FUNDING PROPOSAL

# Restoration and Disaster-Resilient Rehabilitation of the University of Peradeniya Following the Ditwah Cyclone Floods

## 1. Background and Situation Analysis

Sri Lanka recently experienced severe flooding and landslides triggered by the Ditwah cyclone, causing widespread disruption to lives, livelihoods, and critical infrastructure. Among the most severely affected public institutions was the University of Peradeniya, the country's oldest and largest comprehensive university, located in a geographically sensitive river basin and hilly terrain.

Prolonged heavy rainfall led to flooding, slope failures, erosion, and landslides within the university premises, significantly damaging academic buildings, laboratories, hostels, service facilities, electrical systems, and access infrastructure. The disaster not only interrupted academic and research activities but also posed serious safety risks to students, staff, and surrounding communities.

**The current estimated loss to the University of Peradeniya amounts to approximately LKR 4 billion.**

## 2. Extent of Damage to University Infrastructure

The Ditwah cyclone-induced flooding caused extensive damage across multiple faculties and common facilities of the University of Peradeniya. The Faculty of Management, Faculty of Veterinary Medicine and Animal Sciences, and the Faculty of Agriculture were among the most severely affected, with floodwaters damaging lecture halls, laboratories, libraries, auditoriums, cafeterias, recreational areas, and severely disrupting the electricity supply and internet connectivity. Several retaining walls failed or were critically weakened, increasing the risk of further slope instability and structural damage.

In addition, major common university facilities sustained significant damage, including the University Gymnasium, a key venue for sports activities as well as official events such as graduation ceremonies, the swimming pool, and the main university grounds. Residential infrastructure was also heavily impacted, particularly Sarasavi Medura and Seneka Bibile Halls which together provide accommodation for over 1,300 undergraduate students, resulting in displacement and disruption to student life. Culturally and socially significant landmarks such as the Prof. Ediriweera Sarachchandra Open Air Theatre and essential early childhood facilities including the University Pre-School/Day Care Centre were also damaged. Furthermore, a number of staff quarters and the University Works Department, which is responsible for campus-wide maintenance and repair services, were adversely affected, further constraining recovery efforts (Annexure I ).

Of particular concern was the severe impact on the **Veterinary Teaching Hospital**, the **only veterinary teaching hospital in Sri Lanka affiliated with the Faculty of Veterinary Medicine and Animal Sciences**. The hospital was extensively inundated, resulting in the submergence and damage of critical **hospital equipment, theatre tables, and anaesthetic machines**, significantly disrupting veterinary education, clinical training, and essential animal healthcare services at the national level.

Figure 1: University of Peradeniya Gymnasium before and after the flooding

Figure 2. University of Peradeniya Prof. Ediriweera Sarachchandra Open Air Theatre before and after the flooding

Figure 3. Flood damage in the IT Centre, University of Peradeniya

Figure 4. Flood damage to the Department of Animal Science, Faculty of Agriculture, University of Peradeniya

Figure 5. Flood damage to the Centre for Aquatic Animal Disease Diagnosis and Research (CAADDR), Faculty of Veterinary Medicine and Animal Science

Figure 6. Flood damage to the Farm Animal Hospital and the Biochemistry Laboratory, the Faculty of Veterinary Medicine and Animal Science

Figure 7. Flood damage to the Centre for Distance and Continuing Education (CDCE) at University of Peradeniya


Figure 8: Flood damage to the University of Peradeniya Gymnasium




Figure 9. Flood damage to the University Pool

Figure 10. Flood damage to the Faculty of Management, University of Peradeniya

Figure 11. Flood damage to the Works Department, University of Peradeniya

## 3. Problem Statement

The Ditwah cyclone-induced floods exposed critical vulnerabilities in campus infrastructure, slope stability, drainage systems, and emergency preparedness mechanisms. Without timely restoration and disaster-resilient upgrading, the university faces:

(a) Continued risk of landslides and erosion during future extreme weather events
(b) Disruption of higher education and research activities
(c) Loss of valuable scientific equipment and learning resources
(d) Safety threats to students, staff, and on-campus childcare facilities
(e) Limited early-warning capacity during emergencies, particularly during power failures

Addressing these challenges requires immediate technical, infrastructural, and institutional interventions aligned with sustainable development and disaster risk reduction principles.

