

IRDR Scientific Projects

Concept Document

1. Introduction and Purpose

The Integrated Research on Disaster Risk (IRDR) is an international scientific programme cosponsored by the International Science Council (ISC) and the United Nations Office for Disaster Risk Reduction (UNDRR). Its mission is to mobilise science to reduce all types of disaster risk, building resilience by integrating risk science with sustainable development.

To achieve its scientific objectives and implement the IRDR action plans, IRDR engages with the global research community through various collaborative formats. The foundation of the scientific agenda is the "Framework for Global Science in Support of Risk-informed Sustainable Development and Planetary Health" (hereinafter the Framework). The research activities are driven by IRDR priorities proposed in this Framework, which serve as the thematic pillars in IRDR Phase II.

This document outlines the three categories of IRDR Scientific Projects: IRDR Pilot Studies, IRDR Associated Projects, and IRDR Flagship Projects. Each category is designed to facilitate different levels of engagement, funding, oversight, and collaboration, ensuring flexibility while maintaining scientific rigour and strategic alignment with IRDR's mission. All projects should be aligned with the Framework to ensure coherence, foster collaboration, and maximise the collective impact of the IRDR community.

2. Categories of IRDR Scientific Projects

2.1. IRDR Pilot Study

2.1.1. Definition and Objective

IRDR Pilot Studies are small-scale, time-bound research projects whose primary objective is to activate the IRDR community, and encourage engagement from International Centres of Excellence (ICoEs) and young scientists. Pilot projects are considered to serve as a catalyst for generating cutting-edge research outputs that align with the Framework.

2.1.2. Funding and Duration

Funding Source: Seed funding provided by the Chinese Association of Science and Technology (CAST, the IRDR donor organization) through the IRDR International Programme Office (IPO).

IRDR Contribution: Partnership with members of IRDR community, and promotion via IRDR

communication channels.

Project Duration: Typically 12 to 18 months.

2.1.3. Review Process and Logistics

1. Open Call for Proposals: Announced by the IRDR IPO, based on IRDR priority areas.
2. Review Process : Conducted by the IRDR IPO to ensure compliance with submission requirements.
3. Scientific Evaluation: An Evaluation Committee (comprising the IPO representative, SC members, Fellows, and other representatives of IRDR community) assesses proposals based on academic innovation, impact, feasibility, and research foundation. The evaluation criteria and process are attached as Annex 1.
4. Final Approval: The IRDR Scientific Committee (SC) reviews the evaluation results and approves the final list of Pilot Studies.
5. Contracting: A formal funding contract is signed between the leading institute of the Pilot Study and the IRDR IPO and its host institute.

2.1.4. Expected Outputs and Obligations:

- Open-access peer-reviewed publications of research results and data, highlighting DRR solutions.
- Development of IRDR publications¹
- Organisation of at least one webinar or workshop for the ICoE network and IRDR communities.

2.1.5. Ownership of Outcomes

Due to the use of the IRDR brand and IRDR funding, IRDR holds shared ownership of the project outcomes. While the executive team retains natural ownership of their intellectual contributions and data, IRDR has the right to disseminate findings, report on impacts, and utilise results for strategic advocacy.

2.2. IRDR Associated Project

2.2.1. Definition and Objective

IRDR Associated Projects are research initiatives contributed by IRDR ICoEs and NCs that are funded by external sources. The objective is to increase the impacts of IRDR by formally recognising excellent, self-sustaining research that aligns with the IRDR mission, without direct financial commitment from the IPO. IRDR provides scientific advisory support or in-

¹ Description of IRDR Publication: <https://www.irdrinternational.org/upload/20251222/344891cbd23fd4.pdf>

kind support. No more than 5 projects will be endorsed per year.

2.2.2. Funding and Contributions

Funding Source: External agencies.

IRDR Contribution: Scientific endorsement, advisory support, logo usage, partnership with members of IRDR community, and promotion via IRDR communication channels.

