

Project Proposal

(Forest Restoration Research Unit, Chiang Mai University)

SCORE - Science-based Community Outreach for Restoring Forest Ecosystems

** Please fill it out briefly with a total length less than 14 pages in total (font size 11 at A4 size).*

For Mid-Scale Standard Grant – For 1st Year of 3-year project

1. Project objectives

		Y1	Y2	Y3
1	A “kick-off” workshop, to brief and confirm participating organizations and perform a “needs assessment”.	Participants from 20+ organizations (including schools)	n/a	n/a
2	Educators’ manual – basic nursery/field protocol + new technologies (VR, AR, drones)	Drafted,	Reviewed, validated and printed	Distributed
3	‘Train-the-trainers’ workshops – NGO educators & teachers – introduction to new technologies. (VR, AR, drones etc.).	1 event per year 10-20 participants	1 event per year 10-20 participants	1 event per year 10-20 participants
4	Community/NGO workshops – basic restoration techniques and tree-tracking technologies.	1 event per year 10-20 participants	1 event per year 10-20 participants	1 event per year 10-20 participants
5	Schools’ events – restoration experiences for the younger generation	Reaching > 500 participants/year	Reaching > 500 participants/year	Reaching > 500 participants/year
6	Start-up grants for new community tree nurseries – material support for existing nurseries	2 start-up grants and 4 support grants	3 start-up grants and 6 support grants	3 start-up grants and 6 support grants
7	New online seed swap facility via the CMU seed bank	Web-based seed swap. CMU seed bank enlarged.	Maintain web-site CMU seed bank.	Maintain web-site CMU seed bank.
8	Tree-planting events (all participating organizations) and follow-up, including maintenance and monitoring.	1 ha (up to 2,500 trees). Planting, maintenance and monitoring events.	1.5 ha (c4,500 trees) Planting, maintenance and monitoring events.	2 ha (c 6,000 trees) Planting, maintenance and monitoring events.
9	Structured online learning facility	Online course developed and uploaded	Website maintained, up to 60 certifications	Website maintained, up to 60 certifications
10	Annual “Forest Celebration” event, at which all organizations share their work and exchange experiences.	1 event >100 participants.	1 event >100 participants.	1 event >100 participants.

The most effective way to conserve and enhance biodiversity is to restore and expand wildlife habitats. This is particularly true of tropical forests, which are home to around half the world's plant and animal species. The framework species method of forest-ecosystem restoration (developed by Chiang Mai University's Forest Restoration Research Unit, FORRU-CMU since 1994) can rapidly recover the species richness of plant and animal communities close to pre-disturbance levels in 10-20 years¹. Although rigorous scientific research has proven the effectiveness of such techniques, dissemination of the techniques to restoration practitioners is essential, to promote their widespread adoption. The SCORE project, addresses this issue, by providing science-based, training to those directly involved in restoration i.e. communities, the NGO's that support them and schools, to guarantee trans-generational learning and continuity. The project is located in mountainous northern Thailand, with its wide range of forest types, each supporting distinctive floras and faunas, within the officially recognized Indo-Burma Biodiversity Hotspot.

The project will provide stakeholders with the skills and knowledge that they need to implement forest-ecosystem restoration around their communities, not only for biodiversity, but also for forest products (to support local livelihoods), watershed services (to secure productive agricultural systems downstream) and climate-change mitigation (through rapid carbon sequestration). SCORE will employ the latest technological innovations to ensure adoption of science-based methods in engaging ways, including virtual and augmented reality tools, to train practitioners ahead of field work, My Farm Trees² (phone app for monitoring planted trees), drones, to assess tree cover, camera traps, to detect wildlife recovery and several others.