## 4. Overall and Specific Objectives

**Overall Objective:**
To restore damaged infrastructure at the University of Peradeniya while strengthening disaster resilience, safety, and preparedness in line with UNESCO's priorities on education, science, and sustainable development.

**Specific Objectives:**

1. To rehabilitate flood- and landslide-affected areas using scientifically sound and sustainable engineering solutions.
2. To restore essential academic, service, and utility facilities disrupted by the cyclone.
3. To relocate high-risk facilities to safer locations within the campus.
4. To strengthen campus-wide emergency preparedness and early warning systems.
5. To document the scientific and technical contributions of university staff and students during the disaster response.

## 5. Proposed Restoration and Rehabilitation Plan

The proposed restoration plan will include the following key components:

**(a) Establishment of Gabion Walls**
Construction of gabion retaining structures in identified high-risk areas to control erosion, stabilize riverbanks, and prevent further slope failures.

**(b) Slope Stabilization Measures**
Implementation of slope stabilization techniques based on geotechnical assessments, including drainage improvements, reinforcement, and bioengineering solutions.

**(c) Replacement of Damaged Equipment**
Procurement and installation of essential laboratory, teaching, and service equipment damaged beyond repair by flooding.

**(d) Relocation of Vulnerable Facilities**
Relocation of critical facilities such as the University Daycare Centre and the University Works Department from flood- and landslide-prone zones to safer locations within the campus.

**(e) Replacement of Transformers and Electrical Infrastructure**
Restoration and upgrading of damaged transformers and associated electrical systems to ensure uninterrupted and safe power supply.

**(f) Establishment of a New Emergency Siren System**
Installation of a campus-wide siren and alert system for the Security Office, designed to function during power failures, to enhance emergency communication and evacuation readiness.

## 6. Role of University Staff and Students

During and after the disaster, the **University of Peradeniya played a vital national role** through the expertise and voluntary commitment of its academic staff and students, particularly from the **Departments of Civil Engineering and Geology**.

Key contributions included:

(a) Rapid assessment and analysis of landslides and slope instability
(b) Technical advice to university authorities and local agencies
(c) Field investigations, mapping, and risk analysis
(d) Student-led and staff-supervised support activities during the emergency phase

The project will support the **documentation and public dissemination** of these contributions to highlight the university's role as a national knowledge hub in disaster response, risk assessment, and resilience building.

## 7. Expected Outcomes

- Restored and disaster-resilient infrastructure across the university campus
- Reduced risk of future flood- and landslide-related damage
- Improved safety for students, staff, and on-campus service users
- Strengthened emergency preparedness and early warning capacity
- Increased public awareness of the role of higher education institutions in disaster risk reduction

## 8. Beneficiaries

- Undergraduate and postgraduate students of the University of Peradeniya
- Academic, administrative, and technical staff
- Children and families using the University Daycare Centre
- Surrounding communities benefiting from expert assessments and risk reduction knowledge

## 9. Alignment with UNESCO Priorities

This proposal aligns closely with UNESCO's strategic priorities, particularly: (a) **Education in emergencies and resilience of education systems,** (b) **Science-based disaster risk reduction and climate adaptation** and (c) **Capacity building and knowledge sharing for sustainable development**

## 10. Implementation and Institutional Capacity

The University of Peradeniya possesses strong institutional capacity, with multidisciplinary expertise in engineering, earth sciences, environmental management, and disaster studies. Implementation will be led by the university administration in collaboration with relevant academic departments and technical experts.

