

THESIS COMPETITION ON RE-IMAGINING URBAN RIVERS, SEASON 3

**A competition for the students of Bachelor's and Master's degree programs
for their academic thesis/research projects**

OBJECTIVE OF THE COMPETITION?

The purpose of this sponsored thesis competition is to invite students to take up their academic thesis projects on the theme of the competition described in the next section.

The competition aspires to provide students with an opportunity to design blue sky and innovative solutions for re-imagining the outlook and management of rivers that flow through Indian cities.

The competition is organized by the National Mission for Clean Ganga (NMCG) and the National Institute for Urban Affairs (NIUA).

THEMES OF THE COMPETITION?

The competition has six themes:



Reducing River Pollution

Pollution is perhaps the greatest challenge for urban rivers today. This is in the form of untreated domestic and industrial wastewater; pesticides from agricultural runoff; solid waste; oil spills; and accidental dumping of hazardous material; among others. In many cities, rivers become the ultimate recipients of the pollution, even though it may be generated elsewhere. Therefore, controlling river pollution is the primary thrust area for any long-term rejuvenation strategy of a river.

For this theme, students will identify a polluted stretch of the river (or drain) in any of the Indian city and design an innovative solution to address the problem.

Examples of possible projects include (but are not limited to) state-of-the-art technologies for pollution control; leveraging on nature-based solutions; adopting advanced engineering avenues; developing innovative regulatory frameworks; designing unique planning approaches; among others.

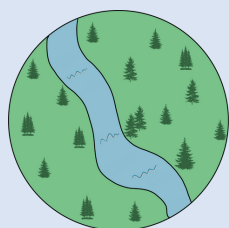


Rejuvenating Water Bodies

Water bodies and wetlands are intrinsically linked to rivers. Well-maintained water bodies are an excellent avenue for groundwater recharge, which can complement the water supply in a city and reduce the stress on the river. Likewise, most wetlands act as a natural buffer to protect the river from pollution. However, in most cities water bodies and wetlands are in a sorry state. The first step to reversing this trend is to create value for these features because we usually care for what we value.

For this theme, students will select an actual water body/wetland in any of the Indian city for the project, and demonstrate how its value can be enhanced to make it more attractive for the city's residents. This could be recreational value, social value, aesthetic value, and others, or a combination of all. The student has all the flexibility to imagine.

Examples of possible projects include (but are not limited to) reviving a water body using nature-based solutions; developing a water body as a recreational avenue for residents; rejuvenating a water body to serve as a groundwater recharge zone; developing a constructed wetland; and creating artificial water bodies; among others.



Creating a Vibrant River Zone

River Zone is an area immediately adjacent to the river. Ideally, the width of the river zone should coincide with the extent of the floodplain in the city. However, in many cities, the river zone width is dictated by existing development in the floodplain and can vary from 100 m to 1 km. Creating vibrant river zones serve as an effective avenue to reconnect the city with the river while enhancing the recreational quotient of the river.

For this theme, students will select a particular stretch of the river zone in any of the Indian city and design it to make it more vibrant and appealing. It is crucial that design elements are environmentally friendly and do not disturb the riverine ecology.

Examples of possible projects include (but are not limited to) biodiversity parks; ecofriendly ghats; herbal gardens; nature trails; amphitheater; or a mixture of different elements; among others.



Generating River Related Economy

Rivers have a tremendous economic value through the ecosystem services it provides and the livelihoods it can support. Already cities across the globe have boosted their economies through river-centric activities. Rivers can help cities progress up the economic ladder, which every city aspires. Needless to say, the scale and extent of such actions must account for the river's carrying capacity.

For this theme, students will plan and design a river-friendly intervention to augment the river-related economy in any of the Indian city. The scale and scope of the project can be decided based on the context of the selected city.

Examples of possible projects include (but are not limited to) developing river markets; river cruises; water sports; floating restaurants; promenades; recreational plazas; boating clubs; and cultural theme parks; among others.



