GLOBAL RESEARCH COUNCIL

2022 Regional Meeting Reports

ANII Agencia Nacional de Investigación e Innovación

أكاديمية البحث العلمي والتكنولوجي
Academy of Scientific Research & Technology

Ministry of Higher Education, Research & Innovation

สำนักงานคณะกรรมการวิจัยแห่งชาติ
National Research Council of Thailand

JST Japan Science and Technology Agency

JSPS

NSERC CRSNG

NRF National Research Foundation

SCIENCE EUROPE

Thailand Science Research and Innovation

UKRI UK Research and Innovation

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Introduction

The Global Research Council is a virtual organisation, comprised of the heads of science and engineering funding agencies from around the world. Since 2012 the Global Research Council (GRC) has enabled heads of science and engineering funding agencies from around the world to come together to discuss common issues and promote the sharing of data and best practice, with the aim of promoting high-quality international research collaboration.

Over the last 11 years, participation in the GRC has increased, with greater representation from across its Regions, meaning that the GRC has become a truly global body. As the GRC enters its next decade, its participants recognise that the drivers which brought its founders together to establish the organisation remain as strong as ever. As we move into the next 10 years of the GRC's existence, it is also important to reflect and ensure that the GRC continues to support its participant's interests and needs as a global forum of science funding agencies.

Each year, the GRC elects one or two topics to be discussed amongst its members, in 2022, the topics were Recognising and Rewarding Researchers, and Climate Change Research Funding. A concept paper on the topics are drafted by specialists from the next Annual Meeting co-host organisations, and are reviewed and commented on by the different GRC bodies – the Executive Support Group, International Steering Committee, and Working Groups. After that, GRC participant organisations discuss and bring their regional perspectives to the topics at the GRC Regional Meetings, which take place in the five GRC regions: Asia-Pacific, Americas, Europe, Middle East and North Africa, and Sub-Saharan Africa. In 2022, the Regional Meetings took place from October to December in Montevideo (Uruguay), Bangkok (Thailand), Cape Town (South Africa), Harwell (UK), and Muscat (Oman).

Regional meeting co-hosts synthesized the discussions in very high quality reports that were used as a base for the development the GRC Statement of Principles on both topics, where regional aspects were incorporated into the documents.

After the Regional Meetings, the documents are then reviewed by the GRC Governing Board, and by all GRC participants of the 2023 Annual Meeting. Final ratified versions of these documents are published as GRC Statement of Principles, and made available in the GRC website in at least 4 different languages.

This booklet is comprised of the 2022 Regional Meeting Reports produced by each regional meeting co-hosts.

GLOBAL RESEARCH COUNCIL

Americas Regional Meeting

16-18 November 2022
Montevideo, Uruguay

Co-hosts: ANII AGENCIA NACIONAL DE INVESTIGACIÓN E INNOVACIÓN, NSERC CRSNG

Report on Americas Regional Meeting 2022

TOWARDS A CLIMATE CHANGE INITIATIVE: SUMMARY NOTES & REFLECTIONS ON THE THEMATIC AND THE DISCUSSION PAPER

CONTEXT

From November 16-18, 2022, La Agencia Nacional de Investigación e Innovación (ANII) hosted, and the Natural Sciences and Engineering Research Council of Canada (NSERC) cohosted, the Global Research Council (GRC) Americas' Regional Meeting in Montevideo, Uruguay. 12 countries participated, with the Belmont Forum, the Inter-American Institute for Global Change, Science, Technology, Policy (STeP) fellows, and Canada's IDRC.

Engagement in the GRC is one of the ways that enables an inclusive global research environment, through which researchers can collaborate with their counterparts internationally to advance knowledge and to address the grand challenges of our times.

In an effort to represent the many voices, perspectives, and nuances at the regional meeting, the compilers of these notes recognize that there is overlap and some repetition between and within sections.

FORMAT FOR THE CLIMATE CHANGE SESSION

The session was organized into three parts. The first was a presentation by Prof. Jean Ometto, Senior Researcher at the Brazilian Institute of Space Research and Coordinator of the Earth System Science Center, and a co-author of the Discussion Paper.

Two *discussants* provided perspectives on Prof. Ometto's presentation, both from an international perspective and a Uruguayan perspective. The panelists were:

- Christina Peters, Director Latin America, DFG (German Research Foundation)
- Lorena Marquez, National Climate Change Directorate, Uruguay

The third part was a facilitated plenary discussion which included further reflections from Prof. Jean Ometto, and the discussants.

CORE MESSAGES FROM THE AMERICAS

- The unique features of the GRC promise potential for fostering collaboration among funders. We are a crowd of funders close to national research communities and political decision makers, with access to crucial information, knowledge generated locally and made available globally.

- The GRC is well positioned to contribute as a global organization of research funding agencies with a strategic vision of fostering worldwide **multilateral cooperation** to overcome the global and interconnected challenges of our time.

- The GRC has three pillars of strength:

    - ***Reach*:** within a complex research ecosystem the GRC is global with over 100 participating organizations.
    - ***Autonomy*:** most participating organization have a degree of independence not enjoyed by other participants in the ecosystem.
    - ***Funding possibilities*:** participating organizations could decide to collectively orient funding disbursements around research and policy priorities, thereby enabling the GRC to move beyond sharing best practices and coalescing around statements of principles.

- The GRC is positioned to serve as:

    - ***A platform for sharing information***, receiving demands for knowledge, identifying gaps, making visible the diversity of efforts worldwide, providing an inventory of lessons-learned, and facilitating translation of knowledge into action by policy makers.
    - ***A broker to coordinate multinational efforts and thematics*** to minimize duplication and optimize efforts within the international ecosystem.

PRESENTATION BY PROF. JEAN OMETTO

Prof. Moretto's presentation was rich in detail with engaging graphics. These notes do not purport to capture the scope of the presentation but rather the *key messages* as they were understood by the note-takers.

- Action is **urgently** needed. If nothing comes out of the current COP, we can expect a 2.5 – 3.0 degrees celsius warming by the end of the century.

- Transformation to flatten the curve of increasing emissions is imperative. We require a dialogue between science and policy. There is interdependence between scientific effort, evidence-based approaches, mitigation and policy. Science provides data that informs indicators of Sustainable Development (patterns of consumption to biodiversity preservation).

- Even with our best efforts, the path of climate change will continue before finding an equilibrium. We need strategies for adaptation and capacity to cope with acceleration and loss. Climate change must be managed towards a sustainable system.

- Information and strategies must get to local decision makers. For example:

    - Strategies for mitigation of the energy matrix
    - Biodiversity loss and adaptation
    - Human health and the level of vulnerability of human societies.
    - Scenario and economic modelling

- Science funding, technology transfer, and sharing of data and open science are complex science policy issues in the international cooperation space that require prioritization. In addition, we have a collective responsibility to foster a "culture that integrates the responsible and ethical conduct of research into all aspects of the research ecosystem".

- We cannot dissociate climate change from social inclusiveness and environment impact. An interdisciplinary approach for climate modelling and solutions are critical.

- Climate resilience pathways, scenarios and economic modelling are required to build resiliency into social and ecological systems. The private sector has important contributions to make. The information needs to flow to local decision makers who are at the interface between impact and mitigation.

- There are climate zones, outcomes of models, that define the level of the climate hazard, but we need to understand how vulnerable communities are to specific hazards. Defining indicators of vulnerability requires much more effort.

- The risk of impact on food yield on a hotter planet is high. 50% of all habitable land on the planet is used for agriculture. This is a huge universe for scientific contribution.

