**NATIONAL SCIENCE FOUNDATION**

**International Collaborative Research Programme**

**NSF-NSFC Joint Call for Proposals 2024**

APPLICATION

**SECTION A**

|  |  |
| --- | --- |
| **1. Project Title**  *The title of the project should be brief, reflect concisely and accurately the proposed project and intelligible to a scientifically or technically literate reader. Applicants are advised to avoid titles which convey a distant or potential application of the proposed work, or a greater aspiration or goal than is to be expected from the proposed work.*  *.* | |
|  | |
| **2. Research Areas**  *Please select the most relevant* | |
| Water environment protection and water resources management  Green and low-carbon development and processing  ● Solid waste pollution prevention and comprehensive utilization | |
| **3. Project Period**  *Should not exceed three years* | |
|  | |
| **4. Total Budget**  *The maximum allocation for one grant from the Sri Lankan side would be USD 28,000. This allocation is expected to be met collectively by the NSF-Sri Lanka, Industry Collaborators and any other funding sources (This project proposal should not have received any funds previously).* | |
| USD……………………….. LKR …………………… | |
| **5. Investigators of Sri Lanka**  *Annex CVs’ and list of publications of all Investigators during the last 10 years.*  *0* | |
| **5.1 Principal Investigator**  *Principal Investigator should have a postgraduate research degree (PhD, MPhil) and publications in the relevant area. Applicants with MSc, MD or MS qualifications should have minimum of one year research component in the course and publications in the relevant area.* | |
| Name and Designation:  Institution:  Highest academic qualification obtained:  Date of award:  Area of expertise related to the proposed project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail :  STMIS Reg. No :  NIC No : |
| **5.2 Co-Investigator/s**  *Co-Investigators should have postgraduate qualifications and research experience supported with publications. Any other member of the research group who does not meet these criteria could be listed as Collaborators. Those who wish to read for postgraduate degrees under the proposed project are not eligible to be Co-Investigators* | |
| **Co-Investigator – 1**   1. Name and Designation:   Institution:  Highest academic qualification obtained:  Date of award:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail :  STMIS Reg. No :  NIC No : |
| **Co-Investigator – 2**   1. Name and Designation:   Institution:  Highest academic qualification obtained:  Date of award:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail :  STMIS Reg. No :  NIC No : |
| **Co-Investigator – 3**   1. Name and Designation:   Institution:  Highest academic qualification obtained:  Date of award:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail :  STMIS Reg. No :  NIC No : |
| **5.3 Industry Collaborator/s**  *Letters of Consent should be provided (Industry Collaborator: Annex II)* | |
| 1. Name and Designation:   Name of the Company/ Business  Company/Business registration  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Office :  Mobile :  Fax :  E-mail :  NIC No : |
| * 1. **Other Collaborator/s**   *Letters of Consent should be provided (Other Collaborators: Annex III)* | |
| 1. Name and Designation:   Institution:  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Office :  Mobile :  Fax :  E-mail :  NIC No : |
| 1. Name and Designation:   Institution:  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Office :  Mobile :  Fax :  E-mail :  NIC No : |
| (c) Name and Designation:  Institution:  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Office :  Mobile :  Fax :  E-mail :  NIC No : |
| **6.** **Investigators from China** | |
| **6.1 Principal Investigator** | |
| Name and Designation:  Institution:  Area of expertise related to the proposed project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail : |
| **6.2 Co-Investigator/s** | |
| **Co-Investigator – 1**  (a) Name and Designation:  Institution:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail : |
| **Co-Investigator – 2**  (b) Name and Designation:  Institution:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail : |
| **Co-Investigator – 3**  (c) Name and Designation:  Institution:  Area of expertise related to the proposed  project: | Mailing address :  Telephone  Office :  Mobile :  Fax :  E-mail : |
| **6.3 Collaborator/s** | |
| **Collaborator – 1**  (a) Name and Designation:  Institution:  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Fax :  E-mail : |
| **Collaborator – 2**  (b) Name and Designation:  Institution:  The contribution expected to be provided for the research project: | Mailing address :  Telephone :  Fax :  E-mail : |
| **7**. **Justification for Collaboration** | |
| **7.1 Brief information about national and international scenario in the proposed area of research** (*up to 250 words*) | |
|  | |
| **7.2 Briefly describe the Chinese research components including objectives** | |
|  | |
| **8. Institution/s where research is to be performed** | |
| **8.1 Principal Institution** | |
| **8.2 Other Institution/s** | |
| **9. State whether the institutions of the Principal Investigator from Sri Lanka and the collaborating Principal Investigator of China are already having a research collaboration with a signed Memorandum of Understanding (MoU)** | |
| Yes No  If “Yes” attach a copy of MoU signed between the institutions. | |