## 11. Transparency, Recognition, and Donor Visibility

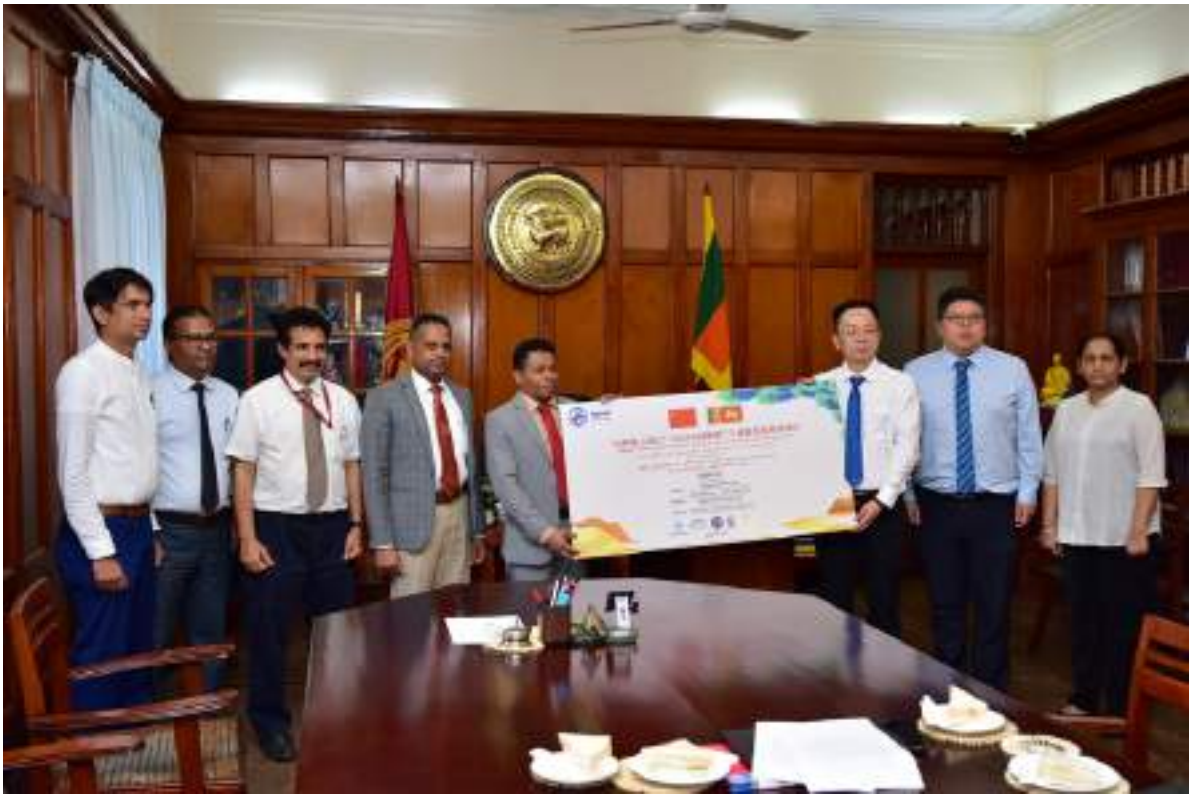
In the interest of transparency and accountability, a **list of donors and the photographs of the donations will be displayed on the official University of Peradeniya website and social media pages**, unless a donor explicitly prefers to remain anonymous. In addition, periodic progress updates and impact summaries will be shared with UNESCO and other stakeholders.

## 12. Conclusion and Appeal for Support

The Ditwah cyclone floods present both a profound challenge and an opportunity to rebuild the University of Peradeniya as a **safer, more resilient, and disaster-ready educational institution**. Support from funding bodies/donors will enable the university to restore critical infrastructure, safeguard its academic mission, and demonstrate the transformative role of science and education in times of crisis.

The University of Peradeniya respectfully seeks your partnership and financial support to realize this restoration and resilience-building initiative for the benefit of present and future generations.

**Total cost for each sub-project is provided in the following pages.**



On February 24, 2025, the handover ceremony for the Yunnan "Hand in Hand" Program – Cleaning Water Service Station Donation Project was held at the University of Peradeniya (UoP).

## E1. Core University ICT Backbone (IT Centre) & Server Restoration

· **Type**: Electronic items / ICT

· **Scope**:
i. IT Centre (ITC): 3 high-performance servers;
1 high-performance workstation; 30 lab/office workstations; 10 power backup units; core switches/routers; dedicated
air-conditioning for server rooms. (Specifications attached)
ii. Central high-end workstations: 6 graphics workstations (from General Stores, for advanced graphic/editing work).
(Specifications attached)

· **Use**: Restores software, MIS and website development and teaching capability, Restore IP phones and other core digital services.

**Total Cost: Rs. 102.84 Million**

## E2. Management Faculty Digital Learning & Computer Lab Recovery

· **Type**: Electronic items / ICT

· **Scope**: (Specifications attached)
i. 240 desktops; 10 laptops; 7 inkjet printers; 3 photocopiers;
2 duplicating machines; 2 paper shredders.
ii. 1 freezer/refrigerator; 5 outdoor AC units; 6 portable speaker units.
iii. 2 server computers; 2 video-editing computers; 8 network switches; 3 online UPS units.
iv. 10 smart panels; 7 multimedia projectors.