DISCUSSANT PERSPECTIVES

Bottom up Funding

- Bottom-up funding will make important contributions. For example, in Latin America there are several collaborative projects funded or co-funded by DFG on biodiversity in the Amazon states, and there is a research unit in Ecuador studying biogeochemical cycles in tropical forests. Another example of fundamental research and targeted knowledge discovery is the DFG project with NSERC on sustainable processes in chemistry that may lead to discoveries with significant impact.

Multi Stakeholder Governance

- Climate change constitutes a challenge in all dimensions: economic, social, environmental, and geopolitical. A governance system that brings all institutions and stakeholders together is imperative both at the local, regional, national and international levels. This includes spaces for permanent dialogue and consultation such as an advisory committee comprised of researchers, academia, and knowledge centers.

Public Policy and the Challenge of Integration

- When public policy is implemented, several problems arise, given the diverse sectors and issues involved (agriculture, social, poverty, energy, risk management education). Each sector has its own public agenda and each agenda has its own knowledge creation agenda. The challenge is bringing sectors together into an integrated whole.

- To be impactful, scientific advances and knowledge creation must be translated into policy for decision makers and rationale for action by the population. The Intergovernmental Panel on Climate Change (IPCC) does it well. At the local and national levels, translation and science communication is sometimes lacking and weak.

Interdisciplinarity and Multisectoral

- Similarly, collaboration within and across the academic system is challenging, because of specialization that leads to an array of values, assessment and evaluation practices.

- Implementation requires an interdisciplinary, multidisciplinary approach. Researchers specialize in topics but we need an interdisciplinary approach. How do we then do peer review; how do we assess specific and transdisciplinary expertise and offers.

Lack of Records, Data and Information on Quantification of Damages and Losses

- Data is a fundamental tool for decision makers for social cohesion as finite resources are allocated within society. This includes analyses, modelling, and data on risks and losses, as the economy and society restructures for adaptation and mitigation. The contribution of academia is incontrovertible. However, even at the IPCC level, there is no definition of loss, no clear methodology, and information and data is sometimes lacking. These gaps are amplified at the national and local levels.

Transition, Social Cost, Adaptation

- How much will a (fair) transition cost? Who will be the most affected and who will fund it? What is the role of the State? There is opportunity for research agencies and for spaces like GRC to advise the public sector on defining the less expensive and less damaging ways to go through a fair transition, and also on compensation mechanisms.

- Environmental sciences are more advanced than other dimensions of development, such as social vulnerability, ecosystem adaptations, cities adaptation, among others. We need dialogue with policy makers as we assess trade-offs between agricultural concerns and production; climate research; natural resources; urban development. Developing countries are vulnerable, with larger gaps in scientific translation to public policy.

- The ongoing transformation of the energy matrix worldwide is an example of intersectoral articulation from academia into public policy. International cooperation is key. Coastal adaptation in the Uruguayan context is a specific example of a model that works. A technology transfer agreement between the University of Cantabria and experts at the University of the Republic led to the creation of vulnerability maps of the southern coast (Río de la Plata and Southern Atlantic Ocean). Academic and scientific information informs policy on adaptation measures in the region.

PLENARY DISCUSSION – INCLUDING A POTENTIAL ROLE FOR THE GRC – KEY POINTS

Information and Data

- Identification of knowledge and information gaps; data gathering consolidation; and identification of vulnerabilities in the system and areas of resilience require strenthening. For example, climate resilience pathways, climate anomalies map, risks and events, indicators of vulnerability, and cascade risk and adaptations.

- Information and data will facilitate the translation of scientific knowledge into evidence-based policy, which will enable the more efficient allocation and orientation of resources through the construction of indicators, scenario and economic modelling. Baseline mapping will enhance implementation, and improve monitoring, reporting, and verification systems in place to account for progress.

- Local knowledge and traditional knowledge are often intertwined, especially around vulnerabilities and adaption.

Modelling

- Information and data will orient research priorities; solutions for society; climate resilience pathways; and how certain pathways to different equilibrated (favored and unfavored) environments may be interrupted by shocks (pandemics, wars).

- Good monitoring, reporting, and verification systems are required to account for progress and formulate Nationally Determined Contributions. Strategies to attract private investment as the public sector provides the enabling framework and incentives.

- We need integrative methodologies, that brings together societal challenges and impacts and that become sensitive as we shift the data.

Cascade Risk

- An emergent issue is cascade risk that can dialogue with the indicators of the SDGs. They are sectorial, but they merge in defining the risk of impact.

    - When defining risk, there is a lack of data
    - For adaptation, there is a lack of information
    - We lack information on the vulnerabilities of the system
    - The connection to local knowledge; to indigenous knowledge.

Social Dimensions

- Policy gap analysis must include social dimensions and climate justice threats to enable transdisciplinary, multistakeholder, and integrative approaches and methodologies.

- Advice to the public sector decision makers to define efficient and sustainable strategies towards a “fair transition”, and structural compensation mechanisms, is imperative.

Environmental Impact of Research

- Research itself has climate impacts. NSERC is addressing this at the federal level and there are pilots at the provincial level. If research impacts are significant then mitigation plans need to be developed to avoid significant environmental impact.

The Americas Region

- The Americas region is vast and unique with critical resources and ecosystems. The Amazon rainforest alone encompasses eight rapidly developing countries.

- The Americas region is more or less peaceful, we do not have big conflicts, and we have big opportunities. We have Amazonia, Antarctica, and the Arctic; national territories, vast ecosystems and resources, that can add considerably to global research.

- IDRC has a climate change division to support global research. In Latin America there are gaps in research and gaps in policy. Lessons learned in Latin America, in particular around climate justice threats, urbanisation, impact on women and the most marginalised groups (in Brazil for example) are translatable to other regions. Examples include IDRC's work with Sistema B on triple impact, and the innovation hub in Mendoza with participation from researchers, private sector, policy and civil society, with wonderful results from a policy perspective on local impact.

A Role for the Global Research Council

- The GRC is a forum for collaboration and for the sharing of data. The GRC is comprised of national funding agencies; we represent the funding agencies of the world. We have and we can make an impact. The GRC can contribute to the development of integrative methodologies that can be used globally by inviting participating organizations to coalesce and organize. The governing board could ask our Executive Secretary and Secretariat to provide leadership.

- The GRC has a role in contributing to the policy environment to achieve the SDGs *and* to coordinate funders to contribute to the SDGs. If GRC assumes a new role among research funding initiatives, it should be carefully decided in order to avoid duplicating available mechanisms; it is better to strengthen and catalyze existing initiatives.

- The GRC could act as an intermediary by defining research priorities on a global scale on behalf of participating organizations in order to orient national and collective efforts; in other words, compiling the demand for knowledge and translating it to national agencies.

- There are many initiatives that could be mapped and the gaps and opportunities identified thereby orienting the GRC. For example, NSF is leading a pilot global center initiative with five agencies (including NSERC). NSERC will be launching very soon the "2023 International Joint Initiative for Research in Climate Change Adaptation and Mitigation". These calls align directly with how the discussion paper has been framed: they are transdisciplinary, trans-sectorial, include members of underrepresented groups, and require plans for policy implementation and impact.

- The GRC could provide spaces for information sharing: what are the outcomes of these calls and how could they be further optimized?

- The GRC can influence the urgent production of science, integrity of results, practical applications, and strengthening communication with society and decision makers?