2.2.3. Review Process and Logistics

1. Application: Submission of project details to the IRDR IPO by the project leaders, with the agreement from the original funding agencies confirming their consent to the application.
2. Evaluation and Scoring: Applications are evaluated by a designated committee in terms of the project's relation to the mission, vision and action plan of the IRDR, as well as importance of the project for increasing IRDR visibility. A scoring and ranking methodology is applied, as detailed in Annex 2.
3. SC Review and Decision: The IRDR Scientific Committee (SC) reviews the evaluation results and makes the final decision on approvals.
4. Endorsement: If approved, the project receives the IRDR Associated Project status and is listed on the IRDR website and reports.
5. Reporting: Once approved, the project is required to report the performance to IRDR IPO annually and be reviewed by the IRDR SC.
6. Removal: The project may be removed from the list of IRDR Associated Projects if it is rated unsatisfactory based on the SC review. The project leaders will be notified of this decision, and the project's association with IRDR will cease.

2.2.4. Ownership of Outcomes

The executive team (project leaders and their institutions) retains primary ownership of the project outcomes. IRDR is granted the non-exclusive right to use project summaries and data for reporting and promotional purposes to increase the impact of IRDR.

2.3. IRDR Flagship Project

2.3.1. Definition and Objective

IRDR Flagship Projects are large-scale, high-impact initiatives initiated explicitly in the name of IRDR or jointly with partner organisations. They may be proposed by the IRDR Scientific Committee or IRDR Fellows, requested by IRDR co-sponsors (ISC, UNDRR) or donor (CAST), or developed as a collaboration with other leading research entities. These projects are designed to generate long-lasting, impactful, transformative outcomes that significantly enhance Disaster Risk Reduction (DRR) sciences and contribute directly to international frameworks like the Sendai Framework.

2.3.2. Funding and Support

Funding Source: Including but not limited to external agencies, dedicated funds from co-sponsors, specific donor contributions, large-scale consolidated grants secured by the IPO/SC in the name of IRDR, or joint funding from partners in a co-initiated project.

Implementation: Managed by a designated executive team.

2.3.3. Review Process and Logistics

1. Initiation: Proposed by the IRDR Scientific Committee, Co-sponsors, Donor, Fellows, jointly by IRDR and partners, or by other applicants interested in integrated research on disaster risks.

2. Concept Development: The executive team develops a detailed Science and Implementation Plan.

3. SC Vote: The IRDR SC formally votes to approve the project as a "Flagship." The approval criteria and process are attached as Annex 3.

4. Reporting: Once approved, the project is required to report on the progress to the IRDR IPO annually. The SC will assess a progress of the projects based on the criteria related to scientific excellency, outcome, and impact.

2.3.4. Ownership of Outcomes

Ownership structures are negotiated on a case-by-case basis and formalised in a collaboration or consortium agreement at the project's inception.

For IRDR-initiated flagship projects: Due to the use of the IRDR brand and direct funding/initiation by IRDR bodies, IRDR holds shared ownership of the project outcomes. While the executive team retains natural ownership of their intellectual contributions and data, IRDR retains the right to disseminate findings, report on impacts, and utilise results for strategic advocacy.

For joint-initiated flagship projects: Ownership is shared between IRDR and its partner organisation(s). The partnership agreement will specify the respective rights to intellectual property, data, and communication of results, typically reflecting the level of investment and contribution from each party.

3. Cross-Cutting Principles

Alignment with IRDR missions: All projects must be aligned to IRDR missions, ensuring a cohesive and strategically focused research portfolio.

Scientific Committee Authority: For Pilot Studies, Associated and Flagship projects, the IRDR SC retains the right to review and vote on all applications to ensure consistency with the



IRDR missions and to protect the integrity of the IRDR brand.

Summary of IRDR Scientific Project Categories (pilot Studies, Associated and Flagship projects) can be found in Annex 4.

Annex 1

Evaluation Criteria and Process for IRDR Pilot Study

The IRDR Pilot Study (PS) is a research project focusing on the research priorities proposed in the IRDR Action Plan and supported by CAST through the IRDR IPO. Upon approval, a formal contract will be established between the host institute of IRDR IPO and the host institute of the successful applicant. Consequently, the evaluation process and criteria are designed to reflect the requirements of the IRDR scientific merits and the administrative rules of the host institute of IRDR IPO.

Evaluation Process

I. Establishment of Evaluation Committee

An evaluation committee is established by the IRDR IPO for this purpose. The committee will comprise four experts from the IRDR Scientific Committee (SC) membership, IRDR Fellowship, partners with expertise directly relevant to the themes of the research proposals, and one IPO staff member as an ex-officio. Separate committees may be established to evaluate applicants from distinct thematic areas.