**SECTION B**

*\* Names and affiliations* ***should not be mentioned*** *in section B.*

**Title of the project :**

**Duration :**

|  |
| --- |
| **1. Summary**  (a)Explain briefly the research problem, research approach and expected outputs.  *Not exceeding one A4 page, font type Times New Roman, size 11, single space.* |
|  |
| (b) Give 3 – 5 keywords for the proposed project: |
|  |

|  |  |  |
| --- | --- | --- |
| 1. **Research Problem** | | |
| **2.1 Research problem/s** | | |
|  | | |
| **2.2 Analysis of the problem/s & rationale for the research question** | | |
|  | | |
| 1. **Comprehensive Literature Review (local and international including recent literature) AND the complete list of references in the relevant area.**   *(Attach additional sheets if necessary)* | | |
| **3.1 International** | | |
|  | | |
| **3.2 Local** | | |
|  | | |
| 1. **Originality & Innovativeness of the Proposed Work** | | |
|  | | |
| 1. **General and Specific Objectives of the Proposed Work** | | |
| **5.1 General Objective** | | |
|  | | |
| **5.2 Specific Objective/s** | | |
|  | | |
| 1. **Methodology** | | |
| **6.1 Describe the Methodology**  (*Attach additional sheets if necessary)* | | |
|  | | |
| **6.2 Describe the experimental design where applicable**  *Please complete relevant sections* | | |
| 6.2.1 Data/sample collection | | |
| 6.2.2 Study site | | |
| 6.2.3 Describe the study group and controls | | |
| 6.2.4 Validation and quality control of methods | | |
| 6.2.5 Cost effectiveness of proposed methodology | | |
| **6.3 Describe the method of data analysis** | | |
|  | | |
| 1. **Technical Feasibility** | | |
| **7.1 Human resource requirement** | | |
| 7.1.1 Principal Investigator  *Name and affiliation* ***should not be mentioned.***  Describe knowledge and research experience in the area related to the project work (*Please do not include publications; word limit -100 words)* | | |
|  | | |
| 7.1.2 Co-Investigator - 1  *Name and affiliation* ***should not be mentioned.***  Describe knowledge and research experience in the area related to the project work (*Please do not include publications; word limit -100 words)* | | |
|  | | |
| 7.1.3 Co-Investigator - 2  *Name and affiliation* ***should not be mentioned.***  Describe knowledge and research experience in the area related to the project work (*Please do not include publications; word limit -100 words)* | | |
|  | | |
| 7.1.4 Co-Investigator - 3  *Name and affiliation* ***should not be mentioned.***  Describe knowledge and research experience in the area related to the project work (*Please do not include publications ; word limit -100 words)* | | |
|  | | |
| **7.2 Work plan**  *Please attach the quarterly Gantt Chart to cover the proposed study, as per the format below* | | |
| Format Only | | |
| **7.3 Indicators & milestones of progress**  *Please list the milestones and indicators that will be used to measure the progress of the proposed Study* | | |
|  | | |
| 1. **Authorization**   *(Ethical clearance/necessary permission**should be submitted along with the application or within one month of the deadline for submission of applications)* | | |
| **8.1 Ethical consideration**  *(Ethical clearance should be submitted within one month of the deadline for submission of application)* | | |
| Relevance to the project | Relevant Not relevant | |
| If relevant, Ethical clearance obtained? | Yes No  *If Yes, attach a copy of ERC letter* | |
| If No, applied for Ethical clearance? | Yes No  *If yes, attach proof* | |
| **8.2 Permission from relevant authorities (Dept. of Wildlife, Forest Department etc.)** | | |
| Relevance to the project | Relevant Not relevant | |
| If relevant, necessary permission obtained? | Yes No  *If Yes, attach a copy of the permission letter* | |
| If No, applied for necessary permission? | Yes No  *If yes, attach proof* | |
| **8.3 Material Transfer Agreement** | | |
| Relevance to the project | Relevant Not relevant | |
| If relevant, Agreement signed? | Yes No  *If Yes, attach a copy of the signed Agreement* | |
| If No, arrangements made to sign? | Yes No  *If yes, attach proof* | |
| 1. **Indicate the human & environmental safety issues related to the project and how they are being addressed** | | |
|  | | |
| 1. **Budget of the Research Component** | | |
| **10.1 Financial support** | | |