- The GRC has experience in this space through the pilot call on SDGs; there are 11 agencies participating. ANID (Chile) is the only representative from the Americas. Agencies from Africa, Asia, Europe are also participating. The call is ongoing and has as its objective translation of existing research into application.

- We have the opportunity to ask the GRC to do things differently, instead of, or in addition to, a statement of

- principles (SoP). We could ask for a call to action, perhaps integrated into a SoP, that would provide a framework. We could set an objective with an aim, a roadmap, that might be regional; perhaps the Americas region could provide leadership.

The Belmont Forum and Regional Convening Organizations

- The Belmont forum has well developed instruments for international collaborations, an established track record, and shares the same constituency as the GRC.

- The Belmont Forum brings the global community together to action through calls. The Inter-American Institute for Global Change (IAI) is a regional organization with convening influence in the Americas. The GRC provides another layer because of its connection to funds. The GRC could seek to leverage the mechanisms of the Belmont forum for multilateral calls, and the strengths of regional organizations.

REWARDS AND RECOGNITION (R&R): SUMMARY NOTES & REFLECTIONS ON THE THEMATIC AND THE DISCUSSION PAPER

FORMAT FOR THE R&R SESSION

The session was organized into three parts. It opened with a video presentation of the R&R Discussion Paper by Robbert Hoogstraat of NWO (the Dutch Research Council), that was similarly presented at the five GRC regional meetings worldwide.

Three panelist presentations examined the discussion paper from different perspectives, followed by an opportunity for participants to sharpen the presentations through questions or comment. The panelists were:

- Shawn McGuirk, NSERC
- Fernando Silveira, Universidad de la República, Uruguay
- Brian Leung, AAAS Fellow and Belmont Forum Secretariat

The third part was a facilitated plenary discussion which concluded with reflections back to plenary by Ana de Castro, NWO, who joined via live video-link from The Hague.

CORE MESSAGE FROM THE AMERICAS

- Since research assessment shapes research cultures, careers and trajectories, the research enterprise should recognize quality research and different ways of doing research, as well as differences in context, culture and language. Funders bear responsibility for the processes and criteria of assessment, rewards and recognition.

- We need a humbler science; a move away from single researchers talking about how great they are to raising everyone around them, and to inviting others to the table.

- How can one decide to fund either the Beatles or Bach? One cannot. They have to be assessed in very different ways.

PANELIST PRESENTATIONS

- **We are not looking to re-define research excellence; we are rather moving towards a more comprehensive understanding of excellence, and balancing the qualitative and the quantitative.** It is not about setting strict criteria. The

objective is to set the stage to recognize the breadth of research contributions that contribute to excellence. Our challenge is the formulation of assessment criteria to get better publications and improve the quality of research and products.

- **If the metrics of excellence are not sufficiently transparent and/or not tailored to the right context, this can create tension**. Ability to publish internationally in high-impact peer-reviewed journals is not always compatible with the pressure to conduct research that is locally relevant (e.g., designed to address socioeconomic issues).

- **Shift from assessment based on quantity of publications, to a more comprehensive peer review, and new priority towards local relevance.** As these changes are being implemented, this raises challenges for finding a balanced approach to funding diverse kinds of research, across disciplines, types of research, development stage, global and/or local relevance, strengths and career stage of researchers, and individuals versus groups of researchers.

- **There is an under-appreciation measures of impact beyond publications.** Guidance is required to help assessors consider and understand impact and value. Input, guidance and lessons-learned are needed to help advance methodologies and processes. Perhaps a Narrative CV so researchers can outline their main contributions, to help better assess potential and quality.

- **We need to find ways to incorporate and value non-traditional products of research**? There is no good solution around the world yet. The global community would benefit from a conversation. For example: technical transfers, production, advice to the society. We have a narrative CV but it is small, we still need to improve beyond asking "what has been your main contribution in the field?

- **Does every researcher need to be "excellent," and is it ok to simply be "good"?** Research assessment systems should build capacity for the whole of the research community, and should avoid promoting "islands of excellence". Perhaps we could find space to include reviewers outside of academia to provide voice to different abilities and skillsets?

- **The biggest challenge is not policy change, it is behaviour change.** Therefore, reforming research assessment is a systems problem, where all stakeholders in the research ecosystem need to work together to enact culture change at all levels: funders, universities, education programs, publications. Both bottom-up and top-down approaches are needed – there is no one silver bullet.

- **The paper provides an "extremely required perspective" from early career researchers and how important it is for regions to enter that conversation.** There are international barriers to access to funding, scholarships, and mobility, therefore participation. They global system favours those that are privileged with resources and mobility, and have access: the Matthew Effect.

- **Perspectives and processes are biased towards the global north with under-representation and participation from the global south.** Bias and discrimination may be an unintended consequence of regulations, for example the GDPR – EU law on Global Data Protection Regulation, as not all researchers may be comfortable in disclosing for fear of discrimination.

- **GRC as an international actor that brings together the global south and the global north has the potential to catalyze spaces for collaboration and promote an agenda on RRA in the region.** While the paper is very good but it has a weakness: both case studies are from the global north: "**there are perspectives that are missing**." For example, case studies from the global south are included in the book Transforming Research Excellence New Ideas from the Global South.

- **In Uruguay a two-stage evaluation process works well**. A technical peer review committee in the appropriate discipline analyses potential impact and results. From there the proposal goes to a selection committee that includes perspectives from different areas and perspectives. Evaluation includes quantitative indicators, but there are also other inputs from other sub-disciplines. The selection committee is able to consider other factors, such as maternity leave and career stage.

PLENARY DISCUSSION – KEY POINTS

Systems Approach

- **It is time to take a systems approach to the research enterprise**. Responsibility to apply public resources, build fairness and equity into the system, build sustainability into the research environment, empower independence of researchers while promoting a collective approach as appropriate. Challenge researchers and research teams to demonstrate how their research is relevant, impactful, excellent, and how it supports an efficient and sustainable scientific system, and clearly represents the underpinning values.

- **Perhaps incorporate reviewers from outside academia to consider different capabilities, views and impacts.** Are funding agencies positioned to

take a little more time in the evaluation process and to convene panels with additional perspectives.

Broadening Dimensions of Evaluation

- **How can we enhance our current model and methodologies of evaluation, rewards and recognition to include additional dimensions, and to build in mechanisms for change and optimization?** For example, incorporating co-design elements, making space for cultural change within our organization, and stepping back and slowing down to allow change to happen. If we can articulate and make criteria explicit, this will allow us to explore and experiment with different ways to incorporate, such as for example a redesign of the CV.

- **Narrative CV style formats** allow for additional description of contributions to research, training and mentoring.

The Interplay between Procedures, Criteria, and Excellence

- **Definitions for the concepts of excellence and quality are bound to procedures and assessment criteria:** "We have to be very clear on the issue of procedures and criteria to define what we are going to accept as high, low, medium quality, and to make explicit "the rationale behind criteria what you are looking for".

- **What is the concept of excellence, what is the concept of quality?** What do we mean? We are bound to clearly define what we accept, what we expect. not clear why one type of research contribution is better than another. Are they? Are there contexts where one type is preferable? It gets more complex once you get into the transdisciplinary space.

- **Need to be transparent not just about the criteria, but that values behind those criteria and the rationale for change.** Provide tools to reviewers and program officer on how to nudge peer review conversations towards a holistic discussion of each case, aligning with the values behind the criteria.

- **Individual metrics and group metrics are not the same. Good + Good + Good may add up to excellent.** We need to value the contributions that different contributors are bringing to the whole. How do we value team dynamics and novel approaches to research, to knowledge sharing frameworks? How do we differentiate between individual and group contribution?