II. Scoring Procedure

The members of the evaluation committee will evaluate each application using an IRDR standardized evaluation form. They are required to provide a score for each criterion, as well as an overall final, weighted score for the application. The IRDR IPO will compile all the scores and calculate the average final score for each application. The methodology is stated in the section “Calculation of Scores”.

III. Decision-Making and Announcement

The Evaluation Committee’s recommendation on the selected projects will be considered by the IRDR SC for the final decision-making. An official announcement of the results will be disseminated by the IRDR IPO via email to all applicants and published on the IRDR website to ensure transparency.

Evaluation Criteria

Criterion 1: Capability of Principal Investigator (PI) and the research team

- **Weight: 20%**
- **Score: 1 (Poor) - 5 (Excellent)**
- **Guiding Questions:**

- Does the PI and team have a proven track record and demonstrated expertise in the proposed research area?
- Is there evidence of the team's ability to successfully manage projects and deliver on proposed objectives?
- Does the team show a capacity for building collaborative networks and securing future research funding?

Criterion 2: Scientific Quality, Novelty, and Innovation

- **Weight: 30%**
- **Score: 1 (Poor) - 5 (Excellent)**
- **Guiding Questions:**
 - Does the proposal address a clearly defined and important knowledge gap in disaster risk reduction?
 - Is the research question original, and does the approach demonstrate significant innovation over existing methods?
 - Does the proposal employ novel methodologies, technologies, especially integrated approaches?

Criterion 3: Clarity of Objectives, Deliverables, and Budget

- **Weight: 30%**
- **Score: 1 (Unclear / Inadequate) - 5 (Very Clear / Excellent)**
- **Guiding Questions:**
 - Are the project's objectives and final deliverables specific, measurable, achievable, and relevant?
 - Is the budget justification clear, appropriate, and directly aligned with the proposed activities?

Criterion 4: Feasibility and Risk Management

- **Weight: 10%**
- **Score: 1 (High Risk / Not Feasible) - 5 (Low Risk / Highly Feasible)**
- **Guiding Questions:**
 - Is the research design and methodology realistic within the proposed timeline and budget?
 - Has the team identified potential scientific, logistical, or ethical risks, and proposed adequate mitigation strategies?

Criterion 5: Potential for International Application and Upscaling

- **Weight: 10%**
- **Score: 1 (Limited) - 5 (High)**

- **Guiding Questions:**
 - Are the expected outcomes designed for transferability to diverse geographic, cultural, or socio-economic contexts?
 - Does the proposal consider pathways for the adoption of its results by policymakers or practitioners in different countries?

Calculation of Scores

I. Individual Weighted Score (S_n)

For each applicant, the score from a single committee member (n) is calculated as follows:

$$S_n = S(\text{criterion 1}) * 20\% + S(\text{criterion 2}) * 30\% + S(\text{criterion 3}) * 30\% + S(\text{criterion 4}) * 10\% + S(\text{criterion 5}) * 10\%$$

II. Final score for each applicant

The overall score for each applicant is the arithmetic mean of the Individual Weighted Scores from all committee members:

$$S_f = \text{Average}(S_1, S_2, S_3, S_4, S_5)$$

Annex 2

Approval Criteria and Process for IRDR Associated Project

IRDR Associated Projects are research initiatives contributed by members of the IRDR community that are funded by external sources. The objective is to increase the impacts of IRDR by formally recognising excellent, self-sustaining research that aligns with the IRDR mission, without direct financial commitment from the IRDR Programme. IRDR provides scientific advisory support or in-kind support.

Approval Process

I. Establishment of Evaluation Committee

The IPO establishes an Evaluation Committee for this purpose. The committee will comprise five experts from the IRDR SC members, IRDR Fellows, and partners with expertise directly relevant to the themes of the research proposals.

II. Evaluation Procedure

The Evaluation Committee members review the application against the criteria described in the section “Approval Criteria”. They are required to provide a ranking of the top 5 among all the applications in one batch. The IRDR IPO will compile all the evaluation results and calculate a score for each application. The methodology is stated in the section “Calculation of Scores”.

III. Decision-Making and Announcement

The SC will review the final result provided by IPO and make the final decisions. An official announcement of the results will be disseminated by the IRDR IPO via email to all applicants and published on the IRDR website to ensure transparency.