Engaging Citizens in River Management Activities

Engaging citizens in river management activities is essential to make a shift from 'citizens as spectators' to 'citizens as actors'. This also sends out the message that river management cannot be the government's mandate alone. Residents will need to step in and share the onus of responsibility. Most progressive societies have some or the other form of this governance model. In the long run, it will help create a transformation in the mindset of people towards the ecological assets of the city.

For this theme, students will design a model/strategy for engaging citizens for a specific river management activity. The engagement can be a one-time effort, periodic, or continuous.

Examples of possible projects include (but are not limited to) developing a model/strategy for engaging communities for river clean-up drives; monitoring river water quality; larger sensitization on river-related issues; and action research for river challenges; among others.



Managing Riverine Biodiversity

The complexity and severity of biodiversity challenges have grown exponentially over time, far beyond human vision. Although the rivers were redesigned with the best of intentions, the consequences of the changes resulted in the loss of biodiversity, river bio-corridors, and inherent traits.

For this theme, students will design a model/strategy for managing riverine biodiversity. The engagement can be a one-time effort, periodic, or continuous.

Examples of potential initiatives include (but are not limited to) developing a model/strategy for biodiversity mapping, monitoring protection, and including communities in the process, among others.

WHO CAN PARTICIPATE?

There are two categories of eligible participants for the competition.

Category 1: Students enrolled in a full-time, non-sponsored Bachelor's programme of any discipline in any of the University/School/Institution across the globe.

Category 2: Students enrolled in a full-time, non-sponsored Master's programme of any discipline in any of the University/School/Institution across the globe.

Following are the eligibility criteria applicable to both categories of participants.

- (i) Students are undertaking or will undertake a mandatory thesis/research project as part of their academic curriculum.
- (ii) The mandatory thesis/research project is at least a semester-long (4-6 months) overlapping between January and June.
- (iii) The topic of the thesis/research project fits one or more themes of the competition

HOW MANY ENTRIES WILL BE SELECTED?

Up to 10 entries from each category (i.e., Bachelor's and Master's students) will be selected.

WHAT ARE THE REWARDS?

- All selected students will receive a scholarship of **INR 50,000 each** to undertake the activities associated with the thesis/research project.
- All selected students will receive a **special Certificate of Meritorious Achievement** issued by NMCG and NIUA, subject to successful completion and submission of the thesis/research project.
- All selected students will be invited to **participate in a three-five days workshop cum site visit**, (or online, if the Covid-19 threat persists) before during their thesis. During the workshop cum site visit, they will have an opportunity to interact with several experts in the domain to help them fine-tune their proposals.
- All selected students will be invited to Delhi for the final presentation that a panel of eminent jury members will evaluate. The **top three projects (in each category), as assessed by the jury panel, will be recognized and awarded.**
- All selected students will have an opportunity to **publish their work in a special issue publication of a reputed journal.**
- NIUA and NMCG will facilitate the development of projects that have a high potential for implementation.

HOW IS THE COMPETITION ORGANISED?