Bias and Barriers

- **Surrogate measures of quality and impact, such as the h-index, journal impact factors, and the quantity of publications, introduce bias in the merit review process.** In addition, the bibliographic review can cause barriers to both the assessment and the nomination of women, indigenous people and disabled people. The quality of the research is not the same as the influence of the researcher.

- **Criteria should be made explicit and transparent, since a lot of the bias lies in the unwritten and implicit rules that are being applied to the assessment process.** A systems change is really behavioral change. Reviewers have their own biases, beliefs and values. What are the risks around inherent biases in setting criteria, and how do we manage them? Recognizing biases enable strategies for addressing them, for example language fluency. If we are explicit and establish our values, we take power away from the biases as we build the future."

- **How do we reflect on the beliefs and values of our program officers, who run the program?** Do they agree? What guidance is required at that level? Perhaps a practice statement for program officers could be developed that provides a framework on how to view metrics and how to incorporate. A Toolkit for reviewers and program officers running this. Q&A on metrics used.

Equity Diversity and Inclusion

- **We recognize that researchers can face interruptions in their research, training and/or mentoring**—including but not limited to parental leave, medical leaves, leave for family-related illness or responsibilities, bereavement, leave for extraordinary administrative duties, or delays relating to the COVID-19 pandemic. Guidelines are required on how delays should be considered in a manner to promote fair and equitable assessments.

- **Indigenous and women scientists have not been able to publish at the same rate.** How do we learn from Gender-based Analysis Plus (GBA Plus) practices to review criteria, what examples from the Americas, and internationally, can help us to better address gaps and biases?

- **There are barriers for researchers in small fields and sub-disciplines;** small institutions, researchers who work with or in Indigenous communities, fundamental researchers – due to over-emphasis of international contributions in the criteria, and the requirement to have international reviewers on the selection committee.

Collaboration, Co-design and Communities of Practice

- **A system of ranking people does not reflect on how young people address challenges**. It doesn't help to build an environment where people can grow, how the ecosystem can expand to be more collaborative.

- **We need to become better at listening to our communities, to co-design.** It may take more time to engage we must accept that, and identify the gaps so we can move forward. Co-design is a value of inclusion, a shift to a humbler science from a single PI (principal investigator) standing on a stage to a model of collaboration and working together that brings different perspectives and expertise within and outside academia. This is a big cultural shift. The funding agencies of GRC could drive that change but we need to recognize the direction we are going.

- **In Canada, some researchers go to indigenous people´s communities, but then they don´t have the funds to come back** [to share the knowledge with them]. "That is why we made a circle of indigenous people and we take the time to have everyone at the table".

- **How can citizen researchers be recognized, reinforced, motivated and their contributions celebrated?** Perhaps early stage thinking stakeholder mapping and impact of their contributions. Because a lot of the researchers who do not get traditional funding – mainly women – are coming to us [IDRC]. E.g. CSS Women researchers in Mexico who are not supported by CONACYT, though they are community leaders, bring in real time the research to support back their communities, but there is not avenue to celebrate those positioning as part of the evaluation.

- **Communities of practice can help us keep each other in check; validate and learn from each other.** It means developing shared values and shared language on what is important, and co-design.

Regional versus Global Collaboration

- **There is an overemphasis on international contributions at the expense of regional contributions**, such as informing public debates, new approaches to social issues, reduction of waste and pollution, protection of species, of ecosystems. This generates bias in assessment and access to funding. How do we balance regional and global challenges?

- **We are challenged in our efforts to balance funding agencies of different sizes, with different resources, at different levels of development?**

Interacting Spheres of Impact

- **Recognition that there is impact and benefits for society, environment and/or economy in one or more interacting spheres**, such as:

- Improvements to specific procedures in society (e.g., laws, regulations, protocols)
- Stimulation of new approaches to social issues
- Improvements to quality of life
- Informing public debate
- Improvements to policy making
- Reduction of waste and pollution
- Protection of species
- Reduction of the impact of pollutants on ecosystems and humans
- Improvements in the sustainable use of resources
- Protection of ecosystems
- Reduction in the impacts of climate change
- Contributions to economic growth and wealth creation
- Introduction of a disruptive technology
- Creation of a new industrial sector

Valued Case Studies and Guidelines (existing and suggested)

- **Examples of contributions that are valued through the expanded set of contributions and quality and impact indicators** are:

- Advances to equity, diversity, inclusion, and accessibility in the research ecosystem;
- Creation, curation, sharing or reuse of datasets;
- Development and delivery of training workshops outside of research or course requirements
- Outreach to and engagement with students, youth or members of the general public, including through in-person or online targeted activities or capacity building; and
- Support for traditional knowledge or Indigenous ways of knowing, including cultural practices, in the natural sciences and engineering context.

- **The Latin American Council of Social Sciences (CLACSO)** has principles of recognition. More case studies are needed; case studies that monitor successes over time so that there is learning from examples that can inform policy making.

GLOBAL RESEARCH COUNCIL

Asia Pacific Regional Meeting

21-23 November 2022
Bangkok, Thailand

Co-hosts:

PMU-B

JSPS

Thailand Science Research and Innovation

สำนักงานคณะกรรมการวิจัยแห่งชาติ
National Research Council of Thailand

JST Japan Science and Technology Agency

Report on Asia-Pacific Regional Meeting 2022

Introduction

The Global Research Council (GRC) is an international network of heads of science and engineering funding agencies from around the world. Each year, five sub-regional meetings is arranged to discuss the assigned topics that will be addressed at the next annual meeting. This GRC Asia-Pacific regional meeting is one of the 5 parallel regional meetings that convene the experts and the GRC associated parties to provide regional insights, which will be the inputs to further discussions at the 11th Annual GRC Meeting in 2023 in the Netherlands.

The 2022 GRC Asia-Pacific Regional Meeting was held on 21st – 22nd November 2022, in Bangkok, Thailand (Hybridge meeting) and jointly-hosted by Thailand Science Research and Innovation (TSRI), National Research Council of Thailand (NRCT), Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B), Japan Science and Technology Agency (JST) and Japan Society for the Promotion of Science (JSPS). There were 171 participants from 16 countries at this meeting. The meeting started with a welcome speech by Assoc. Prof. Dr. Patamawadee Pochanukul, TSRI President, Dr. Wiparat De-ong, NRCT Executive Director, Mr. Shigeo Morimoto, JST Vice President and Dr. Tetsuya Mizumoto, JSPS Executive Director.

- Eight key topics were discussed at this meeting including:
- Transdisciplinary Research: Impact Oriented Research Collaboration
- Impact Oriented Reward & Recognition Mechanism for Researchers
- Multilateral Collaboration workstream
- Gender and Equality, Diversity, and Inclusion (EDI)
- Responsible Research Assessment (RRA)
- Key messages from COP27 – Accelerating Global Climate Action through Research and Innovation
- Role of Global Research Council and Funding agencies in Tackling Climate Change and
- Global Research Council Vision, Roadmap, and Way-Forward.

This report mainly focuses on the major outcomes of those topics. Two key questions were delivered to all participants right at the beginning of this session. Unfortunately, due to limited time only some sessions achieved while others did not have sufficient time to get to the answers and responses to the posted questions.

Session 1: Transdisciplinary Research: Impact Oriented Research Collaboration

Two key questions related to the perception of the TDR and the role of funding agencies were imposed to all of the participants.

