Issue 2



# NEWSLETTER

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#### Editorial

Dear colleagues,

The devastation caused by natural and manmade disasters is not alien to us living in today's day and age. In fact, alarming statistics reflect the impact of natural disasters on communities. For an example, Sri Lanka suffered from a cycle of hydrometeorological disasters almost a decade ago due to droughts and flood incidents that occurred within a few months of each other, affecting the same vulnerable communities and eroding the capacity to cope. In January 2013, floods affected 10 districts in Sri Lanka, many of which were earlier in the clutches of drought. In the subsequent year, the drought affected over 1.8 million people in 16 districts of the country, including Mannar, Vavuniya, Mulaitivu, Trincomalee, Batticaloa, Puttlam, Kurunegala, Anuradhapura and Polonnaruwa. Both natural events resulted in close to 750,000 people being vulnerable to food insecurity - a condition that was worsened by low rainfall until October 2014. Concerns of food and social security and related social issues have, therefore, arisen. In addition to the impact on human lives and assets, disasters can have adverse consequences on the natural environment and ecosystems. These can have immediate to long-term effects on populations whose life, health, livelihoods and wellbeing depend on a given environment or ecosystem. As a result, pre-existing vulnerabilities may be exacerbated, or worse, new vulnerabilities and risk patterns may emerge, especially in circumstances where there are cumulative impacts due to recurring natural hazards.

The interrelationship between natural and human societies are revealed by Socio-Ecological Systems (SES) which are "Coherent systems of biophysical and social factors that regularly interact in a resilient, and sustained manner" (Redman et al. 2004). The challenges that impact such systems can be addressed by adopting strategies to enhance resilience. Socio-ecological resilience is the capacity to adapt or transform in the face of change in social-ecological systems, particularly unexpected change, in ways that continue to support human well-being (Chapin et al. 2010, Biggs et al. 2015).

Thus, the project "Building Resilience in Tropical Agro-ecosystems" is one such initiative of bridging certain gaps in the field of agro-ecosystem resilience. The project is well underway and partners work towards delivering its outcomes in an enthusiastic manner. The following pages unfold some of the main activities that have been undertaken thus far. We hope that you will be well informed and gain sufficient insight about the project through this issue.

Dr. Nishara Fernando University of Colombo

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### of the European Union **DEVELOPMENT OF SPECIFICATIONS AND CERTIFICATION RULES FOR QUALITY ASSURANCE OF JOINT MASTER PROGRAM MODULES**

Massive Open Online Courses (MOOCs) are created as part of the project BRITAE and are offered by project partners or delivered in a particular virtual environment as digital media. Specifications have been prepared to ensure that MOOCs will meet the quality standards that were mutually agreed upon by project partners.

For the process of quality assurance of the developed MOOCs, the project has incorporated inputs from the OpenupEd quality process, Manual for Quality Assessment of E-learning, The European Association for Quality Assurance in Higher education (ENQA) and Sri Lanka Qualifications Framework (SLQF).

According to the guidelines stated in the SLQF, the proposed BRITAE Master's degree program would have four basic exit points

- Postgraduate Certificate Level with 20 credits
- Postgraduate Diploma Level with 26 credits
- 1 year MSc (including 37 credits along with a directed study)
- 2 years MSc (including 60 total credits along with a 1 year research project).

A report was compiled on the specifications and certification rules for the quality assurance of joint Master program modules. It comprises of two sections, development of specifications rules with guidelines for the quality assurance of BRITAE MOOC modules and the Sri Lanka Qualifications Framework (SLQF).

The report clearly discusses general provisions,

MOOC submission for assessment, approval of MOOC materials, final provisions, review of MOOC materials, assessment questionnaire for MOOC materials and quality processes and benchmarks from OpenupEd, manual for quality assessment for E-learning (2016), ENQA report (2018) and SLQF.

The developed MOOCs will be assessed according to a uniform procedure. The assessment of MOOCs will be done by a MOOC quality assessment procedure to determine the extent to which they meet certain requirements set forth by project partners.

Approval for MOOC materials will be done by a committee nominated by project partners. The quality of MOOC materials shall be assessed based on a standard assessment questionnaire prepared by the committee itself.

The developed MOOCs will then have to be approved by the MOOC Quality Assurance Committee of the BRITAE project, Internal Quality Assurance Centre (IQAC) of Faculty of Agriculture/ University of Ruhuna, Faculty Board of Faculty of Agriculture/University of Ruhuna, Centre for Quality Assurance (CQA) of University of Ruhuna, from two experts, Senate of University of Ruhuna and finally from the University Grants Commission (UGC) of Sri Lanka respectively.

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Another set of institutional reports were compiled by Sri Lankan partner universities, reflecting upon the existing curriculum, potential and gaps related to agro-ecosystems resilience. The output of these reports and a roundtable discussion was instrumental in developing the BRITAE framework. Key concepts were classified under the BRITAE framework in support of curriculum development. The next steps will be to identify relevant areas for agro-ecosystem resilience and developing course modules.

