddersfield's Global Disaster Resilience Centre, based in the United Kingdom. They are joined by a consortium of five higher education institutions from four countries in Europe and Asia.

Output 1 of this project presented an in-depth analysis of the needs of the displaced communities while Output 2 highlighted the roles of the built environment in enhancing social cohesion between the host and the displaced communities. In furtherance to this research, Output 3 is a literature review intended to explore literature to identify what could be termed as 'Best Practices' in the strategies and initiatives of all stakeholders involved in the assimilation of the displaced communities in their host communities towards successful integration. Therefore, the literature review compiled by SPARC, University of Colombo consisted of seven key themes; housing needs, socio-cultural needs, social-infrastructure needs, economic needs, physical infrastructure needs, governance needs, and communities with special needs. Under the theme of community needs, the review focused on policies, mechanisms and best practices of relocation projects that have been conducted by the Government of Sri Lanka and other institutions. However, the findings of the literature review suggested that in the Sri Lankan context, the existing policies, best practices and mechanisms are more biased towards the housing needs, overlooking the other social and cultural aspects attached to such phenomena. Under the built environment perspective, it was evident that both government and other public, private institutions were prioritizing physical infrastructure over social infrastructure while building houses. The literature suggested a major lacuna in the existing policy framework in Sri Lanka where the needs of the displaced were looked at in a holistic perspective than just restricting the priority towards physical infrastructure. There is a need to build and implement specific policies and mechanisms related to each and every need for achieving best practices on resettlement projects. For exa-



Figure 1: The Project Flier

-mple, even though there is a Ministry for disaster management, there is no single authority responsible for addressing multiple issues pertaining particularly to victims of displacement. Moreover, some aspects of resettlement or relocation programmes have not been able to comply with the international standards, which ensure the physical, socio-economic as well as environmental well-being in social development in general and the development of the resettled or relocated communities in particular.

The purpose of the primary data findings of the combined validation report is to further validate the main findings of the literature review conducted under Output 3 under the above mentioned seven themes of community needs. The Expert Sampling technique was utilized to conduct structured interviews with a selected set of experts in the field of built environment. Dr. Pournima Sridarran (Lecturer, Department of Building Economics, Faculty of Architecture, University of Moratuwa), Ms. Indu Weerasoori (Former Deputy Director General at the Sri Lankan Urban Development Authority), Mr. Jude Prasanna (Scientist, Human Settlements Planning and Training Division, National Building Research Organization) and Mr. Anuruddha Vijekumara (Scientist, Human Settlements Planning and Training Division, National Building Research Organization) were interviewed as key informants to collect primary data and validate the main findings of the guidance note. The findings of the validation report successfully proved the findings of the literature review; that there is a need to consider the Built Environment aspect in resettlement projects, and a need to build and implement specific policies and mechanisms integrating other community-based needs apart from housing needs. For example, under the economic needs in Kegalle, most of the relocatees have a land incentive livelihood strategy. Hence, some relocatees tend to go back to their previous lands to engage in cultivation. Therefore, it was pointed out that it is important to design a ne-

-w policy that considers livelihood sensitive housing structures. Moreover, there is a lack of a community-driven approach in establishing social infrastructure. Further, the key informants emphasized the need for considering the diverse structural settings of the Sri Lankan society such as caste, religion, ethnicity, employment (formal or informal) or cultural beliefs such as folk practices.

The research team comprising Dr. Nishara Fernando (Researcher), Ms. Anuradha Senanayake (MPhil Researcher) and Ms. Maduri Wasana (Junior Researcher), submitted the final draft of the literature review, synthesis report and the validation report combined with primary data findings to the Lund University, Sweden in November 2020. The final report titled "Guidance Note on Best Practice of Displaced Communities and Refugees Integration in the Built Environment" was published internationally in December 2020.

(<http://regardproject.com/portal/index.php/outputs>).



Anuradha Senanayake



Maduri Wasana

Building Resilience in Tropical Agro-ecosystems (BRITAE)



Figure 1: The project logo

Agro-ecosystems are “natural ecosystems that have been modified to produce food and fibre while retaining many characteristics of natural ecosystems” (Hodgson, 2012). These systems are increasingly vulnerable to natural hazards such as floods and droughts which hamper agricultural production and result in huge economic losses. Given this challenge, the Building Resilience in Tropical Agro-Ecosystems (BRITAE) project plans to guarantee that all targeted Higher Education Institutions (HEIs) have research and innovative capacities to tackle challenges associated with building resilience in tropical agro-ecosystems. While evaluating agro-ecosystem based resilience in HEIs, strategies and frameworks will be developed to enhance the capacity for disaster risk reduction. The project spans over three years (2020 - 2023) and is funded by a prestigious international research grant (Ref. No. 610012-EPP- 1-2019-1-LK-EPPKA2-CBHE-JP) under the grant scheme of the European Union.