| Is the proposed project currently being funded by any other source? Yes No | | |
| Have you applied/planning to apply for funding from any other Sri Lankan source of funding for the proposed research?  Yes No  *If Yes, please give details* | | |
| If Yes to above question/s, please give details and justify the request for co-funding from the NSF. | | |
| **10.2 Summary of the Budget for the Sri Lankan research component requested from NSF, Sri Lanka (In USD and LKR)**  *Funds should be requested only for essential items with adequate justification.*  *(Note: Equipment will not be provided )* | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | **1st Year** | | **2nd Year** | | **3rd Year** | | **Total** | | 1. **Personnel** | **USD** | **LKR** | **USD** | **LKR** | **USD** | **LKR** | | * **Research Student\*** |  |  |  |  |  |  |  | | * **Technical Assistant** |  |  |  |  |  |  |  | | * **Laborer/Other** |  |  |  |  |  |  |  | | **Sub Total (Personnel)** |  |  |  |  |  |  |  | | 1. **Consumables** |  |  |  |  |  |  |  | | 1. **Sample analysis (if outsourced)** |  |  |  |  |  |  |  | | 1. **Statistical analysis** |  |  |  |  |  |  |  | | 1. **Postgraduate registration fees** |  |  |  |  |  |  |  | | 1. **Travel & Subsistence within Sri Lanka** |  |  |  |  |  |  |  | | 1. **Miscellaneous** |  |  |  |  |  |  |  | | **GRAND TOTAL** |  |  |  |  |  |  |  |   \* Full-time Research Students registering for a Postgraduate Degree, can be allocated only for Principal Investigators with two years of postdoctoral research experience. For full time Research Students, not registering for postgraduate degree funds will be provided only up to two years | | |
| 1. **Budget Justification** | | | |
| **11.1 Personnel**  *Requests for personnel for the proposed project should not be made unless they are absolutely necessary. The Investigators should indicate and justify the type of personnel required.*  *Please refer the* ***Annexure IV*** *provided along with this application for rates of payment.* | | | |
| 1. Research Student\* 2. Full time for ……………………… years OR …..... months 3. Detailed description of work to be carried out by the Research Student      1. Research Student will be registering for a postgraduate degree – Yes No   If Yes, PhD MPhil | | | |
| 1. Technical Assistant 2. Full time/part time for ……………………… years OR …..... months 3. Detailed description of work to be carried out by the Technical Assistant:- | | | |
| 1. Laborers 2. No. of laborers required…………………………….. 3. Time period ……………………… days/months per laborer 4. Detailed description of work to be performed:- | | | |
| **11.2 Consumables**  *Attach the list and give a complete description of type (e.g. Chemicals, glassware specific to the project), quantity and estimated cost (in USD and LKR)* *with justification*  *Avoid over- estimation and include only the necessary consumables for this project.* | | | |
|  | | | |
| **11.3 Sample analysis (if outsourced)**  *Institution/department, type of analysis, no. of samples, estimated cost (in USD and LKR)* | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Year | Place of analysis | Type of analysis | No. of Samples | Estimated cost | | 1st Year |  |  |  |  | | 2nd Year |  |  |  |  | | 3rd Year |  |  |  |  | | | |
| **11.4 Statistical analysis** | | |
| Justification for requesting funds | | |
| 1st Year | | |
| 2nd Year | | |
| 3rd Year | | |
| **11.5 Postgraduate registration fees during the project period** *(in USD and LKR). (Refundable deposits will not be reimbursed)* | | |
| 1st Year | | |
| 2nd Year | | |
| 3rd Year | | |
| **11.6 Travel & Subsistence within Sri Lanka**  *As far as possible the Investigator should combine field work under the project with his/her work in the Institution. What should be requested for is additional travelling that cannot be carried out in the course of the Investigator’s other duties.*  *Give a detailed breakdown for each year (in USD and LKR) with justifications of the cost figures given in summary budget. Indicate no. of field visits, places to be visited and any other relevant details. (Refer the* ***Annexure IV*** *provided along with this application for the rates of payment)* | | |
| 1st Year   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Travel | | | | | | Purpose of visits | Places to be visited | Distance (Km) | No. of visits | Total cost for transport | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |   Subsistence for above field visits (please give calculation) | | | |
