British Council Proposal on Climate Skills by University of Mumbai

1. **Name of the University or Institution:**

   Response: University of Mumbai

2. **Address of the University or Institution.**

   Response: University of Mumbai, Vidya Nagari, Kalina, Santacruz East, Mumbai, Maharashtra 400098. · 022 26543000 / 022 22708700.

3. **Name of University or Institution representative / Contact Person.**

   Response: Dr. Aparna Phadke, Department of Geography

   Prof. Indu George, Department of Life Sciences

   Dr. Suhas Jejurikar, National Centre for Nanoscience and Nanotechnology

4. **Does your University or Institution have valid FCRA certification?**

   Response: No, it is exempted as per Govt of India Gazette Notification CG-DL-E-30012020-215802 dated JANUARY 30, 2020

5. **If you have answered yes for the above question, please provide below the University or Institution's valid FCRA registration number.**

   Response: Not applicable

6. **Email ID of University or Institution representative / Contact Person.**

   Response:

   aparna.phadke@geography.mu.ac.in

   indu.george@lifesciences.mu.ac.in

   suhas.j@ncnn.mu.ac.in

7. **Contact number of University or Institution representative / Contact Person.**

Response: Aparna Phadke 9850140172, Indu George 9821477971, Suhas Jejurikar 9930386304

8. **Alternate Email ID of University or Institution representative / Contact Person.**

   Response: aparna.phadke@geography.mu.ac.in

   indu.george@lifesciences.mu.ac.in

   suhas.j@ncnn.mu.ac.in

9. **Do you have the required approvals and permission from the Institution's management/leadership to respond to this Expression of Interest call?**

   Response: Yes

10. **If your response to the above is 'Yes', please provide the name, designation and details of the approving authority.**

    Response: Dr. Ravindra Kulkarni, Vice Chancellor University of Mumbai

    Contact details: vice-chancellor@mu.ac.in Phone: 22656789, 22650403

11. **Please describe a local climate-related research problem that your institution would focus on as part of this project. Include details on how the problem was identified, its relevance to your region, the process used for identification.**

    Provide a track record of last three years of work on climate-related issues, including any relevant climate-focused courses offered at the institution.

    Examples of policy influencing in area of climate either at state or national level, translational activity of research finding will be weighted highly.

The University of Mumbai is one of the oldest and premier institutions in the state of Maharashtra and India. Though the headquarters are geographically located in Mumbai City and Suburb district, its sub campuses and affiliated institutions are spread across five districts of Kokan Region - Raigad, Sindhudurg, Ratnagiri, Thane and Palghar. The Kokan Region including Mumbai falls under the hot and humid climate. The entire zone receives heavy rainfall (above 3500 mm) during Monsoon. The tropical climate has allowed evolution and growth of unique ecosystems across the region. The area also falls under one of the world's biodiversity hotspots i.e. Western Ghats. There are some of the unique life forms and ecosystems like Myristica Swamps, mangroves, wetlands and evergreen forests.

The region experiences rapid population growth and haphazard urbanisation leading to uncontrolled destruction of the natural environment. Due to anthropogenic interventions, there has been a rapid deterioration of these ecosystems leading to destruction of biodiversity and wetlands specifically owing to various kinds of infrastructural and developmental projects at a bigger scale and individualised, and community induced destructions at smaller scale. The patterns, processes, and landscapes of urban growth, development and destruction 'experimented' get replicated in the rest of the metropolitan region and distant peripherals. The region lies between the Western Ghats biome and Arabian Sea making itself further vulnerable to climate change because of its geographic location and vicinity to the Arabian Sea. The ocean and terrestrial temperature change has been altered due to climate change so the land-ocean interaction in terms of heat transfer. The Mumbai and Konkan area is vulnerable to climate change induced hazards including sea level rise, heavy rainfall, storm surge and tropical cyclones. It is also susceptible to landslides as a result of heavy rain that causes many

fatalities and physical damage every monsoon. Increased incidences and frequency of cyclonic activities, torrential rains, heat island process, flooding, etc along with severe air pollution have been witnessed in recent years by not only Greater Mumbai but also several coastal towns like Devgad, Malvan, Shrivardhan, Alibaug, Murud-Janjira in the Kokan Region. The Konkan districts experience high levels of humidity and resulting humid heat. Coastal risks due to storm surge, coastal inundation, and sea intrusion are also exacerbated during the monsoon months. Demographic diversity impacts sensitivity to climate risks, adding a layer of complexity to

understanding differential vulnerabilities and resilience capacities. Another major risk is urban heat. The Konkan area experiences high temperatures not only during summer but also in the post-monsoon months when humidity levels increase heat stress. Low-income households and informal settlements are at a higher risk (Mehrotra, Bardhan, & Ramamritham, 2018) given the limited access to water and sanitation services and the nature of their living environment (metal roofs and tarpaulin roofs exacerbate heat risks). Heat stress also impacts productivity and thereby livelihoods and the economy.