• **Use:** Fully restores teaching, assessment and administration in the Management Faculty (which is critically affected). Without the two computer labs he teaching cannot continue.

**Total Cost: Rs. 127 Million**

## E3. Essential Office ICT & Administrative Equipment Recovery

·**Type:** Electronic items

·**Scope:** (Specifications attached)

i. 70 desktops; 7 laptops; 6 high-end graphic editing computers, and 1 high-end graphic editing laptop
ii. 21 inkjet printers;
iii. 16 photocopiers;
iv. 3 duplicating machines
v. 5 paper shredders
vi. 10 refrigerators
vii. 40 UPS (650kv)
viii. 10 AC units
ix. 8 portable speakers

·**Use**: Restores basic ICT and office functionality in the Faculties of Veterinary Medicine & Animal Science and Agriculture, stores, works division, Sarasavi Medura hostel and key support units. Restores and upgrades AV capability in key lecture halls and seminar rooms. Supports continuity of undergraduate teaching, distance learning, external degree programmes, restore functionality of works and maintenance division, welfare and accommodation.

**Total Cost: Rs. 38.61M**

## E4. Resilient Communications Kit (Satellite Phones & Radios)

·**Type:** Electronic items / resilience

·**Scope:** As communication failure in emergency situation has become a common phenomenon

i.2–3 satellite phones (for VC/DVC, Security/CSO, Disaster Committee).
ii.A walkie-talkie system with 40 handsets
·Use: Maintains communication during future power and telecom failures.

**Note:** Across all electronic projects combined, current estimates indicate at least 309 desktops, 17 laptops, 28 inkjet printers, 16 photocopiers, 5 duplicators, 5 shredders, 16 freezers/refrigerators, 44 UPS units, 9 outdoor AC units and 8 portable speakers lost or damaged, plus specialised servers, smart panels, network gear and high-performance workstations.

**Total Cost:**

## L1. Veterinary Teaching & Research Laboratory Recovery (Farm Animal & Necropsy Units)

·**Type:** Laboratory equipment

·**Scope:** Replacement of damaged equipment in neonatal care, theatres and necropsy facilities (monitors, anaesthesia machines, surgical instruments, fridges/freezers, biosafety cabinets, pumps, sterilisation units, etc.).
(detailed Specifications attached)

·**Use:** Maintains veterinary clinical training and essential animal health services.

**Total Cost: Rs. 50 Million**

## L2. CAADDR (Aquatic Animal Disease) Core Laboratory Rehabilitation

·**Type:** Laboratory equipment

·**Scope:** Biosafety cabinets, PCR machines, incubators, refrigerators/freezers, autoclaves, microscopes, air-conditioning units, water purification systems and generator sets. (Detailed Specifications attached)

·**Use:** Restores national-level diagnostic and research capacity in aquatic animal health.

**Total Cost: Rs. 50 Million**

### L3. Animal Science Laboratory & Farm Support Equipment Recovery

·**Type:** Laboratory and farm equipment

·**Scope:** Laboratory instruments, feed processing and mixing equipment, pumps, environmental control units and utility items lost in the flood. (Detailed Specifications attached)

·**Use:** Supports teaching and research in animal production and nutrition.

**Total Cost: Rs. 100 Million**

### L4. Agriculture & Soil Science Laboratory and Store Refitting

·**Type:** Laboratory equipment & storage

·**Scope:** Replacement of damaged laboratory equipment, soil testing instruments, storage racks, sample cabinets and safety cabinets; basic refitting of relocated stores. (Detailed Specifications attached)

·**Use:** Supports undergraduate and postgraduate training in agriculture and soil science.

**Total Cost:**

## Project 3: Student Welfare, Learning Support & Accommodation Projects

### S1. Student Emergency Relief & Learning Support Fund (this is ongoing at faculty level)

·**Type:** Services / small equipment grants

·**Scope:** Direct grants or vouchers to affected students at hostels, boarding places or homes for laptops, textbooks, clothing and basic essentials.

·**Use:** Helps students resume studies despite personal and family losses.

