**Towards Healthy Brazil: Sustainable Urban Nexus (Water-Energy-Sanitation) in the Tiete River Basin**

UK-Brazil Researcher Links Workshop

**UK Principal Applicant:** Dr Eric Cheung (Manchester Metropolitan University)

**Partner Country Principal Applicant:** Prof Norma Valencio (Federal University of São Carlos)

**Disciplines:** Transdisciplinary

**Dates and Venue:** 19 – 23 July 2021 (online, virtual workshop)

# Workshop Summary

Infrastructural systems (infrasystems) are entangled with social, technical and ecological systems at smaller and larger scales. How they are planned, implemented, managed, maintained and used has impact on sustainability outcomes. The transformation of national infrastructures, although usually implemented with the aim to improve human well-being, may carry adverse implications for human health, social relations and environmental sustainability. Yet, there is a lack of systematic and integrated evidence on the sustainability outcomes of transitions in infrasystems.

The workshop will highlight the need for sustainable infrasystems in dense urban environments (SDG12); reduce health risks associated with the lack of appropriate infrastructure (SDG3) enhance the availability and sustainable management of water and sanitation for all (SDG6) ensuring access to affordable, reliable sustainable and modern energy (SDG7) building resilient infrastructure and cities (SDG9, SDG11).

Workshop streams will be concerned with (A) infrasystems as complex human ecosystems and (B) understanding tools for evidence-based decision making at different levels of governance and in professional practice:

1. Infrasystems will be discussed as:
	1. resource systems, including ecosystem resources, such as energy, water, nutrients; cultural resources, such as organisations, beliefs and myths; and socio-economic resources, such as information, labour and capital.
	2. human social systems, including social institutions, such as health, justice and governance; social cycles across different scales (physical, individual, organisational, etc.); and systems of social order, including identity (age, gender, class), norms (formal, informal) and hierarchies (wealth, power).
2. Complex modelling and analytical techniques will be discussed for their potential to generate models and to support the development of technical applications (practical tools) for decision-making.

Transdisciplinary activities will involve non-academic stakeholders (e.g. policy-makers, government and others within the public, private and third sectors). They will be designed to build an interdisciplinary foundation towards informing decision making processes.

Workshop outcomes will have the potential to benefit research communities with interest in infrasystem transitions, in rapidly urbanising Brazil and crosscutting themes. They will facilitate informed decision making in the near future and, in the long term, improve the lives of millions of people who rely on the provision of and access to sustainable urban infrasystems.

The programme, Newton Fund Researcher Links, in collaboration with FAPESP, provides opportunities for early career researchers from the UK and São Paulo state, to interact internationally, learn from each other and explore opportunities for building long-lasting research collaborations.

As part of this programme, we are now recruiting early career researchers to participate in the above workshop. We welcome applications from different areas of knowledge including but not limited to sociology, ecology, biology, environmental management, and urban planning to explore sustainable infrasystems from different perspectives. Please find more details on the workshop and the application form below.

**The deadline for the application is 8 July 2021**

# Workshop Aims

The overall aim of this workshop is to enhance our understanding of related human-environment interactions and their sustainability outcomes. It will advance systems approaches for infrastructure (water, energy, sanitation) which situate basic human functions within wider human ecosystems of critical social, economic and environmental resources and social institutions, cycles and order.

Workshop contributions will be concerned with different infrasystems (e.g. water and sanitation systems) in different environments (e.g., urban, peri-urban, rural) Workshop contributions and activities will have five interlinked objectives:

* To understand the components of different types of infrasystems as well as how infrasystems interact with other social, technical and environmental systems
* To reveal the interactions between different infrasystems and the Sustainable Development Agenda
* To identify knowledge needs in collaboration with non-academic stakeholders and co-design an agenda for the co-development of infrasystems-related informed decisions.
* To build transdisciplinary capacity in infrasystems research, design, planning, implementation, management and maintenance
* To discuss new strategies to be more resilient beyond environmental crises that involve these three systems.