The University of Colombo leads Work Package 6 (WP 6) with Tallinn University of Technology, Estonia. The objective of WP 6 is to publicise the project progress, successes and outcomes as far as possible, in order to raise awareness across the field of Higher Education about Agro-ecosystem resilience research via various, innovative avenues, and to extend the impact of project results beyond the project duration. WP 6 is also designed to engage academics

and research staff in partner institutions to build their research capacities in the field of Agro-ecosystem resilience, and to develop links between HEIs and the industry. WP 6 intends to contribute to the implementation and shaping of national and European policies and systems by communicating project results and embedding them in the HEIs across the regions of programme and partner institutions. University of Colombo developed the first two Newsletters of the project which were main outputs of WP 6. In addition, the team also contributed towards compiling the overall "Dissemination and Exploitation plan" of the project outcomes. While developing and updating the project website on a regular basis, SPARC is also involved in the creation of other dissemination material such as flyers and social media items based on project activities and outcomes.

Furthermore, a MSc program will be offered as one of the major outcomes of the project. This MSc will consist of ten core modules and six optional modules. Each partner university will undertake module development according to their respective expertise, guided by module descriptions and a module matrix which highlight the Program Objectives that have to be met by each module. Academics from SPARC will contribute to the Master's degree program by developing course modules on agro-eco tourism and environmental laws and policies which will be offered as core and optional modules of the MSc program respectively.

Some of the main outcomes of the project thus far:

The Smart Agro-Eco system based Resilience Center for teaching, learning, research and dissemination (SAR Center)

A virtual education center was developed to provide teaching and learning materials, evaluation procedures, assignments and other required materials to complete courses. Training sessions and demonstrations for the website development of the SAR Center were conducted by academics of Vilnius Gediminas Technical University (VGTU) to develop an Adaptive Biometrics Examination System, an Adaptive Examination System, Big Data Mining,

an Affective Tutoring System, Computer learning systems, Adaptive MOOCs and to improve the awareness on obtaining access to e-sources.

The BRITAE framework: a guide to module development, gaps, resources and capacities of current HEIs. The framework was developed in the following manner:

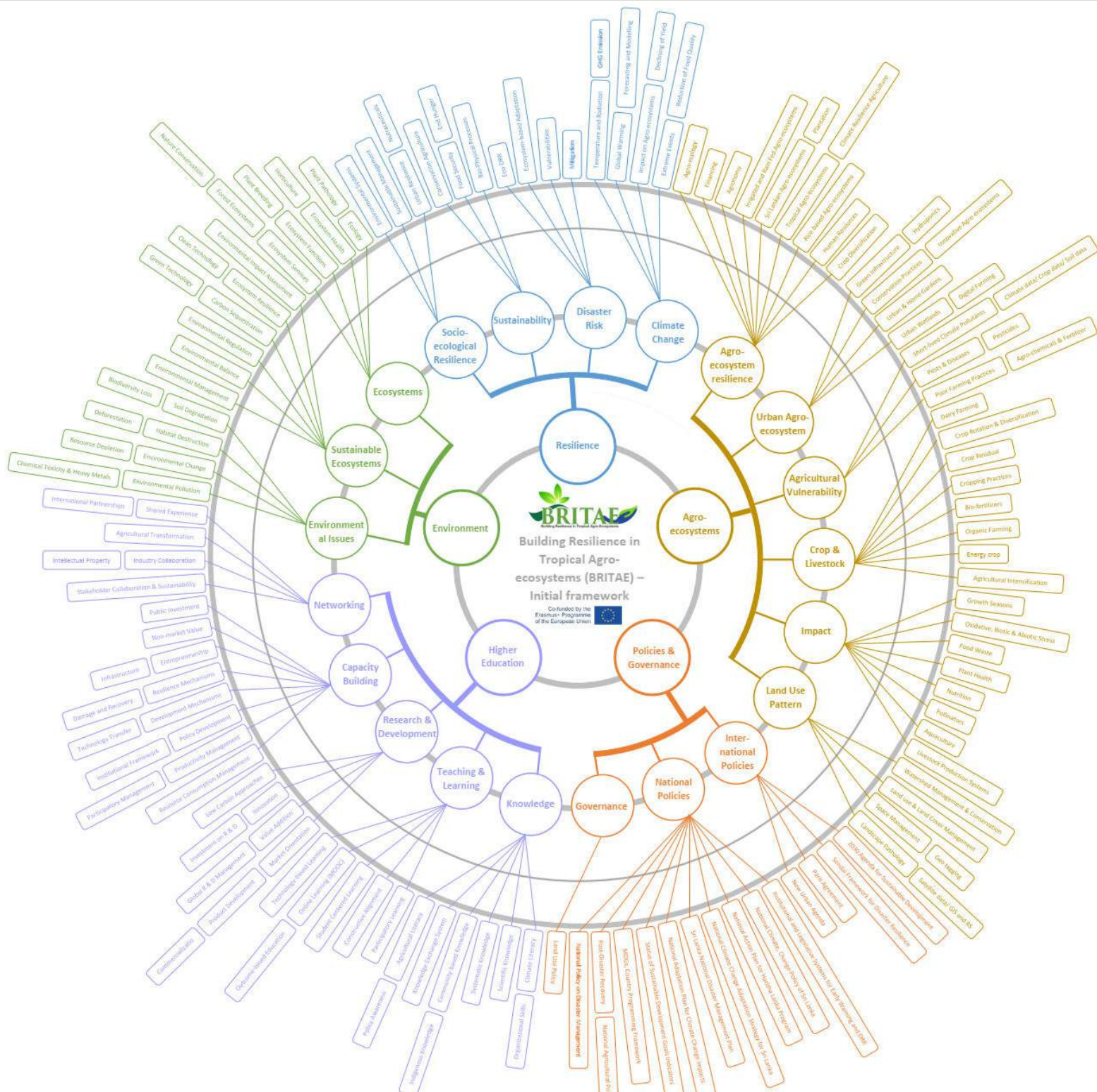


Figure 2: The BRITAE framework

- (i) Two literature reviews done by University of Ruhuna, Sri Lanka and University of Huddersfield
- (ii) A survey conducted in faculties /departments such as agriculture, technology, science, food science, livestock and fisheries, geography and civil and environmental engineering in 12 Sri Lankan universities
- (iii) Institutional reports from BRITAE partner universities in Sri Lanka
- (iv) A focus group discussion

The BRITAE framework identifies existing practices, research interests, innovations, links and gaps at both global and local levels. It was developed by aggregating all relevant concepts using a three-layer framework. The framework illustrates 151 concepts which are classified into five major areas such as resilience, agro-ecosystems, environment, policy and governance, and higher education. These five are in the first layer. There are 21 key areas illustrated in the second layer of the framework and the third layer consists of 125 concepts that are linked to the second layer based on the most suitable connectivity.

A Professional Development Training workshop was held on 14th May 2021 from 1.30 –6.30 p.m. via zoom. The workshop consisted of several important sessions for academics including guidance on effective proposal writi-

-ng and acquiring foreign-funded research projects, online teaching, learning and evaluation procedures in MOOCs, development of interpersonal, intrapersonal, and institutional research skills, research solicitation and communication skills, European best practices for university Industry collaboration, quality assessment and accreditation of foreign-funded projects and innovation, commercialization and intellectual property rights.

BRITAE which is a capacity development project by nature thus aims to develop existing skills and knowledge in the field while addressing identified gaps related to building resilience in tropical agro-ecosystems.



Belinda Wise

Improving COVID-19 and Pandemic Preparedness and Response through the Downstream of Multi-hazard Early Warning Systems

Widespread severe disruptions caused by COVID-19 within a shorter period have made evident that global preparedness planning pertaining to pandemics needs major improvements. COVID-19 has more than ever showcased the systemic nature of risk by causing disruptions not only to discrete parts of a system but by dismantling the entire system. Similarly, the pandemic and its cascading effects have exacerbated vulnerabilities caused by other hazards, giving rise to compound vulnerabilities. Countries have been propelled to forecast and prepare for complex hazard scenarios where other hazards such as floods and landslides occur concurrently with COVID-19. The necessity of doing so stems from the possibility for COVID-19 protocols to create ambiguity or confusion with regards to other hazard warni-

-ng services, as well as with response actions like evacuation for tsunami.