Launch of Season 3 of the competition

29 July 2022

STAGE 1: Submission of project ideas

Deadline 17 October 2022

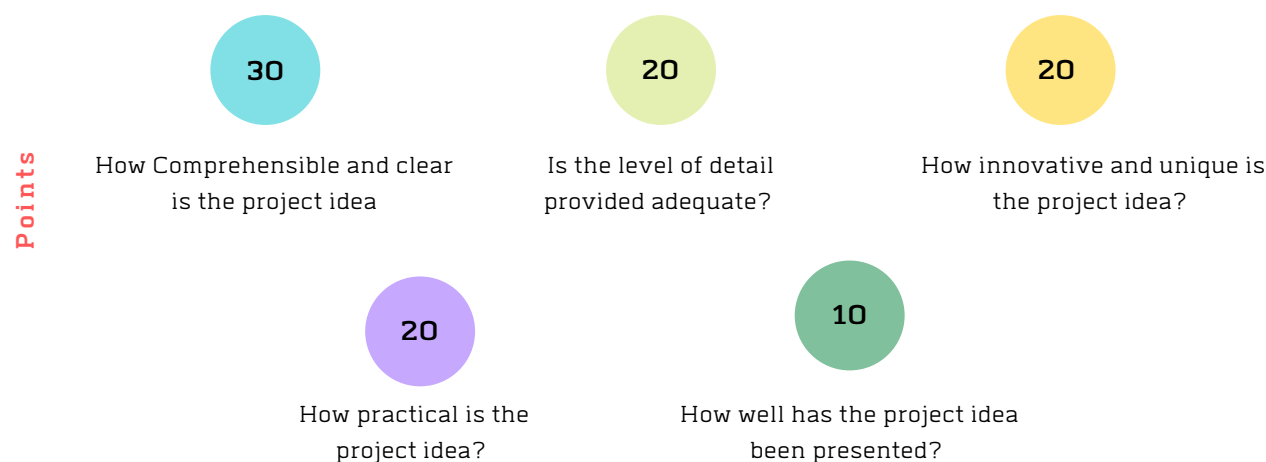
Students will develop a conceptual idea for the thesis/project under any of the five themes—Reducing River pollution, Rejuvenating water bodies, Creating a vibrant river zone, Generating a river-related economy, and Engaging citizens in river management activities. Students are expected to develop their ideas in close consultation with their supervisors. Students must use the template provided on the NIUA website to submit their entries of project ideas. Any entries that do not follow the template will, unfortunately, have to be rejected.



STAGE 2: Evaluation of the project ideas

17 October 2022–26 October 2022

A panel will evaluate the project ideas received based on the following criteria and scores.



Based on the panel's recommendations, up to 10 entries from each of the categories 1 & 2, i.e., Bachelors and Masters students, will be selected. Additional entries may be chosen if they are found to be exceptionally innovative.

STAGE 3: Announcement of selected project ideas

27 October 2022

All participants will be apprised about the outcomes of their entries. Additionally, the selected project ideas will also be displayed on the NIUA and NMCG websites. Official communication will be made to the selected students.

STAGE 4: Workshop cum site visit with the selected students

25 -26 November 2022

The selected students will be required to attend a 3-5-day workshop cum site visit in Delhi (if found feasible and safe) or online. The purpose of this workshop cum site visit will be to help students (a) further fine-tune their project ideas; (b) discuss data requirements for the thesis; (c) familiarize themselves with the urban river management planning framework developed by NIUA and NMCG; (d) have interaction with urban river management practitioners and experts. NIUA will cover the costs of participation of the students.

STAGE 5: Thesis/Project undertaking period

December 2022–June 2023

Students will undertake the project at their institutes with visits to the study area as per their schedules. An online meeting of each student and their supervisor with NIUA and NMCG representatives will be organized once in every two months to discuss the progress and address any challenge that may have arisen.

Note: Students will take the final examinations/jury of the Schools/Institutes as per their official schedules.

STAGE 6: Final presentations for the competition

15 June 2023

All selected students will be invited to Delhi (if found feasible and safe) to make their final presentation to a panel. The top three presentations will be recognized and awarded. Certificates of merit will be issued to all participants. NMCG will also liaise with the Commissioners of the study area cities to arrange a meeting for the students to present their work, with a view for the work to be taken up for actual implementation.

Before the presentation, the students will be required to submit the project report in a format that will be shared later.

HOW TO SUBMIT AN ENTRY?

- Interested students must use the template on the NIUA, NMCG website to make their submission of project ideas.
- No late entries shall be entertained.
- **All entries, as per the given format, should be sent by email to urvers@niua.org in PDF format with the subject "Entry for thesis competition Season 3".**

SOME ADDITIONAL INFORMATION

- **The research scholarship for the students will be given to their respective institutes.** It is the responsibility of the institute to further allocate the funding to the students.
- It is the responsibility of the student to discuss their project idea with the assigned supervisor. Additionally, the students need to submit an affirmation from any Authorised Representative of their Institution/School/University in the submission template (Part 2).
- Due to the large volume of applications envisaged, it will not be possible to provide individual feedback on entries received.
- The competition organizers may circulate further details from time to time during this entire period of engagement.
- All the relevant details can also be accessed at www.niua.org, www.nmcg.in

DO YOU HAVE A QUERY?

Please feel free to get in touch with our team members.

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