The climate change driven by global climatic changes, regional and local climate phenomena and anthropogenic changes are found to have a synergic impact in intensifying the consequences to different natural and human ecosystems.

The Vidyanagari campus of University of Mumbai is located in one of the highly urbanised areas witnessing probably the highest air pollution i.e. AQI above 300. The presence of Bandra-Kurla Complex, international and domestic airports, etc. make the entire Kalina area very busy with commuters as well as other passenger traffic leading to traffic jams and congestion and highly polluted air. There has been continuous deterioration of the air quality. The presence of new architectural engineering in the form of steel and glass adds to heat influxes substantially. These buildings have mandatory air conditioning which also leads to carbon and heat emissions. The entire landscape is highly carbon positive.

Urban heat stress, air pollution, water logging and flash floods are the major issues identified. We aim to address these issues through two themes i.e. biodiversity conservation-carbon neutral campus, and wetland conservation.

A. Biodiversity conservation-carbon neutral campus

While addressing the issues, a SWOT analysis was done to understand what we as an educational institution can do at our own levels. One of the major strengths identified was the presence of a good density of vegetation. Just like other academic institutional complexes in India, Vidyanagari campus also has a good amount of vegetation. Though the vegetation is more or less planted and landscaped, some patches are untamed. While addressing the issues of climate change, the idea of a Green Campus (renamed as Carbon Neutral Campus) prompted us to focus on vegetation leading then to a comprehensive concept of biodiversity. It could be realised

that the best natural solution that can be implemented at the individual and community-level to deal with the problems and to have a local microclimate impact, the best practice would be preservation of biodiversity. Trees are the natural solutions for reducing carbon footprints, heat stress, energy requirements and holding the groundwater. A Biodiversity Audit was planned in 2021 with the following objectives:

1. Identification and documentation of the flora mainly trees with the help of Dr. Rajdeo Singh who is a well-known taxonomist
2. Geotagging the flora using Open Data Kit (Geospatial technology)
3. Mapping of the flora with the help of open-source software QGIS (GIS technology)
4. Preparation of QR codes for each plant species.
5. Species-based distribution of plants and number of plants per species has been calculated
6. Suggestions and Solutions for Ecological restoration and management.
7. Planning and promoting conservation practices by involving the nonteaching, teaching and student community.

A detailed outline of the Methodology:

1. Identification of flora and fauna has been done with the help of taxonomist, Dr, Rajdeo Singh by conducting field surveys mainly for identification of trees. The height and trunk size of each tree was recorded.
2. Preparation of the IUCN list using the data published by Forest Research Institute, Dehradun
3. Collection of information about the plants – Common name, Botanical Name, Local Name, IUCN status, medicinal use, commercial use, traditional use and other important information
4. Geotagging the flora and fauna using handheld GPS, mobile GPS tracker and ODK collect through primary survey
5. Preparation of various maps representing spatial distribution of trees by using the GIS software like QGIS
6. Calculation of Carbon sequestration and carbon sink

B. Protection of Wetland

Under the initiative of the Carbon Neutral Campus Committee, the second initiative has been the protection of a water body (wetland) situated in Vidyanagari Campus. Wetlands are one of the most vital carbon sinks. Vidyanagari Campus of the University of Mumbai has a waterbody spread across almost 35 acres. The waterbody has been slowly getting consumed from all sides with the construction of flyovers, metro, illegal dumping, etc. As it is not yet registered as a wetland, the University has decided to register it as a wetland and protect it. Conservation is necessary to arrest flood water, carbon sequestration and wetland-related biodiversity. The waterbody attracts as many as 64 species of birds, half of them being migratory birds.

The preservation of the wetland has been undertaken with the completion of the following steps so far

1. GPS survey and mapping of the wetland,
2. Mapping of the HFL (High Flood Line) and 75 meters of no development zone.
3. Biodiversity mapping in the 75 meters of no development zone
4. Water sample testing to understand the various qualitative aspects of wetland water

Observations:

1. Bird nestings are observed
2. Presence of aquatic fauna like catfish
3. Presence of Associate Mangroves

The University of Mumbai would like to choose Biodiversity conservation and wetland conservation as the key areas for the climate skill program. The university would also like to extend to energy audits and rainwater harvesting practices to be harnessed as skills.