The project: 'Improving COVID-19 and pandemic preparedness and response through the downstream of multi-hazard early warning systems' seeks to better understand the potential impact of a pandemic-natural hazard hybrid scenario and improve early warning and preparedness for such an event. This project is a collaborative effort of the Global Disaster Resilience Centre, School of Applied Sciences, University of Huddersfield, UK; University of Colombo, Sri Lanka; University of Moratuwa, Sri Lanka and Ministry of Health, Sri Lanka.

The project is carried out in six work packages that align with objectives of the study and aims

Plenary Session 2
Integrating Epidemic and Pandemic Preparedness into Disaster Risk Reduction

University of HUDDERSFIELD Inspiring global professionals

15th December 2020
16:30 - 18:00 IST (Indian Standard Time) - virtual (zoom) event

Short description
The unprecedented effects of the COVID-19 outbreak have engulfed almost the entire world. The health sector has been overwhelmed devastatingly. Over 55 million cases have been reported along with a death toll exceeding 1.3 million worldwide. Extending beyond the health sector, diverse effects of COVID-19 have cascaded into socio-economic implications. COVID-19 has evidenced the systemic nature of risk dismantling not only discrete parts of a system but also leading to the failure of the entire system. This has stressed the need for integrating biological hazards into Disaster Risk Reduction (DRR) planning while harping on the significance of emulating a multi-sectoral and multi-hazard approach to preparedness planning for biological hazards. It is clear that the world needs a quantum shift in the approach and architecture in pandemic preparedness.

Register at: <https://bit.ly/mhewpl2>

Session Chair
Dr Nishara Fernando
Senior Lecturer, University of Colombo, Sri Lanka

Panelists
Prof. Dilanthi Amarathunga
Global Disaster Resilience Centre, University of Huddersfield, UK
Dr. Hemantha Herath
Deputy Director General of Public Health Services, Sri Lanka
Major Gen. Sudantha Ranasinghe
Director General, Disaster Management Centre, Sri Lanka
Dr. Chandana Siriwardana
Senior Lecturer, University of Moratuwa, Sri Lanka

Project Researchers
Ravindu Jayasekara
Naduni Jayasinghe

Figure 1: Flyer on the Plenary Session: Integrating Epidemic and Pandemic Preparedness into Disaster Risk Reduction

at achieving a number of nationally and globally significant outcomes. Primarily, the project team is involved in developing a conceptual framework on the key actors and processes involved in COVID-19 and other pandemic warning and dissemination processes. The team also intends to host public engagement events and round table dialogues with the objective of presenting the key findings of the study to public officials and policy makers and validating the findings with inputs from relevant stakeholders. Further, the findings of the study will be disseminated through at least five high quality, peer-reviewed multi-institution, multi-disciplinary journal papers in high-impact journals leading to a briefing paper and a policy dialogue on current status and recommendations on the integration of pandemics within the national/local disaster risk reduction strategies. The project also aims to develop a vision paper that sets out the future integration of pandemics into a Multi-Hazard Early Warning Environment. In addition to this, the project team expects to contribute to academia by delivering in at least four oral presentations in leading international conferences. The project team recently participated in several conferences delivering presentations based on insights derived from the study so far. For instance, a plenary session titled 'Integrating Epidemic and Pandemic Preparedness into Disaster Risk Reduction' was held virtually as part of the International Symposium on Multi-hazard Early Warning and Disaster Risk Reduction on 15th December 2020 from 4: 30 pm to 6pm. Taking into account the unprecedented effects of COVID-19, said plenary session facilitated a discussion on the relevance and importance of disaster risk reduction planning in biological hazard contexts. The session was chaired by Dr. Nishara Fernando, Senior Lecturer, University of Colombo, Sri Lanka while Prof. Dilanthi Amaratunga, Director, Global Disaster Resilience Centre, University of Huddersfield, UK; Dr. Hemantha Herath, Deputy Director General of Public Health Services, Sri Lanka; Major General Sudantha Ranasinghe, Director General, Disaster Management Centre, Sri La-

-nka and Dr. Chandana Siriwardana, Senior Lecturer, University of Moratuwa, Sri Lanka contributed to the session as panellists. A detailed summary of the facts and arguments presented in this plenary session were published as a position paper titled 'The Integration of Epidemic and Pandemic Preparedness in Disaster Risk Reduction Planning in Sri Lanka' authored by Prof. Dilanthi Amaratunga, Prof. Richard Haigh, Dr. Nishara Fernando, Ms. Naduni Jayasinghe, Dr. Chandana Siriwardana and Mr. Ravindu Jayasekara.