| 2nd Year   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Travel | | | | | | Purpose of visits | Places to be visited | Distance (Km) | No. of visits | Total cost for transport | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |   Subsistence for above field visits (please give calculation) | | | |
| 3rd Year     |  |  |  |  |  | | --- | --- | --- | --- | --- | | Travel | | | | | | Purpose of visits | Places to be visited | Distance (Km) | No. of visits | Total cost for transport | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |   Subsistence for above field visits (please give calculation) | | | |
| **11.7 Miscellaneous**  *Give complete breakdown with estimated cost (in USD and LKR). The funds for miscellaneous, should not exceed 10% of the total cost of the project. Funds for contingencies/unforeseen expenses cannot be considered.* | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Items | Estimated Cost | | | | | 1st Year | 2nd Year | 3rd Year | Total | |  |  |  |  |  | |  |  |  |  |  | | | |
| **11.8 Facilities available at the Institutions of the Investigators for the research project** | | | |
| Major equipment and other facilities available at the institution | | |
| 1. **Does the proposed project have potential to generate output of commercial value? If so, briefly explain how you propose to protect and share Intellectual Property rights (Joint publications, patents etc.)?**   *(Indicate if applicable)* | | |
|  | | |
| **13. Signatures of Investigators (to be signed, scanned and sent)** | | |
| 1. **………………………………**   (Principal Investigator)   1. **………………………………**   (Co-Investigator -1)   1. **………………………………**   (Co-Investigator -2)   1. **………………………………**   (Co-Investigator -3) | | ……………………….........  Date | | |
| **14. Recommendations *(to be signed and send the scanned copy)*** | | | | |
| *When forwarding the application, the Signatories are expected to consider the following aspects:*   * *no duplication in funding* * *the applicant will be able to devote sufficient time to carry-out the project.*   ***(If the applicants are from different Institutions, recommendations from each Institution should be submitted)*** | | | | |
| **14.1 For Principal Investigators from Universities** | | | | |
| I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.8). The application is recommended.  ……………………………………………...…… …………………………..  Name and Signature of Head of the Department Date | | | | |
| I recommend and forward the application.  …………………………………….… …………………………..  Signature of Dean of the Faculty Date | | | | |
| I recommend and forward the application.  ……………………………………….… …………………………..  Signature of the Vice Chancellor Date | | | | |
| **14.2 For Principal Investigators from Institutions/Organizations (Other than Universities)** | | | | |
| *When forwarding the application the Signatories are expected to consider the following aspects:*   * *no duplication in funding* * *the applicant will be able to devote sufficient time to carry-out the project.*   ***(If the applicants are from different Institutions, recommendations from each Institution should be submitted)***  I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.8). The application is recommended and forwarded.  …………………………………………….… …………………………..  Signature of Head of Institution/Organization Date | | | | |
| **14.3 For Co-Investigators (from universities/other institutions)**  **If there are more than three Co-Investigators, please insert additional recommendations** | | | | |
| **For Co-Investigator I**  I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.8). The application is recommended.  …………………………………………….… …………………………..  Signature of Head of Department/Institution Date  **For Co-Investigator II**  I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.8). The application is recommended.  …………………………………………….… …………………………..  Signature of Head of Department/Institution Date  **For Co-Investigator III**  I confirm that I have read the application and that the facilities will be made available for this project (Refer Item 11.8). The application is recommended.  …………………………………………….… …………………………..  Signature of Head of Department/Institution Date | | | | |