Application Form for IRDR Associated Projects

Section A: Basic Information

Title of Project	
Project Leader	Name, Affiliation, Email
IRDR Affiliation	☐ ICoE(specify):__ ☐ NC (specify):__
Partners (if any)	
Project Start Date / Duration	
Total Budget (USD/EUR)	
7. Funding Source(s), including the formal agreement from the original funding agencies, confirming their consent to the application	

Section B: Project Summary

Briefly describe the project's objectives, key research questions, methodology, milestones, and expected outcomes. No more than 400 words.

Section C: Contribution to IRDR and Project Feasibility

Please answer the following questions. Each response is limited to 150–200 words.

Global Research Priority Addressed	☐ Priority 1: Understand risk creation and perpetuation in the contemporary risk landscape: systemic, cascading, and complex risk ☐ Priority 2: Address inequalities, injustices, marginalisation and vulnerabilities ☐ Priority 3: Enable transformative governance and action to reduce risk ☐ Priority 4: Understand the implications of new thinking on hazards ☐ Priority 5: Harness technologies, innovations, data
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	and knowledge for risk reduction ☐ Priority 6: Support regional and national science and knowledge for policy and action ☐ Priority 7: Support just and equitable transitions, adaptation and risk reduction ☐ Priority 8: Measurement to help drive progress ☐ Priority 9: Foster a transdisciplinary approach and multi-stakeholder collaboration for solutions to risk challenges
IRDR Work Stream Addressed	☐ Risk-informed development ☐ Climate change and public health ☐ DRR financing ☐ DRR education ☐ DRR citizen science
How does this project contribute to the goals of the selected IRDR Work Stream and Priorities?	
What is the potential impact of this project on disaster risk reduction policy or practice? Please list 2–3 key deliverables with target completion dates.	
What specific outputs will this project generate that enhance the visibility of IRDR (e.g., publications, policy briefs, tools, datasets, media engagement, events)?	
What are the main risks or challenges to implementation, and how will they be mitigated?	

Section D: Supporting Document (checklist)

- ☐ Evidence of funding (e.g., grant award letter, budget approval)
- ☐ CV(s) of Project Leader and key team members (no more than 3 pages in total)

Declaration

I confirm that the information provided is accurate and complete. I understand that IRDR Associated Project status may be revoked if annual reports are not submitted or if the project no longer aligns with IRDR goals.

Signature of Project Leader	Date
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Criteria for approval of applications for IRDR Associated Projects

The Evaluation Committee members will select and rank the top 5 applications based on the following criteria. Comments are preferred for final decision-making.

1. Scientific Excellence and Relevance

- The project addresses a significant research question or gap in the field of disaster risk reduction.
- The methodology is sound, innovative, and appropriate for achieving the project's objectives.
- The project demonstrates potential to contribute new knowledge, data, or tools to the DRR community.

2. Alignment with IRDR Mission and Work Streams

- The project's objectives are clearly aligned with the IRDR mission and the specific themes of an established IRDR Work Stream.

3. IRDR Visibility and Community Engagement

- The project demonstrates a commitment to acknowledging IRDR affiliation in publications and outreach.
- The project team shows willingness to engage with the broader IRDR community (e.g., presenting at IRDR conferences, contributing to newsletters).

Calculation of Scores

The IPO collects all rankings from the Evaluation Committee members and calculates a weighted score for each application based on the following points system:

- **Rank #1:** 5 points
- **Rank #2:** 4 points
- **Rank #3:** 3 points
- **Rank #4:** 2 points
- **Rank #5:** 1 point

Applications not ranked by an Evaluation Committee member receive 0 points from that member.

The IPO totals the points from all Evaluation Committee members to generate a final score for each applicant. The IPO will provide a ranking list of all applications with scores to the SC for final decision.

Annex 3

Approval Criteria and Process for IRDR Flagship Project

IRDR Flagship Projects are large-scale, high-impact initiatives initiated explicitly in the name of IRDR or jointly with partner organisations. They may be proposed by the IRDR Scientific Committee, requested by IRDR co-sponsors (ISC, UNDRR) or donor (CAST), or developed as a collaboration with other leading research entities and Fellows. These projects are designed to generate long-lasting impactful, transformative outcomes that significantly enhance disaster risk reduction (DRR) sciences and contribute directly to international frameworks like the Sendai Framework.