The project will adopt a "train-the-trainers" approach, by producing a instructors' manual and running workshops for trainers and school teachers, to pass on the skills and knowledge to others. The project will also include construction of a new online learning platform that will be hosted on FORRU-CMU's existing website (www.forru.org) enabling remote learners to gain experience of forest restoration techniques and certify their achievements. FORRU-CMU will also continue with schools' event, assisting teachers and school children with seed collection and growing trees in nurseries. There is also provision within the project to provide technical and material support for the establishment and maintenance of community tree nurseries and to engage participants directly in tree planting, maintenance and monitoring.

SCORE will not only result in capacity building and the establishment or enrichment of community forests, but will also address the growing frustration among community members and school children with the failure of governments to take effective action to tackle biodiversity loss. It will harness the abundant energy and enthusiasm of local people and the younger generation for positive direct action, by providing them with the skills and knowledge that will ensure that their efforts to restore forest ecosystems, and the biodiversity they contain, are effective.

1.1 Contributions towards targets of "Post-2020 Global Biodiversity Framework" (GBF)

The vision of the GBF is to *restore* biodiversity by 2050, benefiting people. This can only be achieved by restoring plant/animal habitats where they have been destroyed. SCORE contributes particularly towards restoration of terrestrial ecosystems — **Target 2**.

¹<https://www.forru.org/library?t=12&page=2>

²<https://geofarmer.org/myfarmtrees-thailand>

“Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems.”

SCORE focuses on restoring tropical forests—the most biodiversity-rich habitat on Earth. Furthermore, the forest plots, being restored under SCORE, will be positioned so as to increase connectivity among remaining forest fragments.

The educational focus of SCORE supports GBF **Target 20: “Target 20. Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research.”**

The skills and knowledge, to be disseminated via SCORE, are all based on FORRU-CMU’s research outputs, as well as the indigenous knowledge of the many communities we’ve worked with over more than 30 years. SCORE aims to educate the decision makers of the future, enabling them to better revive and manage biodiversity and the habitats that support it.

Finally, SCORE will contribute towards the enabling conditions, identified as critical in the GBF for its successful implementation, notably “greater access to education”

“Enabling Condition 17. “... success will depend on ... greater access to education...and addressing the full range of indirect drivers of biodiversity ...”

Our project also aligns with and contributes towards 3 of the **UN’s Sustainable Development Goals (SDGs)**:

- 4. Quality Education (“*inclusive and equitable quality education and life-long learning*”)
- 13. Climate Action (“*urgent action to combat climate change*”)
- 15. Life on Land (“*restore ... terrestrial ecosystems*”)

2. Project implementation plan

(Please describe the projects by year and items.) Note: For project, please describe not only fiscal year for which this application is being submitted (“applying FY”, hereafter) but also other FY(s).

(1) Applying FY – 1st year of 3-year project

1. **The kick-off workshop** – will serve two functions i) introduce the project to potential participating community organizations, NGO’s and schools and ii) gather information for a “needs-assessment” to determine which organizations require each project activity, thus refining the project implementation plan. Workshop participants will be drawn from FORRU extensive contact network, accumulated over the unit’s 30-year history of working in northern Thailand.
2. **Training manual** – we will produce a core text book for the “train-the-trainers” project component with clear step-by-step instructors for implementing restoration tasks. The manual will include teaching tools based on the new technologies (AR, VR, drones, phone apps and camera traps), which have not been covered in FORRU-CMU’s previous education materials