The BRITAE framework has incorporated 151 concepts under a three-layered frame. There are five key areas classified as first order concepts; agro-ecosystems, resilience, policies and

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# THE **BRITAE FRAMEWORK**

With the successful completion of work package governance, higher education, and environment. one, University of Ruhuna, Sri Lanka and University The second layer consists of 21 concepts which of Huddersfield, United Kingdom (co-leads of are classified under these five major areas. WP1) compiled several project outputs including two literature review reports, a survey report, an institutional report, a BRITAE framework report and a report on the specification and qualification framework. This article describes the process of developing the framework, while also discussing its features.

The BRITAE framework has input from several tasks that were executed by WP1 partners. University of Ruhuna compiled the first literature review while the second was compiled by University of Huddersfield. The initial literature review captured the essence of Sri Lankan agro-ecosystem resilience and higher education while the extended literature review reflected on the global perspectives. A survey was conducted among Sri Lankan partner universities to understand the capacities and capacity gaps related to curriculum development.

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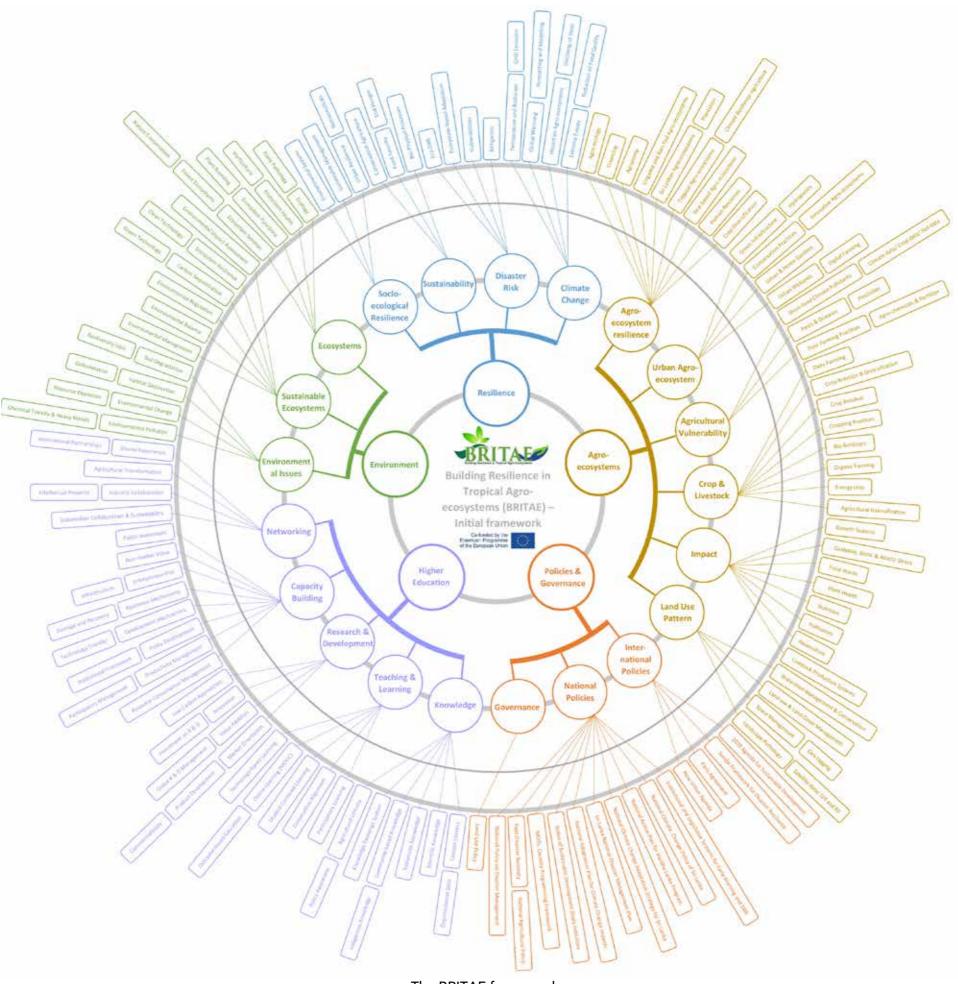


First order concepts	Second order concepts
Agro-ecosystems	Urban agro-ecosystems, agricultural vulnerabilities, crop and livestock, impact, and land use patterns
Resilience	International policies, national policies, and governance
Policies and governance	Socio-ecological resilience, sustainability, disaster risk, and climate change
Higher education	Knowledge, teaching and learning, research and development, capacity building, and networking
Environment	Environmental issues, sustainable ecosystems, and ecosystems

The framework will provide the basis for all future activities of BRITAE as the aim of the project is to develop joint curricula modules on building resilience in tropical agro ecosystem (BRITAE) in Sri Lankan universities. This will increase their capacity to continually modernize and enhance the quality and relevance of education for students to meet global market needs.