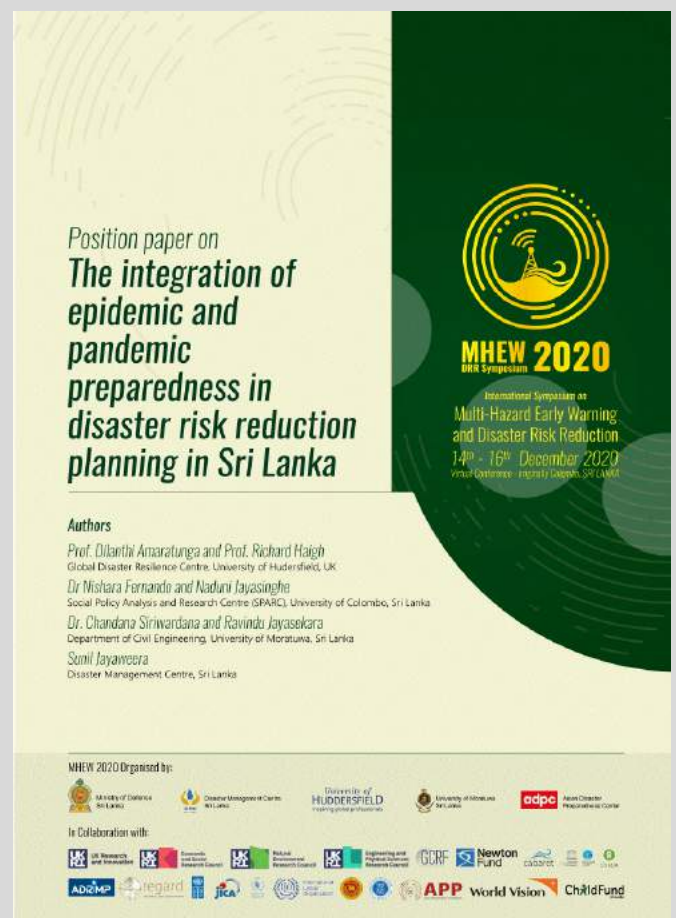


Figure 2: Cover Page of the Position Paper on the Integration of Epidemic and Pandemic Preparedness into Disaster Risk Reduction

Similarly, a national conference titled 'COVID-19: Impact, Mitigation, Opportunities and Building Resilience' was held on the 27th and 28th of January 2021. The conference was organized by the National Science Foundation, Sri Lanka. As part of project activities, two abstracts titled: 1) 'Settling the Ripples: An Examination of Sri Lanka's Approach to Addressing Cascading Impacts of the COVID-19 Pandemic' and 2) 'Towards Broaden-

-ing the Scope of Disaster Risk Reduction: An Exploration of How Epidemic and Pandemic Preparedness is Currently Embedded within Existing Disaster Risk Reduction Planning in Sri Lanka' were presented by Dr. Nishara Fernando and Ms. Naduni Jayasinghe respectively during the technical session themed 'Resilience'. The session was co-chaired by Prof, Dilanthi Amaratunga, Director, Global Disaster Resilience Centre, University of Huddersfield, UK and Dr. Nishara Fernando, Senior Lecturer, University of Colombo, Sri Lanka.

The abstract: 'Settling the Ripples: An Examination of Sri Lanka's Approach to Addressing Cascading Impacts of the COVID-19 Pandemic' was published as a book chapter in the book volume titled 'COVID-19: Impact, Mitigation, Opportunities and Building Resilience: From Adversity to Serendipity - Perspectives of global relevance based on research, experiences and success in combating COVID-19 in Sri Lanka'. This book volume was launched in July 2021.



Figure 3: A Presenter Presenting an Abstract During the Session Themed 'Resilience' at the Conference Titled 'COVID-19: Impact, Mitigation, Opportunities and Building Resilience'

Similarly, the abstract: 'Towards Broadening the Scope of Disaster Risk Reduction: An Exploration of How Epidemic and Pandemic Preparedness is Currently Embedded within Existing Disaster Risk Reduction Planning in Sri Lanka' has been accepted to be published as a book chapter in the book volume titled 'Multi - Hazard Early Warning and Disaster Risk Reduc-

-tion' edited by Professor Dilanthi Amaratunga, Professor Richard Haigh and Dr. Nuwan Dias.