The Perception and understanding about the Transdisciplinary Research (TDR)

Transdisciplinary Research (TDR) is a research approach that is not only working together among different fields of research but also about how we integrate stakeholder participation with research process especially, non-academic participants. The TDR is considered one of the key successes to resolve challenging social issues and is the mechanism that engages key stakeholders as the "co-researchers" rather than information providers. A few successful examples of the TDR were addressed including showcases of Thailand's Program Management Unit on Area-Based Development (PMU-A). The reform of Chiang Mai's Red taxi service known as "Red-cab" public transport management was one of the showcases that involved and dealt with diverse issues such as local politics, business, access to affordable public transport and environmental concerns.

One of the common global challenges that might benefit from the TDR is tackling climate changes' issues. Climate changes have been hindering development of many areas in particular intensified natural disasters like those that happen in the coastal areas. The TDR can provide people's needs of necessary response measure during the event. In Japan, the TDRI has also been using in the community-based disaster risk reduction and disaster education. This is a mixed of action research and knowledge management in practice, which emphasize the integration and co-production of knowledge. TDR can also help discover new methods for carbon footprint reduction, green and sustainable energy using more participatory approach. Nevertheless, there is a need for financial support to scale up TDR's result, especially, in developing countries.

TDR is not without challenges. A proper design of the TDR is required in order not to neglect the marginalized stakeholder groups. The TDR approach could be complicated, involve higher risks, and be more costly to fund a proper TDR program. The evaluation of the TDR is also difficult since non-academic involvement is relatively limited under the current process.

- In summary, many agencies have different experiences in the TDR in different fields. The TDR involves both academic and non-academic stakeholders. It is to have many aspects from many stakeholders to focus on single issue while relying on scientific research

method. This aims to create new value from knowledge and experience from non-academic participants. The TDR can be community-, regional- or global-based. Engagement among stakeholders is not limited to research data collection but co-create in every process, such as, co-design, co-delivery and co-evaluate. TDR result will yield both research result and sustain collaborative mechanism.

- Challenges of TDR includes readiness of non-academic researchers, communications with different interest groups, difficult to find evaluators for TDR project proposal, financial issues, complexity and project management issue, silo amongst stakeholders
- TDR is seen as a good approach to response to common social and environment issues. This includes both current and future issues that typically needs knowledge and engagement beyond multidisciplinary approach.

Role of funding agencies

- Funding agencies should have more systematic approach to support the TDR; such as, explicit proposal requirement, proper proposal evaluation, and special programs for the TDR.
- Funding agencies should facilitate the TDR with mechanism, design and modalities that support the TDR. For instance, encouraging networks between researchers and stakeholders, providing database of people, providing supports for direct engagement of key stakeholders, and providing funding modalities that suitable for TDR projects including multi-year (5+) research project support.
- More active approach to encourage the TDR is needed; for instance, funding agencies may demonstrate the benefit for researchers to the TDR, e.g. reduce cost of data collection, publication/publisher that promote TDR in higher ranking.
- The TDR assessment criteria should be clearly developed and should not focus merely on academic rigorous but contribution and impact on stakeholders.
- Research communities' viewpoint, research institutes, universities and individual researchers' mindset are key to increase the quality of the TDR projects. Funding agencies can use their grants to encourage changes in this perspective

Session 2: Impact Oriented Reward & Recognition Mechanism for Researchers

Reward and Recognition can boost the creativity and enthusiasm of researchers, and further promote the advancement of scientific knowledge. However, from the past to present, we have usually judged the quality of researchers based on their publication, such as the number of publications, impact factors, H-index, RG scores and citation index, respectively. These indicators have put more pressure and concern on researchers about their career paths, turning research culture into a "Rat-Race Era." Therefore, funding agencies are encouraged to rethink about the way we reward and recognize researchers. This would become very

challenging to find the assessment procedures that recognize the diversity in scientific outputs that eliminate journal-based metrics.

Appropriate acknowledgment and appreciation of researchers' efforts were discussed in this session starting with a short video reporting the Discussion Paper by the Dutch Research Council (NWO). The Paper highlighted global changes in the way we assess scholars and grant proposals. In 2012, the San Francisco Declaration on Research Assessment (DORA) focuses on the recognition of diversity in scientific outputs. Assessment must recognize diversity in research results. Two case studies were presented, and more details can be found in the Discussion Paper (attached.) National institutions are encouraged to implement these changes in their own contexts.

In Thailand, there is the advancement of career supported by the National Research Council of Thailand (NRCT). NRCT presented National Research Awards for top-ranked researchers which were National Research Outstanding Award, Research Award, Thesis Award and Invention Award. Those awards have used different ways to assess the researchers' performance, including the impact on society, innovations, and academic track records. Moreover, the new tracks of professorship were initiated by Thailand's Ministry of Higher Education, Science, Research and Innovation (MHESI) to diversify how researchers can be recognized.

The National Research Foundation (NRF), South Korea, presented the research assessment system in South Korea which were consisted of five steps of assessment: preliminary review, selection of reviewers, evaluation, allocation of research fund, and selection of projects. Therefore, the originality and creativity weigh 60% of the evaluation criteria. Innovative efforts were promoted at NRF for a transparent review system, qualitative assessment, and education system for reviewers. However, there are challenges that rely on prejudice by previous achievements, lack of expertise, and biased reviewer. The NRF was suggested that the reviewers need to respect the differences in research fields for reliable and responsible evaluation.

The National Research and Innovation Agency (BRIN) introduced the 9 research funding schemes which was designed to directly focus on and target the research proposals with different levels of Technology Readiness Level (TRL). In BRIN, researchers' efforts will be recognized by number of Ph.D. students, potential of commercialization, publications and patents, matching funds with partners, and more that will be included in the future.

The Dutch Research Council (NWO) has shared that the diversity in academia is important for one's career path and will lead to better research performance. Therefore, the shift requires efforts from research funders and universities. The Netherlands's national program in reforming and modernizing academic systems includes the recognition such as academic

performance (excellence in education, research impact, and leadership), research creativity and contribution, groups' performance and narrative CV.

During the groups' discussion, new ways to translate the global to local rewarding systems must be proposed. International reviewers will be a great complement by bringing international perspectives to the reviewing systems. The reward system for basic science researchers can be done in a form of new networking for future collaboration. furthermore, we need to encourage this kind of award to the early / mid-level of researchers, "Be more inclusive to all level of researchers" and encourage open access as well.

The introduction of narrative CV and Guideline for researchers, "training and mentoring" were addressed and considered essential. The track record of researchers should be implemented and systematically used among funding agencies. The challenges of funding agencies are to consider other assessment system/tools and secure excellent reviewers domestically and internationally.

The session concluded with an agreement that the research funding agencies will need to work together globally to create bigger reward and recognition systems and be a game changer.

Session 3: Multilateral Collaboration Workstream

The Multilateral Collaboration Workstream was originated from the side-event at the 10th GRC Annual Meeting in June in Panama. The GRC brought actors from these forums like e-ASIA Joint Research Programme, the Human Frontier Science Programme (HFSP), Belmont Forum, Weave (Europe), SDG GRC pilot, G7 Funders, together to share their practices and add distinct research funders' perspective.

The challenges in multilateral project settings were identified: what to fund, how to address differing impact expectations, funding and legal restrictions / IP agreements. However, we could learn from existing initiatives and networks by stimulate communication across funding agencies and networks. National/local impact and international/global impact are encouraged to take into consideration. Transdisciplinary/crossdisciplinarity has some potential – but challenging. Those challenges require strong national funding systems to build on, and the perspectives/expectations of funders might vary significantly. Nevertheless, Low- and Middle-Income Countries (LMIC) should get connected. For those funders who momentarily do not have resources are encouraged to join calls.