The collaborative workshop will focus on the Tietê River Basin (Brazil) as a prime example of urban transformation across different stages of infrastructural development.

# Workshop Programme

The workshop will be held online over five days in a week from 19 July to 23 July 2021. The virtual workshop was made with consideration to local times in both UK and Brazil with a combination of pre-recorded and live sessions.

Day 1: begins with an introduction of the workshop programme and a speed-networking session, followed by three keynote speaker talks (recorded) delivered by the coordinators and mentors, a ten minutes break, a 30 minutes ECRs interactive session (live) organised as Q&A for the keynotes, followed by a 30 minutes skills session (live)

Day 2: starts with two invited speaker talks (recorded), followed by three keynote speaker talks (recorded) delivered by the coordinators and mentors, a ten minutes break, a 30 minutes ECRs interactive session (live) organised as Q&A for the keynotes, followed by a 30 minutes skills session (live)

Day 3 & 4: each day begins with 15-min case study film (recorded) as an alternative to the site visits originally planned to infrastructure facilities in the Tiete River Basin, followed by 15-minutes stakeholder talk (recorded) from local government, environment agencies and official. Interactive discussion of the case study (live) is organised for 30-min to facilitate future collaboration, 20 minutes skills session, 20 minutes break followed by ECR sessions (parallel sessions will be organised depending on the number of participants), followed by ECR interactive session/Q&A with mentors (live).

Day 5: an early start with 15-min case study film (recorded) 15-minutes stakeholder talk (recorded), interactive discussion of the case study (live) 30 minutes lunch/coffee break followed by ECR interactive session/Q&A with mentors (live). A joint activities session to discuss to discuss outline research proposals, 20 minutes break, followed by a 90 minutes joint activities session to discuss workshop outputs towards collaborative joint publications. The virtual workshop will conclude with an opportunity for feedback and evaluation from participants.

Participants are encouraged to form collaboration networks and continue with the dialog through the project website as a portal for all participants to share information towards joint publications and to showcase the outputs derived from the workshop.

# Publication

Participants will have the opportunity to produce brief working papers for dissemination following the workshop; they will be assigned to 8-10 teams of 2-3 people and mentors will be allocated to each. The promising contributions from the workshops will be invited to produce papers to be submitted either individually to a range of academic journals or combined in a special issue.

# Application and Deadline

The full application below must be completed and submitted by 08 July 2021 (10 days prior to the workshop) via email to p.cheung@mmu.ac.uk (for candidates coming from British institutions) or to norma.valencio@ufscar.br (for candidates coming from São Paulo state institutions)

# Eligibility Criteria

* Applications must be submitted using the Researcher Links application form (provided at the end of this document).
* Application must be submitted before the above deadline.
* Participants must be Early Career Researchers: Early Career Researchers are defined as holding a PhD (or having equivalent research experience and having up to 10 years post-PhD research experience. They are equivalent to the ‘Recognised Researcher’ and sometimes ‘Experienced Researcher’ categories in the EU framework for researchers’ careers.
* Participants must have a research or academic position (a permanent post, research contract, or fellowship etc) at a recognised research institution either in the UK or in São Paulo state.
* Please note that participants are expected to attend all sessions of the workshop.
* English is the language of the event and candidates must have appropriate comprehension of English.

# Quality Assessment

* Experience and relevance of the applicant’s research area to the workshop
* Motivation and contribution to the aims of the workshop
* Description of the long-term impact expected through the participation in the workshop
* Ability to disseminate workshop’s outcomes

# Selection Procedure

* Eligibility check
* Quality assessment

# Notification of results

Applicants will be notified by email by 12 July 2021 (1 week prior to the workshop).