3. **Train-the-trainers' workshops** – for NGO educators & school teachers covering the teaching of basic restoration techniques and the new supportive technologies (VR, AR, drones etc.). The workshops should enable participants to train their co-workers in restoration techniques, well beyond the project period, thus increasing project sustainability.
4. **Community and NGO workshops** – these practical workshops will assist local communities, and the NGO's that support them, with planning, implementing and monitoring small-scale restoration plots near their communities. Participants will be introduced to the use of drones to map restoration sites and to monitor progress with re-establishment of tree cover, as well as camera traps to monitor the recovery of wildlife. We will also be introducing participants to the MyFarmTrees² (MFT) app, whereby planted trees can be verified opening the way for local communities to benefit from carbon credit. The workshops will be implemented in collaboration with the trainees from the trainers/teachers, providing them with further support, so that they can continue to build community capacity well beyond the completion of SCORE.
5. **Schools support** – a growing number of N. Thailand schools continue to request FORRU-CMU's assistance with implementing biodiversity- and forest-related activities. Therefore, we have retained provision within SCORE to maintain FORRU-CMU's schools' program. We anticipate that schools' events will reach at least 500 school children and their teachers/year. In addition to regular activities (seed collection, nursery tasks and tree planting), we will be introducing novel teaching tools using augmented and virtual reality (developed by **National Science and Technology Development Agency** of Thailand, NSTDA). Such systems allow school children to train in seed collection, tree planting and maintenance techniques in simulated environments and fast forward the restoration results. This enables them to understand restoration concepts and skills in the classroom, ahead of field work and to develop effective restoration strategies. NSTDA has used FORRU-CMU's research data to construct the virtual forests.
6. SCORE will also support communities/schools to establish and maintain **tree nurseries** with small grants and practical advice, allowing community members to produce their own trees for planting events.
7. **Seed swapping facility** – lack for seed of native forest trees limits tree diversity in early restoration plantings. Therefore, SCORE will establish a seed swapping facility, whereby project participants can deposit excess seeds they collect in the seed bank at the Doi Suthep Nature Education Centre (administered by Chiang Mai University). They will also be able to withdraw seeds of species they have not found, thus maximize the diversity of tree species produced in each nursery. A list of seed available will be maintained on FORRU-CMU's website.
8. FORRU-CMU will organize **annual tree-planting events** around communities, mostly within Doi Suthep-Pui National Park, following the framework-species method in June each year. This will provide SCORE participants with opportunities to plant, nurture and monitor trees they have grown themselves, and thus foster a close connection with the forests they have restored.
9. We will work with our website developer to construct a **new modular online course** for SCORE participants, covering forest restoration concepts and complementing the range of hands-on SCORE activities. The site will include the ability to submit written work for evaluation by FORRU staff, grading and award of certificates.
10. We will continue with annual "**Forest Celebration**" events, which proved immensely popular under the previous YFR project. The events enable sharing of experiences among all participating organizations with booths and presentations, and include performances, activity stations and collaborative arts projects.

- (2) FY– 2nd year of 3-year project
The plan for Y2 will be the same as for Y1, but without the start-up elements (kick-off workshop). The training manual, developed in Y1, will be printed and distributed and used in train-the-trainer workshops. The online course (developed in Y1) should be in use and we will monitor its use and the number of certificates awarded.
- (3) FY– 3rd year of 3-year project
The implementation plan for Y3 will be the same as for Y2.

3. Expected concrete activity results

Note: For project, please describe not only applying FY but also other FY(s).