The Role of the GRC:

GRC is a crowd of funders who are close to national research communities and political decision makers. GRC could access to crucial information, knowledge generated locally, made available globally to foster collaboration and build on GRC Statements of Principles as basis for framework of funders to agree on joint funding activities. However, GRC does not duplicate the structures of existing available mechanisms and avoids competition with national funding.

Regards to the preliminary results of the initial discussions during the GRC Side Event on Multilateral Collaboration in Panama, the GRC Governing Board has mandated the organisers of the Side Event to develop a Concept Paper that should outline options for a continued and goal-oriented discussion towards scoping and implementing possible roles for the GRC in facilitating multilateral scientific collaboration.

Session 4: GRC Gender Working Group

The Gender Working Group (GWG) was formed in 2017 to contribute to the implementation of the Statement of Principles and Actions: Promoting the Equality and Status of Women in Research (endorsed 2016). Accountable to the Executive Support Group, the GWG is guided, in its deliberations, activities and strategic planning by the two overarching considerations adopted by its action plan: the participation and promotion of women in the research workforce; and the integration of the gender dimension in research design and in the analysis of research outcomes. The GWG has renewed Mandate and its five-year vision, subject to annual approval and renewal by the Governing Board. In the next decade, the GWG will contribute to the GRC objective on championing a more equitable, diverse (nationality), sustainable and inclusive (equality diversity and inclusiveness: EDI) future to harnesses the diversity of talent which can contribute to the research and innovation enterprise. There are three workstreams to achieve that objective i.e. the sex and gender dimension in research, bullying and harassment, as well as Gender, Equality, Diversity and Inclusion (EDI) data.

Rich discussion came from showcases and sharing experiences given by SEAMEO Regional Centre for Higher Education and Development (SEAMEO RIHED), Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B), Thailand, and National Institute for Science and Technology (INCT), Timor Leste respectively. Starting with SEAMEO RIHED, different perspective on the diversity of culture was shared e.g. in Myanmar, a lecturer job is perceived as a feminine job. In Southeast Asia, there are only Thailand and Philippines that have more than 45% of female researchers in the Higher Education Institution, while the global average is 30:70 (Female: Male). With respective to the Research Ecosystem in Southeast Asia, certain concerns like the equitable, diverse, sustainable and inclusive (EDI) barriers require some action. A practical and strategic

gender and gender dimension are needed. Unfortunately, none has specifically spelled out the issue of gender in the research strategy except the Philippines which has stated in terms of increasing women in research.

PMU-B demonstrated another example the Gender Recognition in ASEAN. The panelist from PMU- B experienced herself as an awardee of the 2016 ASEAN-US Science Prize for women at the ASEAN Committee on Science, Technology, and Innovation (ASEAN COSTI) Meeting. As females are expected to handle both family's house shore and advance their career, merely award recognition shall not suffice. Moral support should also be taken into consideration.

National Institute for Science and Technology (INCT), Timor Leste shared a similar mechanism that promotes women who are in the research regime. The Supporting women in the research prize was also given in 2022. Moreover, INCT has funded research projects for female researchers which increase the amount of funding from 21.60% in 2019 to 36.50% in 2022.

Many opinions were addressed during the group discussion. There are several ways to increase the opportunity for the women researchers such as ensuring that women representatives are involved in the peer working group, providing necessary infrastructure/environment for female researchers, especially motherhood. The awards designed especially for female researchers can be a gateway for more opportunities. Therefore, the narrative CV can be a tool to increase chances of female researchers to get research grants. In this regard, the GRC can be the platform where relevant information and the advice to advance the research effort can be shared. It is important to ensure that we move towards the same direction, to enable local and national institutions to implement these changes in their own respective ways.

Session 5: GRC Responsible Research Assessment (RRA) Working groups

The RRA Working group of the GRC is in its early stage composing of four main objectives as follows:

1. Use the GRC's position to advance globally for the importance of RRA for improving the quality of research assessments. Work towards a shared understanding and goal for RRA within GRC participants and their funded organizations based on existing definitions of RRA.
2. Share practice and guidance in implementing and embedding RRA in GRC participant organizations, and in those that they fund and support.
3. Use the collective understanding gathered through the activities under Objective 2 to galvanize support and enable coordinated action in the GRC participant organizations

to make progress towards implementing common RRA principles and frameworks across the global research system.

4. Extend the knowledge base where gaps and barriers in funders' RRA persist or emerge, building on existing work where possible.

The goal of this session is to practice and guidance in implanting and embedding RRA in GRC participating organizations.

The chair, Japan Society for the Promotion of Science (JSPS), highlighted that responsible research assessment (RRA) consists of four characteristics which are anticipation, reflexivity, inclusion, and responsiveness as the introduction of RRA.

Ministry of Business, Innovation and Employment, New Zealand (MBIE), New Zealand, presented three important challenges in research assessment including misuse of narrow criteria, lack of diversity of research mission and purposes, and systematic bias. These can be solved by RRA. Thus, GRC has established the RRA working group to promote the use of RRA. Nonetheless, RRA is facing a moment of challenge and action. The involvement of other stakeholders needs to be taken into consideration. This also requires a strategic move regarding how to move from RRA with an individual support to expand to a community support and implementation.

National Natural Science Foundation of China (NSFC), China shared China's experience on the RRA. Currently, China has prioritized their research to meet with the local relevance. The research assessment, criteria and weight of peer review are designed and grouped into different categories to evaluate different types of research. Strong focus is placed on research novelty, science value, and social outcome. According to China's experience in promoting the RRA, main issues are 1) it takes time to reach consensus in the RRA, 2) education and training is significantly required to prepare stakeholders for the RRA, 3) a careful experiment is needed prior to using the RRA at full scale.

MBIE further shared a report on the practice that indicates how they have embedded the RRA to future research. This report was supported by an endeavor fund. The practice states that fairness, consistence, rigorousness, and transparency are the key factors. The RRA must be cost effectiveness. Also, college of assessors is needed to prepare manpower. Criteria of assessors must also be clear. MBIE also presented an introduction of the assessment guideline. The guideline points out that one of the problems is that currently there are not enough assessors for the RRA application. Nevertheless, there is an opportunity that the RRA can be considered as a global approach by aligning assessment and assessors globally.

JSPS explained "KAKENHI program" which is the largest competitive funding program for researchers in Japan. A bottom-up approach and applications from all research fields are

taken through open calls and the applications are evaluated via peer review. All of the reviewers, more than 8,000 per a year, are assigned by JSPS-Research Center for Science System (JSPS-RCSS). Three responsibilities as 1) applicant, 2) researcher and 3) reviewer are demanded for researchers. As for the Responsibilities of Applicant and reviewers, JSPS has the KAKENHI Review system and the review procedures to develop a system that encourages researchers to make creative research challenges. In terms of Responsibilities as an Applicant, Japanese government established Research Integrity and Security Export Control Policy for the emerging risks to continue overseas joint research. JSPS follows the policy of Research Integrity and Security Export Control. In terms of Responsibilities as a reviewer, JSPS mentioned JSPS-RCSS plays a wide range of roles for JSPS review systems.