For MA research dissertation the students are encouraged to engage with research topics that are related to climate change-related research. Along with the thesis/academic knowledge enhancements, the university aims to build skills and capacities of youth in activities like creating and maintaining the Sacred groves, circular economy, terrace gardens as building microclimate modifiers. There are government and public initiatives around these topics which eventually help youth to engage in ground actions. Students from mass media and communication have been encouraged to select topics like sustainability in their assignments.

Under the revised curriculum under NEP, the Department of Geography, Department of Life Sciences, Mumbai School of Economics have introduced the elements of Climate change and sustainability studies. In the curricula for Masters in Geography, Climate Change and Sustainability Studies has been offered as one of the specializations. The University Department of Life Sciences offers an entire course in Environmental Biotechnology; environmental sustainability and green methods, ecosystems, biodiversity, and Environmental Impact Assessment with case studies as a part of other courses and also has elective courses on remote sensing, Natural and managed ecosystems.

12. Please describe the potential mitigation or adaptation initiatives you have identified in response to the climate-related research problem. Explain why you believe these initiatives will be effective, how they were identified, etc.

Showcase a minimum of three years of community outreach initiatives related to climate mitigation or adaptation efforts.

Future plans for the community outreach, translational activity and climate related research for which funding has been secured will also be considered.

1. Air pollution,
2. heat stress,
3. flooding and
4. flash flooding

Above four are the major issues identified in the area where Vidyanagari campus is located. There has been a reciprocal relationship between the micro and macro climate change and urban stressors. The mitigation and adaptation measures could be undertaken at various scales, i.e. from local to global. What is within our reach is the local community level adaptation and mitigation efforts. The two listed below are the broad initiatives we have already undertaken. We would like to extend these for the climate skill program as we have already developed a methodology, and connections with the experts and various governmental and nongovernmental organisations working at local and regional level. To name a few, Paryavaran Dakshata Manch (wetland conservation), World Resource

Institute (Sewage Treatment Plant - Pilot project as a part of Mumbai Action Plan), Resource and Support Centre for Development, Project Mumbai (street mapping), MCGM and MMRDA.

1. Biodiversity preservation
2. Wetland protection and conservation
3. Energy audit
4. Rainwater harvesting techniques

There are already various research groups, independent researchers, academicians, NGOs and governmental organisations working in the field of biodiversity conservation. The University of Mumbai is connected with such stakeholders in climate change action and biodiversity conservation.
One of the most important supporting elements is the village level biodiversity register. The Government of Maharashtra offers a separate fund for maintaining a biodiversity register for each Gram Panchayat (Gram Panchayat is a local governing body in India that governs a village or group of villages). It is observed that such practice of biodiversity register is evident only with those Gram Panchayats that participate in Mazi Vasundhara (My Earth competition worth INR 315 crore). The trained youths can be linked with NGOs like RSCD who have already taken initiatives on climate change and with Gram Panchayat to initiate the process of biodiversity audit by including the communities using the training received by us.
Secondly, in the five districts of Kokan, the formation of a wetland brief documentation committee was facilitated by including local experts, local NGOs, academicians and researchers to conduct detailed documentation on the aspects of biodiversity, cultural and heritage, soil and water analysis, archeological significance and community connect, ecological of the selected wetlands. The brief documentation has been completed. This initiative can be reinstated where the communities can be reconnected with the wetlands through climate skill programs and trained youths.

Both initiatives already are institutionalised and have baseline structures. It will be an action project and real time skilling for the youths and will result in impactful actions/results in select spaces. As we are targeting to have students for climate skill programs from affiliated colleges and institutions, the program could bring in more geographical spaces in action.

1. The University of Mumbai is already engaged in climate change adaptation and mitigation practices as already mentioned in response to the question no 11 above
2. The university has also conducted energy audit to emerge with energy efficient building infrastructure.
3. Additionally, Rotary club has partnered with the University to fund the development of butterfly garden, biodiversity park and Miyawaki garden.

4. As a part of the Mumbai Climate Action Plan, the World Resource Institute selected the University of Mumbai Vidyanagari campus as its pilot site. A nature-based solution in the form of a wormi filter has been installed to treat sewage water. The capacity is 6000 liters per day.