- (1) Applying FY – 1st year of 3-year project
1. **Kick-Off Workshop**: attended by at least 20 organizations. Needs assessment completed. Schedule of project activities refined.
 2. **Teachers’ training manual** – 1 first edition designed
 3. **Train-the-trainers’ workshops**: 20 NGO educators/school teachers trained how to use novel teaching tools and how to teach basic restoration methods
 4. **Community and NGO workshops** –training for 10-20 organizations.
 5. **Schools support** – reaching at least 500 school children and their teachers. Efficacy of AR and VR teaching tools evaluated.
 6. **Tree-nursery support** – 2 nursery start-up grants provided and up to 4 existing tree nurseries supported with materials and technical support.
 7. **Seed swapping** – established and monitoring number of organizations using seed swap facilities (via CMU seed bank) to maximize diversity of tree species propagated in community nurseries.
 8. **Tree planting** – up to 2,500 trees of framework species planted for biodiversity conservation. Technical support for other community led tree planting initiatives.
 9. **Online learning resources** designed, reviewed and made available online.
 10. One “**Forest Celebration**” event implemented (>100 participants).
- (2) FY – 2nd year of 3-year project
1. **Teachers’ training manual** –printed (200 copies), distributed and used to train the trainers’ workshop
 2. **Train-the-trainers’ workshops**: 20 NGO educators/school teachers trained how to use novel teaching tools and how to teach basic restoration methods
 3. **Community and NGO workshops** –training for 10-20 organizations.
 4. **Schools support** – reaching at least 500 school children and their teachers. Efficacy of AR and VR teaching tools evaluated.
 5. **Tree-nursery support** – 2 nursery start-up grants provided and up to 4 existing tree nurseries supported with materials and technical support.
 6. **Seed swapping** – established and monitoring number of organizations using seed swap facilities (via CMU seed bank) to maximize diversity of tree species propagated in community nurseries.
 7. **Tree planting** – up to 4,500 trees of framework species planted for biodiversity conservation. Technical support for other community led tree planting initiatives.
 8. **Online learning resources** designed, reviewed and made available online.
 9. One “**Forest Celebration**” event implemented (>100 participants).
- (3) Applying FY – 3rd year of 3-year project

Same as Y2 with the addition of final report including evaluation of new technology-based teaching tools.

4. Activity schedule

Note: For project, please, describe not only applying FY but also other FY(s).

(1) Applying FY - 1st year of 3-year project

Activities/Tasks	2026									2027		
	A	M	J	J	A	S	O	N	D	J	F	M
Kick-off workshop; needs assessment		X										
Educators' manual - writing		X	X	X	X	X	X	X	X	X	X	X
Train-trainers' workshops				X								
Community workshops		X						X				
Schools' education events	X	X	X	X	X	X	X	X	X	X	X	X
Nursery support			X	X	X	X						
Seed swap system establishment (X) & use (x)	X	x	x	x	x	x	x	x	x	x	x	x
Planting events			X									
Online learning systems design	X	X	X	X	X	X	X	X	X	X	X	X
Forest Celebration event												X
Reporting and annual re-application							X	X				

(2) FY - 2nd year of 3-year project

Activities/Tasks	2027									2028		
	A	M	J	J	A	S	O	N	D	J	F	M
Educators' manual – printing (X); distribution and use (x)	X	x	x	x	x	x	x	x	x	x	x	x
Train-trainers' workshops		X										
Community workshops			X									
Schools' education events	X	X	X	X	X	X	X	X	X	X	X	X
Nursery support			X	X	X	X						
Seed swap system in use and monitoring (x)	x	x	x	x	x	x	x	x	x	x	x	x
Planting events			X	X								
Online learning systems testing (X); use and certificate awarding (x)	X	X	X	x	x	x	x	x	x	x	x	x
Forest Celebration event												X
Reporting and annual re-application	X						X	X				

(3) FY - 3rd year of 3-year project

Activities/Tasks	2028									2029		
	A	M	J	J	A	S	O	N	D	J	F	M
Educators' manual - distribution and use (x)	x	x	x	x	x	x	x	x	x	x	x	x
Train-trainers' workshops		X										
Community workshops			X					X				
Schools' education events	X	X	X	X	X	X	X	X	X	X	X	X
Nursery support			X	X	X	X						
Seed swap system in use and monitoring (x)	x	x	x	x	x	x	x	x	x	x	x	x
Planting events			X	X								
Online learning systems design and testing (X); use and certificate awarding (x)	x	x	x	x	x	x	x	x	x	x	x	x
Forest Celebration event												
Reporting and annual re-application	X						X	X				X



มูลนิธิสถาบันราชพฤกษ์
Rajapruek Institute Foundation

27th November 2025

Dear Sir or Madam,

Letter of Support for the SCORE Project

This letter is to confirm that Rajapruek Institute Foundation (RIF) approves of the project: "Science-based Community Outreach for Restoring Forest Ecosystems (SCORE)", being implemented by Chiang Mai University's Forest Restoration Research Unit, and that we are willing to act as external advisors and provide guidance for successful project implementation, as needed.