Finally, National Science Foundation, Sri Lanka, presented practice of the RRA in Sri Lanka. These includes 1) double blind review 2) guideline for assessment 3) standard application form 4) applicant track record 5) element to be considered by reviewers and 6) letter to inform both successful and unsuccessful applicants. The challenges to the RRA are 1) limited funding and expenses on the RRA and 2) resistance to change, while the opportunities are 1) global collaborators and 2) social assessment to promote output and outcome. Some comments and queries related to 1) communications among researchers, 2) lack of reviewers and difficulties of selecting distinguished reviewers in non-English-speaking countries caused by the small population parameters of reviewers and its subordinate language barriers for both applicants and reviewers and 3) conflicts of interest were raised by panelists and participants and related practices from some countries are introduced.

Plenary Talk: Key messages from COP27 – Accelerating global climate action through research and innovation)

National Higher Education, Science, Research and Innovation Policy Council (NXPO) as the "Focal point for Thailand's Climate Technology Centre and Network (CTCN)" presented United Nations Framework Convention on Climate Change (UNFCCC) which aims to promote the accelerated development and transfer of climate technologies for energy-efficient, low-carbon and climate-resilient development, at the request of developing countries. UNFCC consists of two bodies which are the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN). Therefore, CTCN/Technology Mechanism promotes Climate Action through Technology Transfer, in collaboration with Financing Mechanism. Thailand has 6 projects under the CTCN which are 3 adaptation Projects and 3 mitigation projects.

NXPO also has highlighted the COP27 which are "Accelerating Climate Action through Technology Development and Transfer" and "Supporting countries to achieve the goals of the PA and the United Nations Framework Convention on Climate Change (UNFCCC) and to

implement national climate plans through transformative technologies". The Joint Work Programme of the UNFCCC Technology Mechanism will be held during 2023-2027 with the key activities: Technology Roadmaps, Digitalization in the common areas of work such as National Systems of Innovation, Water–Energy–Food Systems, Energy Systems, Buildings and Resilient Infrastructure, Business and Industry, and Technology Needs Assessment (TNA).

The São Paulo Research Foundation (FAPESP) presented that GRC promotes an effort on evolving climate change research and the need for collective responsibility, ensuring the production of science be carried with the responsibility of the urgency, integrity of the results, practical application for transformation and strengthen the communication with society and decision makers. Most countries are developing strategies and have committed, through individual National Determined Contribution (NDC), to achieve the directives of the Paris Agreement. Reducing gross greenhouse gases emission and achieving net zero emissions by 2050 or beyond will require profound transformations in our society, and scientific and traditional knowledge are essential to developing the best strategy for each socioeconomic sector of each country.

FAPESP has highlighted that there something new on Asia in Assessment Reward 6 (AR6). These include

- Adaptation in energy sector is becoming increasingly crucial in Asian region, which has been assessed in a new subsection.
- Adaptation technology and innovations are also of high importance for the region. Classification of adaptation technology and its use in different systems are assessed.
- On the governance side, the nexus approach among several systems like food, energy and water is highlighted, and its importance is assessed.
- New concepts on decentralized and self-reliant society, such as the integrated adaptive governance.
- As a part of a sustainable development pathway, interlinkages of climate change adaptation (CCA) and disaster risk reduction (DRR) are highlighted

There are three elements for a potential GRC initiative on the Climate Change challenges as follows:

Part 1: Characterization of the GRC: Considering the main characteristics of the GRC and decide on funding strategies and allocation of resources
Part 2: Vision and Mission of the GRC 1: Considering that the GRC has developed a Strategic Vision encompassing; The notion that research and innovation play a leading role in providing the solutions that society needs to overcome the global and interconnected

challenges of our time, - work in partnership to create the conditions in which international research cooperation and collaboration can thrive

Part 2: Vision and Mission of the GRC 2: The will to foster worldwide multilateral cooperation among agencies involved in research and science. The increase of the GRC work among its participant organizations and other international organizations, as well as the international research and innovation community, and to enhance the role of and engagement with GRC Regional Meetings.

Session 6: Role of Global Research Council and Funding agencies in Tackling Climate Change

Harmonizing Research Prioritization

- **Engagement:** There's the need to engage with other areas of government who have experts or who also fund initiatives related to climate change such as the Country's Ministerial level or international governmental bodies.
- **Potential Research Topics from National Issues:** Each country and region have their own emerging issues for Climate Change which are used as the priority criteria for research. Each agency has their own climate change programs such as South Korea has 18 programs on climate change. One of the common issues for countries located in the ocean area is the natural disasters. Some of the countries do not have the call for climate change such as Indonesia and some have the call available such as the Philippines. So, the potential topics are such as early warning system & loss and damage. (How might we quantify the damage that happened from the natural disasters?)
- **Harmonization:** There is a need for breakthrough in Technology. With the limited funding, it is difficult to fund from the numerous and various bottom's up ideas. GRC could arrange scoping meetings or landscape studies to determine the shared research priorities in the regional and global level.
- **Dissemination:** There should be the articulation and promotion of the results of the studies/meetings as the climate change research guideline. The national level funding agency could benefit from the results of the scoping studies to define their own research priorities to align with the regional and global goals. This may be the method of harmonizing the prioritization for both regional and global level.

Crosscutting Topics in Climate Change

- **Potential crosscutting topics from common issue:** Climate change is a global issue so the funding agency should combine some issues or common issues such as temperature rise, the increasing storms and sea level risings. The transdisciplinary

research could focus on solving the common issues through long-term research program. For example, e-ASIA has the transdisciplinary research program for 3-5 years.

- **Basic to Applied Research:** Crosscutting topics could be determined as the way to bring basic research into applied research. For example, in Japan, there are different funding agency that are responsible for different stages of application process. The communication between the funding agency locally and globally is very important to bridge between basic and applied research.
- **Top down/Bottom Up approach:** The cross cutting issue could be formed with top down approach with the identified Thrust area under specific topics. The crosscutting thrust area could be: climate change; resilience; settlement infrastructure; elder population & effect of climate change; food security minimization;
- **Adaptation in parallel with Mitigation: There** is a need to consider adaptation research in parallel with mitigation research. For example, Thailand has a big focus on mitigation topics like carbon capture and carbon storage technologies. However, Thailand is also very much affected by climate change and disasters and need to develop the resilience city to tackle the climate change.
- **Communication:** There is a need to translate the message to the research community and the public and communication is the key.

Session 7: Global Research Council Vision, Roadmap, and Way Forward

The GRC Executive Secretary reported that each year, GRC hosts the GRC's Annual Meeting, to bring together the participants to discuss topics of mutual interest. There are the activities which hold during the annual meeting like Heads of national research councils (HORC's) Level Meeting, Strategic discussions on the development of the GRC, Strong networking and exchange of ideas and initiatives, Endorsement of the Statement of Principles (SOPs) and Presentation and reporting from the Working Groups.

The GRC side events are also important as it is the opportunity to expand the discussion to cover other current topics of mutual interest with the possibilities to engage a wider audience of international stakeholders. The example of the spontaneous initiatives to regular calls from the Executive Secretary was Panamá City which the topic is on the sustainable development of the Amazon region which could bring the multilateral engagement.

The results from the side event from every region will be reported and discussed at the GRC annual meeting. The next 11th Annual Meeting will be held in June in 2023, the Hague, the Netherlands. This meeting will be co-hosted by NWO and FAPESP with the topics 1) Innovations in recognizing and rewarding researchers and 2) the responsibilities and opportunities of research funders in addressing climate change – towards the GRC Climate Change Initiative. In 2024, the 12th Annual Meeting will be held in Switzerland and co-host

by Swiss National Science Foundation (SNSF), Switzerland and Science, Technology and Innovation Fund (FONSTI), Ivory Coast.