5. Rainwater harvesting tanks have been installed in the newly constructed buildings and there have been efforts to emerge with efficient rainwater management.
6. A composting plant has been installed by MCGM to convert the organic matter into manure.

7. Recently, 500 plant saplings have been planted in the campus. The varieties are native.
8. Various departments like Geography, Life Sciences, Nanotechnology and Nanoscience have included these green efforts as part of their curricula and co-curricular activities. Since the year 2020, various climate actions have been initiated by the university.
9. We are involving all the stakeholders in these initiatives including students, faculties, non-teaching staff members and also senate members.

The University plans to expand these initiatives to other sub-campuses and affiliated colleges and institutions. Bombay College of Pharmacy has also undertaken a biodiversity audit with the help of the University of Mumbai team. With NGOs like RSCD, the Department of Geography is planning to reach out to the communities for training them in biodiversity conservation through audit exercises.

A mobile-based application has also been developed for common users to record the biodiversity in their areas. The app also returns sequestration. The name of the app is ‘Live Green’.
Connecting all the stakeholders, the university can peach in at least 40 to 50 select spaces for biodiversity audit and wetland conservation practices.

13. **How do you envision linking the identified climate-related initiatives with the skilling of youth in your institution? Please describe your strategy for integrating these initiatives into a skill development programme. Additionally, provide an estimate of the number of eligible youth at your institution who could participate in this programme.**

The Mumbai University runs national and international repute capacity-building programs and interventions throughout the academic years and post-education networking. This program will be implemented in parallel to similar initiatives where the campuses and logistical arrangements are in place.

Mumbai University has tied up with the RSCD which has already started the initiative of ‘Paryavaran Sakhi’ (Friend of Nature) where rural women have been involved in the discourse of identification of local issues connected with climate change and offer engagements in terms of mitigation and adaptation. Our students have worked with them for their mandatory internship in semester II in post-graduate studies. The work region for RSCD is Kokan Region which is similar to the jurisdiction of University of Mumbai. For biodiversity conservation RSCD could be ideal to collaborate with for adopting the 'Paryavaran Sakhi’ model for the female students of the university under the British Council and University of Mumbai Climate Skill Program. Similarly, the skilling program can also be extended to the RSCD identified youth who can also get skilled, and become the local champion of biodiversity conservation and registrations through the Majhi Vasundhara Abhiyan.
Paryavaran Dakshata Manch is another NGO that is actively involved in wetland research and conservation. University of Mumbai in collaboration with Paryavaran Dakshata Manch has initiated wetland documentation and preservation of the waterbody present in the Vidyanagari campus. The trained students can also work with them and initiate wetland preservation-related activities. The World Resource Institute would also be roped in to get the expertise and training for the decided

exercises. They have already agreed to give practical training to our Master's students on the making of a climate action plan. NEERI could also be engaged as one of the partner organisations specifically in terms of energy efficiency and rainwater harvesting.

The Processes / activities that are expected to be

1. Selection of the departments and affiliated institutions that would participate in the Climate Skill Program
2. Procedure for selecting the teaching faculty members, non-teaching staff members, research scholars as core trainers and facilitators
3. A due selection procedure would be designed to select at least 400 student participants from University Departments, affiliated colleges and institutions ideally from those institutions from where even the trainers and facilitators are interested in receiving such a kind of training.
4. A networking exercise to identify the local NGOs, civil groups, individual researchers, and community members who can join the design, planning and implementation team.
5. Networking with the governmental bodies that would facilitate the execution of planned climate action in select spaces.
6. Capacity building and strengthening workshops for cascade training for identified participants, representatives of the NGOs, governmental bodies and civil groups. All the stakeholders apart from educational institutions will also be involved right from the first stage of training to develop a comprehensive support system for the youths to have impactful climate action in selected geographic spaces falling within the jurisdiction of University of Mumbai.
7. The locations for cascade trainings would be more than one as the geographical extent of Kokan Region is vast and we, as University, would like to reach out to all possible corners of the region through networking with the above said stakeholders.
8. The training is expected to revolve around the issues identified and the pragmatic actions that are possible to be taken at individual and collective scales. Air pollution, heat stress, water logging, flooding and flash floods are the issues identified. Natural solutions come in the form of biodiversity

and wetland preservation as both reduce the carbon footprints and offer economic and ecological services.

