















Liveable Leh: Call for Ideas

Mitigating Climate Change through cutting-edge ideas/innovations to make Leh town, a resilient and liveable high-altitude Himalayan town

About LEDEG

The Ladakh Ecological Development and Environmental Group (LEDeG) is an environmental NGO based in Leh. In 1986, it received the Right Livelihood Award "for preserving the traditional culture and values of Ladakh against the onslaught of tourism and development." Established independently in 1983, its goal is to promote ecological and sustainable development of Ladakh, focusing mainly on the promotion of renewable energy, particularly solar energy. The organization pays particular attention to environmental, economic and cultural issues affecting disadvantaged communities in Ladakh.



About Ethos

Ethos was founded in 2002 by Architect Gita Balakrishnan to build awareness of our built environment. A need was felt to bridge the gap between students undergoing education in colleges and the outside professional world; a need to provide more opportunities to budding professionals and to create a platform, a network of young designers and civil engineers who will be decision-makers in the years to come. In August 2018, we launched ACEDGE- an online learning platform to aid outside-classroom learning and complement college EDucation for learners in the fields of Architecture, Construction, Engineering and Design. ACEDGE complements college education as well as facilitates mid-career learning. Through all our activities- design and knowledge-based competitions (IDEACE), online learning platform (ACEDGE), a job placement portal (PLACEDIN), and a foundation to support the cause of the fraternity (ARCHAUSE) our intent is also to bridge the gap between the industry, the creative fraternity and the society. Ethos' flagship events - Archumen and Bending Moment are extremely popular as National Quizzes on Architecture and Civil Engineering respectively among the student fraternity. The main objective of Ethos is to be the wind beneath the wings of young minds that are to shape our environment in the years to come.

Background

Ladakh Ecological Development Group (LEDeG) under 'Liveable Leh', a project funded by the European Union and supported by BORDA (Bremen Overseas Research and Development Association) and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), is currently working towards achieving an inclusive, resilient and liveable Himalayan city. The main focus of the project is to mitigate Climate Change and also to achieve Sustainable Development Goals 6 (clean water and sanitation) and 11 (sustainable Development Goals 6 (clean water and sanitation) and 11 (sustainable Development Goals 6 (clean water and sanitation) and 11 (sustainable cities and communities).















This design competition *Liveable Leh*: *Call for Ideas*, aims to explore and develop cutting-edge innovations to fight climate change at high altitudes. Research has shown that high altitude areas are the earliest to be affected by climate change and therefore are a bellwether for changes that other regions may experience in the future. The best ideas will be awarded, published and disseminated to other similar regions which may find these solutions useful.

Ladakh: A Unique Place

The greater Himalayan region is the largest high altitude area on Earth and also the largest area covered by glaciers as well as by permafrost outside the polar regions. The water resources from this area replenish ten of the largest rivers in Asia, from which more than 1.3 billion people, inhabiting seven megacities make their livelihoods.

Set amidst this setting, Ladakh is a rustic, heavenly and beautiful travel destination. One of the most famous cold deserts of the world, it is a major tourist hub. However, extreme weather conditions with an extended winter season, geographical remoteness and a critical scarcity of natural sources of energy renders life strenuous in the region. Limited infrastructural development, rapid urbanisation and traffic congestion have been adding to the woes in its recent history.

LEDeG works with the residents of Ladakh to improve their livelihood and quality of life. Their projects encourage utilisation of sustainable energy, watershed development programmes, hydroelectric power, groundwater management and hydraulic ram pump. They have also led the Flood Relief Rehabilitation program in Leh.

Their latest project **Liveable Leh** is an initiative to strengthen and make Leh an environment-friendly, sustainable and resilient urban development. Under the Liveable Leh project, the Ladakh Autonomous Hill Development Council (LAHDC) will train its officials and institutions, improve public services (sewage treatment, waste management) and educate residents and tourists alike.

Focus Areas

Climate Change in High-Altitude Areas

The Himalayan region is home to the largest population that has been affected by the climate change. Over the past two decades, temperatures at altitudes above 4,000 meters have warmed up 75% faster than at altitudes below 2,000 meters. If global temperatures rise by 2°C, then half the glaciers would be gone by 2100. Even if the world takes considerable action and limits the rise to 1.5°C, 36% of the glaciers will have disappeared. Shortening of the snow season and decreasing annual rainfall are some of the common obstacles faced by the high altitude regions due to these climatic changes. This in turn increases the possibility of landslides, floods and snow avalanches.

















Higher temperatures also favour the growth of mosquitoes and other insects thereby increasing the possibility of spread of diseases. A major concern in high-altitude regions such as Ladakh is the consequent water shortage they face. Over the decades the weakened monsoon has deprived farmers of the much needed water for their crops. The farmers have had to chase higher slopes and cooler nights in hopes that their apples and grains will grow.

Call for Ideas

With the above background, LEDeG in association with Ethos announces an open call for students and young professionals in the field of Architecture, Planning and Design to come together and find innovative solutions to mitigate climate change, as well as adapt to it. The participant(s) may offer solutions related but not restricted to the designing of built forms, public spaces, products, technology, applications or any other relevant solution areas that addresses problems faced by the region.

Solution Areas:

We seek proposals that are innovative, sustainable and address Climate Change in high altitude regions. Participants may choose to submit solutions at Macro or Micro level

1. MACRO LEVEL

Solutions should embody innovation and technological advancement elaborating on the issues at City and Regional Level. Application of sustainable techniques for construction, reusing building materials, reducing the carbon footprint like energy generation, waste management, transportation planning, urban design, water supply, livelihood generation etc. are some key areas you may address.

2. MICRO LEVEL

Solutions should exemplify innovation in passive and active design through products, details and household level interventions that can be implemented at smaller scales.

Eligibility

- Open to all undergraduate and postgraduate students of Architecture and Design across the world
- Those under 30 years of age are also eligible to participate

Team Composition

Maximum of **two** members per team.















Awards

First Prize: INR 50,000Second Prize: INR 30,000Third Prize: INR 10,000

2 Jury Commendations: INR 5,000 each

 The innovation/idea would be shared with LAHDC Leh, which is the local government, for adoption if found practical.

 The best ideas will be awarded, published and disseminated to other similar regions which may find these solutions useful.

Important Dates

Registrations open: 28th October 2020
Registrations Deadline: 10th December 2020

Submissions: 10th November to 15th December 2020

Results: 7th January 2021

Submission Requirement

Entries should identify specific problem areas within the theme of addressing climate change related concerns for high-altitude regions and suggest innovative ideas, solutions and strategies; capture the same in maximum of 5 graphical slide frames along with an additional single page A4 word doc describing the solution.

Registration and submissions on: www.ethosempowers.com/#/ideace/events/LEDEG

Evaluation Criteria

- Identification of a problem or key issue.
- Clarity of the expression of the idea addressing a system-level problem and its solution
- Solution reflects the needs and matches the resources of Ladakh
- Focus and depth in the idea and solution rather than a range of issues.
- Innovation and Practical feasibility

















References:

- https://www.preventionweb.net/files/11621 icimodthechanginghimalayas1.pdf
- http://www.ledeg.org/category/liveable-leh/
- https://www.theguardian.com/environment/2015/feb/24/artificial-glacier-could-help-ladakh-villagers-adapt-t o-climate-change
- https://www.rutgers.edu/news/climate-change-affecting-high-altitude-regions-faster-rate-rutgers-study-finds #:~:text=Globally%2C%20the%20team%20of%20researchers,2%2C000%20meters%20(6%2C560%20feet)