This project will help Sri Lanka and the wider region to better prepare, respond and recover from disruptions caused by pandemic threats. The study results will influence the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) on approaches to assessing tsunami hazard preparedness and priorities for capacity development of member states, and benefits will extend to the 28 member states of the Indian Ocean Tsunami Warning and Mitigation System of which 23 are Development Assistant Committee (DAC) member countries. Further, the results will change the understanding and attitudes of Sri Lanka's national and subnational actors towards the impact of COVID-19 on the response capabilities for other hazards. It will change decision-making and behaviour of these actors through improved standard operating procedures for early warning targeting natural hazards/pandemic hybrid scenarios. In doing so, the project will significantly contribute to Sri Lanka's progress in achieving Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, particularly goal 13: 'Climate action', goal 11: 'Sustainable cities and communities' and goal 10: 'Reducing inequalities'.



Naduni Jayasinghe

Built Environment leArning for Climate adaptatiON (BEACON)



Figure 1: The project logo

Climate change is a contemporary crisis affecting much of the world. It can be defined as the increase in global temperatures due to the greenhouse effect caused by the increased emission of greenhouse gasses through anthropogenic activities.

The Intergovernmental Panel on Climate Change (IPCC) special report confirms that climate change is already affecting people, ecosystems, and livelihoods worldwide. The impacts of climate change such as the rise in sea level, climate-related disasters and spread of diseases, are predicted to intensify. Coastal areas are argued to be more vulnerable because they are impacted by Sea Level Rise (SLR), which accelerates coastal erosion. The built environment of coastal regions will be vulnerable to both coastal erosion and extreme hazards. Hence, there is a need for increasing resilience of the coastal built environment to withstand predicted climate change impacts. Studies have shown that there are knowledge gaps in relation to both risks and adaptation within the context of the built environment in coastal areas.

BEACON is a collaborative research project co-funded by EU Erasmus+ programme that seeks to study built environment and climate change impact in coastal regions. BEACON is a partnership among the Global Disaster Resilience Centre - University of Huddersfield, Lund University, University of Moratuwa, Università ta' Malta, University of Colombo and the Universidad de Cantabria. The University of Huddersfield plays the role of lead partner of the project.

The project objectives, leading up to development of a trans-disciplinary and innovative research-based learning in the built environment to tackle climate change in coastal regions are as follows;

- Identifying climate change impact on the built environment in coastal regions.
- Developing a coherent framework for integrating the requirements of the Paris Agreement with the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) in the context of the impact of climate change on the built environment in coastal regions'.
- Recognising the opportunities for climate adaptation in the coastal built environment in line with the coherent framework.
- Understanding skill gaps in climate adaptation in the built environment to tackle climate change in coastal regions.
- Developing trans-disciplinary and innovative research-based learning to improve competencies in climate change adaptation in the built environment in coastal regions.

Project output 1, a literature review on “climate change impact on the coastal built environment” was initiated by the lead partner of the project, the University of Huddersfield, in March 2021. The project partners were expected to produce country-specific reports on this research area. The team at the Social Policy Analysis and Research Center (SPARC), University of Colombo (UOC), collaborated with the Faculty of Engineering, University of Moratuwa (UOM), to produce a country-specific report on the climate change impact on Sri Lanka's coastal built environment. The report was submitted to the lead partner on the 30th of April. The findings of the report included impacts of climate change in the coastal regions of Sri Lanka, under the categories of physical, socio-economic, governance, and infrastructural. Risks, vulnerabilities, exposure to hazards, adaptation needs, and gaps in both the knowledge base and literature were identified. These themes were thoroughly scrutinised at the steering committee meeting held on the 30th of June, 2021.

Based on the themes identified as part of output 1, the project will advance to output 2, which is a synthesis report on opportunities and constraints for integrating the requirements of the Paris Agreement with the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR) in the context of built environment in coastal regions. SPARC is expected to lead work package 7 which will include the development of the competency framework for built environment professionals to tackle climate change in coastal regions. However, the SPARC team would contribute considerably to the other outputs as well.

Integration of the concepts of Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in relation to the coastal built environment, is an expected outcome of this project. Scholars have noted the necessity to integrate the concepts of DRR and CCA, as both are used to reduce vulnerability and thereby contribute to the creation of a resilient environment. Built environment professionals have to be well informed and capable enough to tackle climate change in coastal regions. Hence, it is important to identify the knowledge, skills, and competencies needed to tackle climate change and related disasters in coastal regions.

The development of trans-disciplinary and innovative research-based learning in the built environment through the project will further support in enhancing the knowledge base of built environment professionals as well as academia and policy makers. These outputs will inform policy and will provide direct input towards national and local governments, international organisations, non-profit organisations and built environment professional bodies to understand the issues related to climate change adaptation in the built environment in coastal regions.



Chamika Wijesuriya