9. The various sets of planned activities for training could be but not restricted to
    a. Air quality monitoring and measurements (Department of Geography)
    b. Temperature monitoring and measurements (Department of Geography)
    c. Water sample collection and testing (Department of Life Sciences and Department of Biotechnology)
    d. Sediment collection and testing (Department of Geography)
    e. Identification of flora and fauna (Dr. Umesh Mundley and Dr. Anil Avhad)
    f. Short courses on floral taxonomy (Dr. Umesh Mundley and Dr. Anil Avhad)
    g. Biodiversity mapping (Department of Geography)
    h. Wetland monitoring, mapping (Department of Geography, Paryavaran Dakhata Manch)
    i. Ecological and economic services of the wetlands (with Syamantak)
    j. Calculation of carbon sequestration (with Paryavaran Dakhata Manch)
    k. Making of climate action plan (with World Resource Institute)
    l. Climate Literacy and policy advocacy (With RSCD)
    m. Geospatial Technologies (Department of Geography)
    n. Training on energy audits (National Centre for Nanoscience and Nanotechnology)
    o. Training on rainwater harvesting techniques (National Centre for Nanoscience and Nanotechnology, Department of Geography, Department of Life Sciences)

Expected Output / Deliverables

1. 50 faculty members would be trained in the above-mentioned climate skills
2. The representatives of NGOs, community members would also receive training in above-mentioned skills and they would also be responsible for

updating the course content with appropriate variations to be implemented in their respective areas of work.

3. 400students will receive training mentioned above.
4. 300 students will have in-depth knowledge about geospatial mapping.
5. 300 students would receive training in climate policy advocacy.
6. 300 students would receive training for conducting energy audit.
7. 200 students would learn on rainwater harvesting practices
8. All the stakeholders would receive training and practical exposure to climate action plan preparation including technological and technical/soft skills like proposal writing, communication, negotiation, presentation and advocacy
9. At least in 50 geographic spaces, a biodiversity register would be prepared at the end of this project
10. At least 20 wetland documentation and community connect projects are expected to be accomplished.
11. 20 educational institutions would be targeted for the energy audit and rainwater harvesting practices

Evidence of the largest and most impactful training.

- Biodiversity audit has been one of the major experiments. A proper documentation of floral and faunal diversity with reference to terrestrial and wetland habitat was essential.
- As a part of National Science Day Celebrations, the Biodiversity Audit, University of Mumbai had been executed by the Department of Geography, Department of Life Sciences and NSS B 60 postgraduate unit as a joint venture in association with the Blatter Herbarium, St. Xavier's College, Fort, Mumbai.
- The audit included identification, geotagging of flora and QR coding of the trees.
- The survey was initiated on 31st January, 2021 and was concluded on 20th April where more than 5,500 trees have been identified, geotagged and QR coded.
- The identification of fauna was also done where 64 species of birds were registered. There was a team of more than 30 students, teachers and

experts. Over four months, the audit was completed and a report was compiled.

Also examples of the Monitoring and evaluation strategy for the training and the impact of training with evidence.

- A pre and post-training survey will be conducted of the participants as well as the communities in the project sites. The attitudinal changes, and impact assessment would be monitored.
- The site visits, communication with the community members, college administration to understand how training has been impactful in generating the awareness about climate change and its consequences and impactful actions would be assessed.

Examples of gender equity efforts, in training and outreach will be weigh positively.

- The biodiversity audit had in fact, more number of girl participants. The university assures proper gender representations at various programs.

The training safeguarding and mitigation of risks of plans for safeguarding plans and policy in management of training.

- We would be selecting more candidates for the training purpose as there is a possibility of some stakeholders dropping out in the longer run.
- The students and faculties would be incentivised by offering green credits and certificates.

14. How will your institution facilitate connections between the trained youth and relevant industries or sectors? Please outline your approach for securing apprenticeship, internship, or employment opportunities for participants. Additionally, provide details on any previous initiatives where your institution has successfully aligned students with relevant industry opportunities.

As already mentioned we have placed our students to various governmental, and nongovernmental organizations and industries for their mandatory internship. MCGM, MMRDA, Maharashtra Maritime Board, Department of Women and Child welfare, Indian Institute of Hydrology, Indian Institute of Technology, Bombay,

Indian Institute of Population non governmental organisations like PDM, WRI, RSCD and GIS and Geospatial industries like Universal Engine Private limited could be our partners in providing internships and employment opportunities. We are already in the process of formalising these connections through MoUs.

We have already placed our students with these organizations for internships (List enclosed).