Through their educational work, FORRU-CMU has provided practical forest restoration training for youth, equipping them with the knowledge and skills to take meaningful action in shaping their environmental future. The SCORE project will build on this foundation by expanding engagement to additional community groups and NGOs, while introducing new components such as VR- and AR-based learning tools, "train-the-trainer" workshops, online modular courses, and a web-based seed-exchange system. We believe that the SCORE project will strengthen community capacity, increase participation in restoration activities, and support long-term improvements to the forests.

The aims of the SCORE project coincides with RIF's mission—to increase forest cover in Thailand through tree planting and by providing education, particularly to the community and the younger generation. Furthermore, we have had a long and fruitful partnership with the project implementers, FORRU-CMU, over many years. Therefore, we can vouch for the unit's reliability in delivering project outputs, as well as accurate reporting and accounting.

Consequently, we approve of the SCORE project wholeheartedly and endorse this grant application.

Yours faithfully,

Kitiya Sophonpanich

Secretary-General of Rajapruek Institute Foundation

APPROVAL LETTERS – THAI SCHOOLS



Maehoprawittayakom School
132,Village No. 3, Maehopra Subdistrict,
Mae Taeng District, ChiangMai Province
50150

November 26, 2015

Subject: Letter of Approval in support of the project, SCORE – Science-based Outreach for Restoring Forest Ecosystems

Dear Sir or Madam,

This letter is to confirm that Maehoprawittayakom School is pleased to participate in the project SCORE – Science-based Outreach for Restoring Forest Ecosystems, proposed by Chiang Mai University's Forest Restoration Research Unit for funding support from the Keidanren Nature Conservation Foundation.

We have been informed of the range of activities planned for participating organizations and fully support the project's objectives, which align well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will complement and enhance our students' learning experiences in these areas. Our staff and students are enthusiastic about taking part in this valuable program.

We therefore wholeheartedly endorse FORRU-CMU's application to the Keidanren Nature Conservation Foundation for funding.

Yours faithfully,

Signed

Surapol Yakampor

Director of Maehoprawittayakom School



No. 8393(15)19.2/125

Chiang Mai University Demonstration School
239 Huay Kaew Road
Suthep, Muang District, Chiang Mai
Thailand 50200

27 November 2025

Subject: Letter of Approval in support of the project, SCORE – Science-based Outreach for Restoring Forest Ecosystems

Dear Sir or Madam

This letter is to confirm that Science Classrooms Project in Chiang Mai University - Affiliated Chiang Mai University Demonstration School (SCIUS-CMU) is pleased to participate in the project SCORE – Science-based Outreach for Restoring Forest Ecosystems, proposed by Chiang Mai University's Forest Restoration Research Unit for funding support from the Keidanren Nature Conservation Foundation. We have been informed of the range of activities planned for participating organizations and fully support the project's objectives, which align well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will complement and enhance our students' learning experiences in these areas. Our staff and students are enthusiastic about taking part in this valuable program.

We therefore wholeheartedly endorse FORRU-CMU's application to the Keidanren Nature Conservation Foundation for funding.

Yours faithfully

(Lect. Dr. Surasak Maotheuak)

director

SCIUS-CMU

Tel. 0 5394 1227

Email: scius@cmu.ac.th

APPROVAL LETTERS – THAI SCHOOL



Varee Chiangmai School

59 Moo 6, Mahidol Road, Nhong Hoi, Muang, Chiang Mai 50000
0-5314-0232

29 November 2025

Ref: VCS 1150100023/ 1437

Subject: Letter of Approval in support of the project, SCORE – Science-based Outreach for Restoring Forest Ecosystems

Dear Sir or Madam,

This letter is to confirm that Varee Chiangmai School is pleased to participate in the project SCORE – Science-based Outreach for Restoring Forest Ecosystems, proposed by Chiang Mai University's Forest Restoration Research Unit for funding support from the Keidanren Nature Conservation Foundation.