**Total Cost:**

### S2. Sarasavi Medura Hostel Recovery & Furnishing Project

·**Type:** Furniture & small equipment (for 144 students)

·**Scope:** Beds, mattresses, cupboards, tables, chairs, fans, water heaters, basic electrical repairs and sanitation upgrades in severely affected hostels.

·**Use:** Restores safe, dignified accommodation for students.

**Total Cost: Rs. 6 Million**

### S3. Student Counselling & Psychosocial Support Programme

·**Type:** Service / programme funding

·**Scope:**
i. Expertise for training counsellors and peer supporters, group counselling programmes and awareness activities.
ii. Funds for hiring 3 professional counselors

·**Use:** Addresses trauma, grief and stress among students and staff.

**Total Cost:**

### S4. Sports & Student Life Facility Recovery (Gym & Facilities)

·**Type:** Equipment & minor works

·**Scope:**
i. Replacement and treatment of gym flooring,
ii. Sports equipment, PA systems, lighting and basic repairs to indoor facilities. (Detailed Specifications attached)

·**Use:** Supports physical and mental wellbeing and student life after the disaster.

**Total Cost: Rs. 57.7 Million**

## Project 4: Professional Services & Technical Support Projects

### P1. Comprehensive Geotechnical & Hydrological Study of Ma Oya and Mahaweli Banks

·**Type:** Consultancy / services

·**Scope:** Detailed investigations, geotechnical drilling, hydrological and hydraulic modelling, and design options for long-term riverbank protection and slope stability.

·**Use:** Provides the technical basis for safe, resilient capital works.

**Total Cost:**

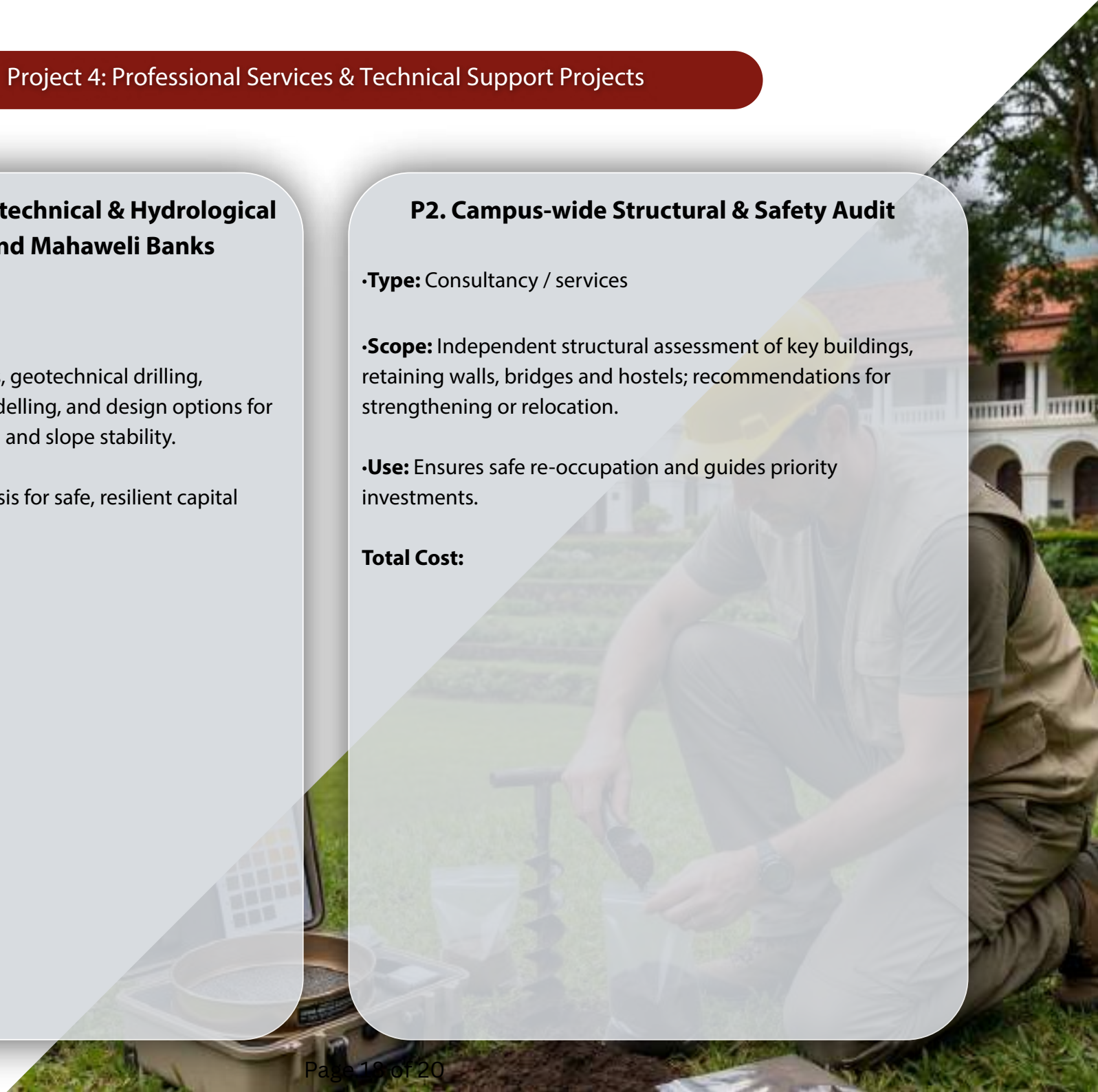
### P2. Campus-wide Structural & Safety Audit