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| ***Research Grants Record (ongoing and completed) of the Principal Investigator during the last 10 years (2014-2023)***  ***(NSF and other funding sources)*** | | | | | | | |
| Grant No | Contribution (Principle Investigator/ Co-Investigator | Approved duration of the Grant  *(Dates)* | Title of the Project | Source of support | Total allocation | Status  [Ongoing/Completed/  Terminated/Cancelled] | Postgraduate degrees/No. of Publications/ No. of Communications |
|  |  |  |  |  |  |  |  |

***Annex II***

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| --- |
| ***For Sri Lankan Industry/s Collaborating with this Project*** |

(To be filled by the Industry Partner)

|  |  |
| --- | --- |
| **Name of the Company/s**  Address  Contact researcher/person  (Please attach a CV) | |
| **Contribution towards the project** | |
| By kind | By cash |
|  |  |
| **Facilities that can be made available for the research project** | |
| **Office Laboratory/hrs per week**  Space:  Equipment:  (Type)  Other  (Please specify) | |
| Any other comments | |

……………………………….. …………………………………………….

Date Name, Designation and Signature of the Industry Partner (CEO/Authorized Person)

***Annex III***

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| --- |
| ***Consent to be a Collaborator for the Research Project from Sri Lanka*** |

(To be signed by the Sri Lankan Collaborator/s)

**Director General**

**National Science Foundation**

**Research Project on - ……………………………………………..**

This is to convey my/our willingness to work as a Sri Lankan collaborator/s of the research project referred to above, supporting and contributing to the realization of the project objectives stated in the grant application.

I/we, am/are understand the support and assistance to be extended to the research team by providing necessary facilities and/or expert opinion and guidance to carry-out the project successfully.

Yours sincerely,

…………………………………….

(Signature)

Name of the Sri Lankan Collaborator/s : ……………………………………………

***Annex IV***

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| --- |
| ***Prevailing Rates of Payments for Estimation of the Budget*** |

1. Monthly allowance of Research Students

Registered for a PhD or MPhil - Rs. 60,000/=

Not registered for a postgraduate research degree - Rs. 50,000/=

1. Monthly allowance of Technical Assistants

With G.C.E. (A/L) or / G.C.E. (O/L) Qualifications - Rs. 25,000/=

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1. Subsistence rates – Have to be paid according to Government Circulars –

*Management Service Circular No. 34*

Grantee - Maximum - Rs. 500/= (according to the salary)

Research Students allowance - Rs. 500/=

Technical Assistants allowance - Rs. 400/=

1. Travel – Rs. 25/- per Km (NSF rate)
2. Laborers - Rs. 739.53 + C.O.L Rs. 260.00 per day + Interim Allowance Rs. 76.13 - As per DMS 02/2016 Circular

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| ***Guidelines for Applicants*** |