Approval Process

I. Concept Endorsement and Plan Development

A concept note for a potential Flagship is presented to the SC for initial feedback and endorsement to proceed with a full plan. A detailed Science and Implementation Plan is developed, including budget, timeline, governance, and partnership agreements.

II. Voting Procedure

SC members review the applications against assessment criteria. A simple majority vote is required for approval. The methodology is stated in the section “Review Criteria and Voting” (see below).

III. Launching and Announcement

Approved projects are formally launched. A public announcement is made, highlighting the Flagship status and partners.

Review Criteria and Voting

The IRDR Scientific Committee (SC) members will vote on the proposals based on the following criteria:

1. Transformative Potential and Impact

- The project addresses a major, globally relevant challenge in disaster risk reduction.
- The project has the potential to generate paradigm-shifting outcomes, significant policy influence, or practical tools that substantially enhance DRR practice.

- The project is expected to significantly elevate the reputation and visibility of IRDR within the international science and policy community.

2. Strategic Alignment and Added Value

- The project directly contributes to the core mission and priorities of IRDR and its co-sponsors.
- The project complements and advances the goals of the relevant IRDR Work Streams and Global Research Priorities.
- The project fills a critical gap or addresses a priority area that cannot be achieved through smaller-scale initiatives.

3. Scientific Rigor and Feasibility

- The Science and Implementation Plans present a clear, coherent, and scientifically robust methodology.
- The project timeline, budget, and governance structure (e.g., Steering Committee) are well-defined and realistic.
- Risks are identified, and mitigation strategies are in place.

4. Partnership and Resource Mobilization

- A clear strategy for resource mobilization is in place, with secured funding or a credible funding pathway.
- If joint, the roles, contributions, and commitment of all partners are clearly defined.

Voting rights are extended to all Scientific Committee (SC) members, with the exception of those who have a conflict of interest due to their direct involvement in initiating the proposed project.

Each eligible SC member holds one vote. A proposal is considered approved if it receives a simple majority (more than half) of the votes cast by the eligible members.

Upon approval, the project is officially launched as an "IRDR Flagship Project."

Annex 4

Summary of IRDR Scientific Project Categories

Component	IRDR Pilot Study	IRDR Associated Project	IRDR Flagship Project
Primary Purpose	Small-scale, time-bound projects to activate the IRDR community, support innovation, and engage ICoEs and young scientists	Externally funded projects formally recognized by IRDR to enhance visibility and scientific impact	Large-scale, high-impact transformative initiatives led by or jointly with IRDR and strategic partners
Scale / Scope	Small	Medium	Large / Strategic
Typical Duration	12–18 months	Variable (based on external funding cycle)	Multi-year
Funding Source	Seed funding from CAST via IRDR IPO	External funding agencies / partner institutions	External grants, co-sponsor funds, donor contributions, joint partner financing
IRDR Contribution	Seed funding, scientific partnership, communications support	Scientific endorsement, advisory and in-kind support, branding, communications	Strategic leadership, direct co-initiation, governance oversight, branding, resource mobilization
Financial Commitment by IRDR	Yes	No direct funding	May include direct and/or co-funded support
Approval Mechanism	Open call → committee evaluation → SC approval	Application → evaluation committee ranking → SC approval	Concept endorsement → Science & Implementation Plan → SC vote
Evaluation Method	Weighted scoring criteria	Ranking and scoring of top applications	Strategic review and simple majority vote
Governance Oversight	IRDR IPO + Scientific Committee	Scientific Committee annual review	Scientific Committee + Executive / Steering Team
Reporting Requirement	Final outputs and dissemination activities	Annual reporting mandatory	Annual progress reporting mandatory

<i>Maximum Number per Year</i>	Based on available funding	Maximum 5 per year	Not fixed; based on strategic priorities
<i>Expected Outputs</i>	Publications, workshops, seminars, data outputs	Publications, policy briefs, datasets, tools, visibility outputs	Major reports, international policy influence, tools, frameworks, scientific leadership outputs
<i>Ownership of Outputs</i>	Shared ownership with IRDR	Primary ownership retained by project leaders; IRDR non-exclusive use rights	Shared / negotiated ownership through formal agreement
<i>Brand Use / Recognition</i>	IRDR-funded project	IRDR-endorsed project	IRDR flagship initiative
<i>Strategic Importance</i>	Innovation and community activation	Visibility and network strengthening	Global leadership and transformative impact