# Equal Opportunities

Equal opportunities and diversity are at the heart of the British Council’s cultural relations ambitions. While recognising that some research fields are dominated by one particular gender, Principal Applicants are encouraged to work towards an equal gender balance, promote diversity. They must not exclude applicants on the basis of ethnicity, gender, religious belief, sexual orientation, social status or disability. Participants’ selection undertaken by workshop organisers must not contravene this policy. Extra support to enable participation of Early Career Researchers with special needs will be given (please indicate such needs in the application form).

# About the Newton Fund

The Newton Fund builds research and innovation partnerships with 17 active partner countries to support their economic development and social welfare, and to develop their research and innovation capacity for long-term sustainable growth. It has a total UK Government investment of £735 million up until 2021, with matched resources from the partner countries. The Newton Fund is managed by the UK Department for Business, Energy and Industrial Strategy (BEIS), and delivered through seven UK delivery partners, which includes UK Research and Innovation (comprising the seven research councils and Innovate UK), the UK Academies, the British Council and the Met Office. For further information visit the Newton Fund website ([www.newtonfund.ac.uk](http://www.newtonfund.ac.uk)) and follow via Twitter: @NewtonFund.

# Acknowledgement

This work was supported by a Researcher Links grant, 2019-RLWK11-10693, under the UK-Brazil partnership. The grant is funded by the UK Department for Business, Energy and Industrial Strategy and delivered by the British Council. For further information, please visit [www.newtonfund.ac.uk](http://www.newtonfund.ac.uk).

# Contact us

Dr Eric Cheung p.cheung@mmu.ac.uk; Ulysses Sengupta u.sengupta@mmu.ac.uk; Dr Deljana Iossifova deljana.iossifova@manchester.ac.uk for UK participants.

Prof Norma Valencio norma.valencio@ufscar.br; Juliano Gonçalves juliano@ufscar.br; Erica Pugliesi epugliesi@ufscar.br for Brazil participants.

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Workshop Application Form

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| **1. Applicant** |
| Name and title |  |
| Gender (for statistical purposes only. This will notaffect choice of participants) |  |
| Home address |  |
| Position |  |
| Institution |  |
| Unit within institution (campus/centre/institute/ school/department or equivalent) |  |
| Institution address |  |
| Email |  |
| Phone number |  |
| Brief CV (academic career, publications, markers of esteem, and any other relevant informationplease include Doctoral thesis defence date: dd/mm/yyyy and thesis titleno more than ½ page of A4) |  |
| Link to CV (optional) |  |
| ORCID ID (optional) |  |

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| **I declare that I have obtained the title of Doctor no more than 10 years before the start of the workshop** |
| Yes |  | No |  |

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| 2. Abstract - Please give a summary of your area of research  |
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| **3. Please describe your motivation for attending the workshop and how the workshop matches your professional development needs** |
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| 4. Please describe the expected impact of your participation on your personal and professional development, including your ability to work internationally |
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| 5. Please indicate how you will disseminate the outcomes of the workshops and the new knowledge/skills you have acquired |
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| **6. Workshops will take place in English as standard. Please indicate your ability to communicate with other researchers, public presentations and writing of joint scientific work in English.** |
| Native speaker |  | Good |  |
| Excellent |  | Need support |  |

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| 7. Please indicate if you are interested in joint publication towards a special issue in relevant journals? |
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| 8. Please use this space to give any additional information that you feel is relevant for the application. |
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|  **I provide consent for the data provided in this form to be used for the selection process** |
| Yes |  | No |  |

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| (for Brazil applicants) **I declare that I am affiliated to a Higher Education or Research Institution (University, Institute, Centre or equivalent) in the state of São Paulo** |
| Yes |  | No |  |
| Title of current research project |  |
| Abstract of research project  |  |
| Main knowledge area of this research (Brazilian Ministry of Science and Technology list): |  |
| Subareas of knowledge (Brazilian Ministry of Science and Technology list) |  |
| Keywords |  |
| Additional supporting documents  | Letter from the post-doc supervisor or the immediate head of the ECR agreeing with the participation of the candidate |