1. Applications submitted jointly (Sri Lankan and Chinese partners) will be eligible for evaluation. Proposals submitted individually from any side without a Sri Lankan or Chinese collaborator will not be processed further.
2. Proposals should have industry and/or civil society collaborators. Proposals with financial support or in-kind support from industry/civil society collaborators are given priority
3. Applicants for the ICRP Grants Scheme must be citizens of and residing in Sri Lanka registered with the STMIS database of the NSF.
4. The Sri Lankan research team should be led by a scientist from a university/ research institute and must include an industry partner (Annex II).
5. The Principal Investigator should have a permanent position. If on contract, the contract period should cover the duration of the project.
6. Those who wish to read for postgraduate degrees under the proposed project are not eligible to be Principal Investigator/Co-Investigators
7. If the Principal Investigator is not from a University and the Research Student is registering for a postgraduate degree, a Co-Investigator from the University where the Research Student is registering should be included to the Research Team.
8. A scientist is eligible to hold only 02 ongoing grants as the Principal Investigator. Applicants who have 02 ongoing grants should not apply for a new grant, until the Final Report of the previous grant is submitted.
9. The proposed research project should necessarily be an original investigation.
10. A comprehensive literature review should be done and all details should be provided together with the list of references.
11. Maximum project period should not exceed 03 (three) years. However, for Principal Investigators who have not received any Research Grants before (NSF or other funding sources), the duration of the project should not exceed two years and the total budget should not exceed Rs 2 million, excluding allocations for Research Personnel.
12. The total Project Cost by the Sri Lankan Research Team should not exceed USD 28,000. The Sri Lankan research component is expected to be funded collectively by NSF-Sri Lanka, Industry partner and any other funding sources. The Chinese component will be funded by the NSFC.
13. The budget should be reasonable and justified in detail. Equipment will not be provided for this Call considering current financial constraints.
14. A detailed time-based work plan (Gantt chart) should be included stating the proposed activities, time frames and key performance indicators clearly.
15. Research proposals which address inter-disciplinary work, require to have expertise from each of the relevant disciplines, and be supported with letters of consent from such collaborators, if any (Annex III).
16. Projects that require ethical clearance/ necessary permissions should submit the certificate within one month from the deadline for submission of the applications to the NSF. The fee for ethical clearance, if any, will be reimbursed if the application is approved for funding.
17. An English translation of the Project Proposal to be submitted by the Chinese counterpart collaborators to the National Natural Science Foundation, China (NSFC) should also be attached to the application.
18. The proposals will be evaluated and recommended by the NSF and NSFC jointly.
19. Only one grant will be awarded to an Investigator as the Principal Investigator at this call for applications.
20. Applicants may indicate persons, that they think should not review the project for reasons of conflict, for consideration by NSF.
21. Soft copy of the application should be sent in both MS Word and PDF formats.
22. Late, Incomplete and Inaccurate applications **WILL NOT** be considered.
23. Decision of NSF and NSFC pertaining to evaluation and selection of proposals will be the final.

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| **CHECK LIST** | |  |
|  | **Completed application form** |  |
|  |  |  |
|  | **Curriculum vitae of all Investigators** |  |
|  |  |  |
|  | **Research grants record (Annex I)** |  |
|  |  |  |
|  | **Sri Lankan Industry/s Collaborating with this Project (Annex II)** |  |
|  |  |  |
|  | **Consent to be a Collaborator for the Research Project from Sri Lanka (Annex III)** |  |
|  |  |  |
|  | **Concurrence of the Institution/s which facilitates the research** |  |
|  |  |  |
|  | **Gantt chart** |  |
|  |  |  |
|  | **A copy of the Project Proposal submitted by the Chinese collaborators to the NSFC (English translation)** |  |
|  |  |  |
|  | **A copy of the MoU between the two Collaborating Sri Lankan and Chinese Institutes – if a collaboration already exists (Optional)** |  |