·**Type:** Consultancy / services

·**Scope:** Independent structural assessment of key buildings, retaining walls, bridges and hostels; recommendations for strengthening or relocation.

·**Use:** Ensures safe re-occupation and guides priority investments.

**Total Cost:**



## C1. Ma-Oya Riverbank Protection & Playground Safeguarding Project

•**Type:** Capital work / construction

•**Scope:** Designing and construction of riverbank protection (gabions, riprap, reinforced walls, etc) along the Ma Oya adjacent to the
i. Main playground (Project C1-A)
ii. Arts 7-storey building. (Project C1-B)

•**Use:** Prevents further erosion and protects high-value buildings and key sports complex.

**Total Cost:**

## C2. Mahaweli Riverbank & Slope Stabilisation (A policy decision required)

•**Type:** Capital work / construction

•**Scope:** Slope stabilisation and retaining structures at
i. Sarasavi Medura, (Project C2-A)
ii. Gymnasium, (Project C2-B)
iii. Animal Science, (Project C2-C)
iv. Soil Science stores, (Project C2-D)
v. Works Division (Project C2-E)
vi. Hilda Obesekara (Project C2-F)
vii. Management Faculty (Project C2-G)
viii. Veterinary faculty (Project C2-H)
ix. CDCE, CADAR (Project C2-I)
x. Agriculture Engineering (Project C2-J)

•**Use:** Reduces further erosion risk to major facilities and accommodations.

**Total Cost:**

## Project 5: Capital Work & Construction Projects (Resilient Infrastructure)

### C3. Rajawatte Redevelopment for Floodplain Relocation

•**Type:** Major capital project

•**Scope:** Redevelop Rajawatte staff housing into modern apartment blocks and re-purpose freed land to relocate selected academic/administrative buildings (faculties, works division, further accommodation, general and specialized stores etc.) and stores from the Mahaweli floodplain.
i. Surveying and mapping
ii. Architectural designs
iii. Preparing BOQs

•**Use:** Provides a long-term strategic shift away from high-risk floodplain sites.

**Total Cost:**

### C4. Campus Drainage & Landslide Mitigation Improvement Project

•**Type:** Capital work

•**Scope:** Upgrading internal drains, culverts, water diversion structures and surface drainage; targeted interventions to reduce landslide risk in known hotspots.
i.Mapping potential landslide areas
ii.Desiging solutions (implementation plans)
iii.Funds for implementation

•**Use:** Reduces campus vulnerability to future intense rainfall events.

**Total Cost:**

### C5. Swimming Pool & Sports Complex Structural Rehabilitation

•**Type:** Capital work + equipment

•**Scope:** Reconstruction of failed retaining walls, replacement of pumps and electrical systems, drainage improvements and safety upgrades around the pool and adjacent areas.
i.Designing
ii.Preparation of BoQs
iii.Funds/equipment donations

•**Use:** Ensures continued safe use of the swimming pool and neighboring sports facilities.

**Total Cost:**