We have been informed of the range of activities planned for participating organizations and fully support the project's objectives, which align well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will complement and enhance our students' learning experiences in these areas. Our staff and students are enthusiastic about taking part in this valuable program.

We therefore wholeheartedly endorse FORRU-CMU's application to the Keidanren Nature Conservation Foundation for funding.

Yours sincerely,

Mrs. Varee Patravanih
Licensee of Varee Chiangmai School

APPROVAL LETTER – INTERNATIONAL SCHOOL



Chiang Mai, November 17.11.2025

Subject: Letter of Approval for SCORE (Science-based Community Outreach for Restoring Forest Ecosystems)

Dear Sir or Madam,

This letter is to confirm that the Christian German School Chiang Mai is pleased to participate in the SCORE project, to be implemented by Chiang Mai University's Forest Restoration Research Unit (FORRU-CMU).

The project aligns well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will enhance our student's learning experiences, and our staff and students are enthusiastic about taking part in this valuable program.

We have been entirely satisfied with the performance of FORRU-CMU staff during past projects, and I can personally attest to their expertise and dependability.

Sincerely,

Sascha Stemmer
Marketing Manager

Christian German School Chiang Mai (CDSC)
83/1 Ban Bua Krok Nua, T. Tha Wang Tarn, A. Saraphi
Chiang Mai 50140, Thailand

Phone: +66 (0) 52 080 712
E-Mail: marketing@cdsc.ac.th
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Krungthai Bank | Account-No: 982-0-01260-0 | SWIFT: KRTHTHBK



APPROVAL LETTERS – INTERNATIONAL SCHOOLS



"To provide your child with an education that forms a *solid foundation* not only for successful academic study, but also for a *peaceful and fulfilling way of life.*"

November 25, 2025

Subject: Letter of Approval in support of the project, SCORE – Science-based Outreach for Restoring Forest Ecosystems

Dear Sir or Madam,

This letter is to confirm that Panyaden International School is pleased to participate in the project SCORE – Science-based Outreach for Restoring Forest Ecosystems, proposed by Chiang Mai University's Forest Restoration Research Unit for funding support from the Keidanren Nature Conservation Foundation.

We have been informed of the range of activities planned for participating organizations and fully support the project's objectives, which align well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will complement and enhance our students' learning experiences in these areas. Our staff and students are enthusiastic about taking part in this valuable program.

We therefore wholeheartedly endorse FORRU-CMU's application to the Keidanren Nature Conservation Foundation for funding.

Sincerely,

A handwritten signature in black ink that reads "Owen Haywood".

Owen Haywood

Service Learning Coordinator
Panyaden International School
h.owen@panyaden.ac.th
0824282711



November 27, 2025

Subject: Letter of Approval in support of the project, SCORE – Science-based Outreach for Restoring Forest Ecosystems

Dear Sir or Madam,

This letter is to confirm that The Chiang Mai Christian School is pleased to participate in the project SCORE – Science-based Outreach for Restoring Forest Ecosystems, proposed by Chiang Mai University's Forest Restoration Research Unit for funding support from the Keidanren Nature Conservation Foundation.

We have been informed of the range of activities planned for participating organizations and fully support the project's objectives, which align well with our school's commitment to environmental sustainability. The project's focus on hands-on restoration and ecological education will complement and enhance our students' learning experiences in these areas. Our staff and students are enthusiastic about taking part in this valuable program.

We therefore wholeheartedly endorse FORRU-CMU's application to the Keidanren Nature Conservation Foundation for funding.

Yours faithfully

A handwritten signature in blue ink that reads "Ramphan". Below the signature is a red circular stamp with Thai text. The text below the stamp reads "Mrs. Ramphan Sakunpansap School Manager and Director".

Mrs. Ramphan Sakunpansap
School Manager and Director