#### Compiled by: University of Huddersfield

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The BRITAE framework

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### STAKEHOLDER WORKSHOP

On 11 March 2021 Sabaragamuwa University hosted BRITAE's first stakeholder workshop in support of Work Package 2.1: the development of a common framework for the BRITAE curricula. Assisted by the University of Central Lancashire, the event was conducted via Zoom and saw 37 leading figures from Sri Lanka's academic, policy-making and industrial sectors join BRITAE members to discuss the proposed MSc Degree Programme in Building Resilience in Tropical Agro-ecosystems.

The objectives of the workshop were threefold; to introduce the BRITAE framework and explain the importance of the proposed MSc Degree Programme, to discuss and refine the draft Programme objectives, Programme learning objectives and modules that are aligned to the Programme, and to identify recommendations from stakeholders about successfully implementing the Programme. The additional benefit from staging an event of this sort is the promotion and dissemination of the BRITAE project's aims to, in this case, senior staff at organisations as diverse as the Ministry of Agriculture, Central Bank of Sri Lanka and the National Science Foundation. To gather many influential people together on what was a national holiday in the country was very pleasing and testimony to the great efforts put by the organisers of the workshop.

Workshop organisers Professors Achini De Silva, Esham Mohammed, and their team at Sabaragamuwa University also had the great pleasure of welcoming BRITAE project lead Senior Professor Champa Navaratne to address the attendees with her opening remarks. Thereafter, short presentations on each aspect of the MSc programme were given by members of the WP2 project team to introduce the list of draft PowerPoint displays, surveys being completed

objectives, learning objectives and modules that had previously been created with the insight and support of WP1 partners. The stakeholders were then given some time to complete online surveys relating to the proposals they had just learned about. Valuable technical support was provided by Chameera Randil and his team in making sure the online zoom workshop ran smoothly, by effectively adapting to emerging technology.

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Having been able to capture quantitative data through the online surveys, attention turned to gathering stakeholders' in-depth views about the proposed aspects of the MSc programme. In order to collect these data effectively, the stakeholders were assigned to smaller breakout rooms based on their respective expertise. A workshop facilitator and a note-taker were assigned to each room with attendees having previously agreed that the discussions could be recorded. A list of the objectives, learning objectives or modules was displayed on the breakout room home screen to remind delegates of the subject, along with links to the online surveys to maximise the completion rate. The debate in each room was lively, with many thoughts offered as to what the programme should be aiming to provide, how it should achieve this and the reception such suggestions would receive.

After all the surveys and breakout room sessions were completed, a presentation on the most effective student-centered teaching methodology and techniques to deliver the programme was provided, followed by a facilitated whole group discussion. A particular strength of the workshop was the planning and timing of each stage, with presentations kept to relatively short, informative

inside five minutes each, and the breakout room discussions aiming for a maximum of fifteen minutes. To implement this took a great deal of pre-workshop consultation and planning, and the reward was an audience that stayed throughout the event, remaining engaged with the subject. Insight was gained on all sides during the day and clearly this event will have helped strengthen relationships for future dissemination activities.

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## ORIENTATION PROGRAMS AND PROFESSIONAL DEVELOPMENT WORKSHOP

Two orientation programs were held on 9th of April and 13th of May respectively via Zoom to strength the course structure of the BRITAE project. These programs were hosted by University of Ruhuna, the leading partner of the BRITAE project. The proceedings of the program were as follows. The leading partner of the BRITAE project. Academics from each local, Partner University namely University of Ruhuna (UoR), University of Moratuwa (UoM), University of Sri Jayawardenapura (USJP), Sabaragamuwa University of Sri Lanka (SUSL) and University of Colombo (UoC) participated in the program. Professor Guttila Jayasinghe from UoR welcomed all participants to the orientation program while Professor Champa Navaratne (project lead, UoR) introduced the project by mentioning the national and international partners, the objectives and work packages of the project, activities under each work package and the proposed modules for the Master's degree program. The participants were then given a brief idea about the Smart Agro-Eco system Resilience Center by Dr. Prabath Priyankara from UoR. Dr. Priyankara briefly introduced the SAR center, its resources, teaching and learning systems of SAR, Learning Management Systems (LMS), Management Information Systems (MIS), future training and constraints. The SAR center was introduced as one of the main outcomes of the BRITAE project It is a center for teaching, learning, research and development activities of postgraduate programs and is established in University of Ruhuna. The following resources of the SAR center facilitate communication, teaching and learning and research and methodology for users: a passive and active network, teaching aids, video conferencing, modeling and simulation, testing and analyzing and remote sensing. Prof.Arturas

Kaklauskas and his team from Vilnius Gediminas Technical University, Lithuania, then began the training session on the following teaching and learning components of the SAR system:

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- Adaptive MOOCs
- Affective video tutoring system
- Big data mining
- Adaptive biometric examination system
- Open-source materials

Ms. Anjala Dissanayake form UoR, then illustrated formats for each feature of the platform using examples. The training session concluded with administrative constraints which were soon to be resolved and a Q & A session where participants were allowed to raise questions about unclear areas or doubts.

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 writing and acquisition of 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. The workshop was very insightful and all participants benefited from the sessions.

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