Demonstrate a minimum three-year track record of successfully linking trained youth with relevant industries or sectors.
Career and future academic progression and both qualitative and quantitative evidence if any.
The University of Mumbai has instituted a Career Training and Placement Cell and internship cell. It is intended to facilitate the placements of students by meeting the needs of industries and skills of students. As the initiatives of introducing climate change-related skills in the curriculum are recent, we are in the process of emerging with MoUs with the industries and organisations that are working in the area of climate change.

15. Profile of the institution, its presence at a global forum on climate, digital presence, national and international conferences organised and attended will be considered.

The University of Mumbai (known earlier as the University of Bombay) is one of the oldest and premier Universities in India. It was established in 1857 consequent upon “Wood’s Education Dispatch”, and it is one amongst the first three Universities in India. As a sequel to the change in the name of the city from Bombay to Mumbai, the name of the University has been changed from “University of Bombay” to “University of Mumbai”, vide notification issued by the Government of Maharashtra and published in the Government Gazette dated 4th September, 1996.The University was accorded 5 star status in 2001 & ‘A++’ grade status in April 2017 by the National Assessment and Accreditation Council (NAAC). The

University of Mumbai is on 18th rank in NIRF ranking in the category of public state universities. At QS world ranking, the university has secured 711-720 position.

Various departments in the University have collaborations nationally and internationally. The university has signed MoUs with 8 foreign universities like Universite De Technologie De Troyes, France for educational and scientific cooperation and student exchange, the University of Illinois and St. Louis University, aiming to promote educational cooperation and exchange programs, University of Bolonga, etc. (https://www.hindustantimes.com/cities/mumbai-news/university-of-mumbai-signs-mous-with-2-us-universities-101690743612975.html); (https://www.mumbailive.com/en/education/mumbai-university-signs-educational-mous-with-36-renowned-institutions-across-india-and-abroad-81384). The University of Mumbai and the Maharashtra Pollution Control Board have an MoU that includes a dispute resolution process. The University of Mumbai has an MoU with Tianjin Normal University that includes collaboration in areas that are mutually beneficial. The MoU is valid for five years, and can be extended by five years unless one party terminates it at least six months before the expiry date. Mumbai Münster Institute of Advanced Studies (MMIAS) has collaborated with the University of Bayreuth, Germany, on migration and diaspora studies. The MMIAS has also considered joint research projects with Kachchh University on the maritime diaspora.
The details of MoUs can be found here.
https://mu.ac.in/iil https://mu.ac.in/iil#1707371356690-d8a26b6d-d931
Additionally, the faculties are also involved in various research projects sanctioned by DST, DST SERB, ICSSR, ICMR, etc.

Please give at least two names and profile of the faculty, research scholar or nominated university staff who will participate in contextualisation and delivery of the training. Their experience in high pedagogy nationally and internationally.

1. **Dr. Aparna Phadke, Department of Geography**
2. **Prof. Indu George, Department of Life Sciences**
3. **Dr. Suhas Jejurikar, National Centre for Nanoscience and Nanotechnology**

The detailed resumes are attached herewith the form.

16. Proposed cost of delivery of the programme with line-item break-up and descriptions.

Area 2:

Expenditure head 1: Capacity Strengthening through cascade trainings, workshops and field visits and surveys - INR 25,00,000

400 students will be selected for these activities. There will be 5 to 7 locations where the training activities will be conducted. The cost includes hospitality; accommodation (resource persons, students, trainers, etc.); Travel cost (regional, national and international (if any)), honorarium of the experts, etc.

Expenditure head 2: Development of the pedagogical materials, training kits, equipments for the survey, stationary, printing, etc -INR 10,00,000

Area 3:

Small grants - INR 15,00,000

- We are anticipating 70 initiatives (50 biodiversity registers and 20 wetland documentation and conservation initiatives).
- The initiatives that are leading to concrete climate action can be given small financial support of 20 to 50,000 depending on the nature of the work, which would be facilitated by the University of Mumbai. We can also raise a portion of these funds through CSR.

The total cost of the project is 50,00,000 INR.

Under UDRF, university departments can also think about offering a small fellowship for those who are interested in working in the field of climate action.

17. Any additional information that is relevant to this call (optional).

The university is in the process of initiating an energy audit, additional water treatment plant, and other such initiatives. University has also introduced UDRF - University Department Ranking Framework for overall healthy competition between the departments for better performance. Sustainability-related practices are one of the major areas where the departments would be analysed thus

encouraging the departments to adhere to sustainable practices to reduce the carbon footprints.