The GRC Executive Secretariat invited the GRC participating organizations to submit proposals for side events to be taking place within the sidelines of the Annual Meeting in the Hague, the Netherlands, in May-June 2023 and further encouraged the participants to submit topic suggestions for the 2024 Annual Meeting to the Program Committee.

Besides the meeting, there are the Commission of a Foresight Report for the GRC which is being commissioned by UK Research and Innovation (UKRI) on behalf of the Global Research Council (GRC) and co-funded by UK Research and Innovation (UKRI), German Research Foundation (DFG) and FAPESP and a previous GRC foresight report which was published in 2017. The Objectives of the present exercise are (1) Undertake qualitative data collection and analysis to deliver outcomes and recommendations to the GRC's Governing Board on the impact and outputs of the GRC over the past 5 years (2) Provide a baseline against which progress under the new Vision and Roadmap can be monitored and (3) Identify and present case studies of the GRC's outputs over the past 5 years, to be used in future GRC communications. The GRC would like to invite the participating organizations to engage in the foresight report.

List of organizations participating in the meeting:

- Alliance of International Science Organizations (ANSO) Badan Riset dan Inovasi Nasional (BRIN), Indonesia Chulalongkorn University, Thailand
- Department of Biotechnology Research, Ministry of Science and Technology, Myanmar Department of Earth Science, National Natural Science Foundation of China
- FAPESP Research Program on Global Climate Change, Brazil Global Research Council
- Iran National Science Foundation, Iran
- Japan Science and Technology Agency (JST), Japan Japan Science and Technology, Singapore Office
- Japan Society for the Promotion of Science (JSPS), Japan JSPS Research Center for Science Systems
- Kasetsart University, Thailand
- King Mongkut's University of Technology North Bangkok, Thailand
- Ministry of Business, Innovation and Employment (MBIE), New Zealand
- Ministry of Higher Education, Science, Research and Innovation (MHESRI), Thailand National Institute of Science and Technology (INCT), Brazil
- National Natural Science Foundation of China (NSFC), China National Research and Innovation Agency (BRIN), Indonesia National Research Council of Thailand (NRCT), Thailand National Research Foundation of Korea, Korea

- National Research Foundation, Singapore
- National Science and Technology Development Agency (NSTDA), Thailand National Science Foundation, Sri Lanka
- National Vaccine Institute, Thailand
- NWO Dutch Research Council, The Netherland
- Office of International Cooperation Planning, National Research Foundation of Korea (NRF), Korea Office of the National Higher Education, Science, Research and Innovation Policy Council, Thailand
- Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD), Philippine
- Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B), Thailand
- Program Management Unit on Area Based Development (PMU A), Thailand QNRF-Division of QRDIC, Qatar
- Ritsumeikan University, Japan
- SEAMEO Regional Centre for Higher Education and Development (SEAMEO RIHED) Thailand Environment Institute, Thailand
- Thailand Institute of Scientific and Technological Research (TISTR), Thailand Thailand Science Research and Innovation (TSRI), Thailand
- Universitas Airlangga, Indonesia University of Sassari, Italy
- Vietnam Academy of Science and Technology, Vietnam World Bank

Annex

Questions for Discussion

Session 1: Transdisciplinary Research: Impact Oriented Research Collaboration

1. People may have different aspects/understanding regarding the Transdisciplinary Research (TDR)? According to your experiences, how do you perceive the TDR?
2. What actions should funding agencies take in order to promote the TDRI in corresponding to the definition of the TDR above?

Session 2: Impact Oriented Reward & Recognition Mechanism for Researchers

1. How can local and national context be taken into account in this global initiative?
2. What are the specific responsibilities of funders in contributing to the R&R change and What can be done to overcome existing barriers to the evolution of R&R mechanisms?

Session 3: Multilateral Collaboration Workstream

1. Challenges in multilateral project settings and potential gaps in the international funding landscape
2. Potential next steps to advance multilateral engagement in the context of the GRC

Session 4: GRC Gender Working Group

1. What have been your agency's experiences regarding rewards and recognition in a way that supports diversity of talents and scientific career pathways, team research and/ or integrates gender considerations? Has anything in particular had some impact?
2. "Shift the focus from the researcher "track record" to "research opportunity". What have been your organisation's experiences regarding implementing this from the 2016 GRC Statement of Principle and Actions on the Status and Equality of Women in Research, as linked to rewards and recognition?
3. (The traditional approach to track record can penalise researchers who have a career gap – often related to care giving responsibilities – in their record. Shifting the focus from "track record" to "research opportunity" may ensure that career development and progression are not affected adversely by significant or extended periods of, for example, career interruptions, parental leave or part-time work. "Research opportunity" in this context considers how a researcher's productivity and contribution throughout their career corresponds to the opportunities that have been available to them)
4. How do you think the GRC GWG can support ASPAC GRC participating organizations to further integrate gender and diversity considerations in their rewards and recognition processes?

Session 5: GRC Responsible Research Assessment (RRA) Working Group

1. What additional supports (information, resources, others) would you need to be able to implement best practices in RRA? Do you see a role for the GRC in providing this support?
2. How can the GRC best advocate for the importance of RRA? Where are the leverage points and how can we access them?

Session 6: Role of Global Research Council and Funding Agencies in Tackling Climate Change

1. How might the funding agency prioritize funding program/topic to reach the global climate goals? (What are the priority topics for each discipline to tackle climate change?
2. How might the funding agency design the overarching framework for the cross-disciplinary program toward the environmental & societal impact? (such as: environment – health; climate action – inequality; etc.)

Agenda

Monday, 21 November 2022

08:30-09.00	Registration
09:00-09:20	**Opening Ceremony** *Welcome Speech by* · **Assoc. Prof. Dr. Patamawadee Pochanukul** President of Thailand Science Research and Innovation (TSRI) · **Dr. Wiparat De-ong** Executive Director of the National Research Council of Thailand (NRCT) · **Mr. Shigeo Morimoto** Vice President, Japan Science and Technology Agency (JST) · **Dr. Tetsuya Mizumoto** Executive Director, Japan Society for the Promotion of Science (JSPS)
9:20-9:50	*Opening & Keynote Speech by* **Prof. Dr. Anek Laothamatas** Minister of Higher Education, Science, Research and Innovation *"Driving Research toward Global Societal Impact by Bridging the Science and Social Science Research"*
9:50-9:55	Phot Session
9:55-10:05	Introduction of the Global Research Council (GRC) by **Ms. Carolina Costa** Deputy Executive Secretary, Global Research Council
10:05-10:30	Coffee break
10:30-11:30	**Session 1: Transdisciplinary Research: Impact Oriented Research Collaboration** Panelist:

	· **Assoc. Prof. Poon Thiengburanathum** Deputy Director, Program Management Unit on Area Based Development (PMU A), Thailand · **Dr. Muthukumara Mani** Lead Environmental and Climate Change Economist for the Southeast Asia Region of the World Bank · **Assoc. Prof. Yusuke Toyoda** College of Policy Science and the Graduate School of Policy Science, Ritsumeikan University · **Prof. Paola Rizzi** University of Sassari Group Discussion & Summary Chair: **Assoc. Prof. Poon Thiengburanathum**, Deputy Director, PMU-A Co-Chair: **Mr.Kwanpadh Suddhi-Dhamakit** Country Officer, World Bank Support **Dr. Atichat Preittigun**, Advisor to TSRI
11:30-12:30	**Session 2: Impact Oriented Reward & Recognition Mechanism for Researchers** Panelist: · **Prof. Dr. Sanong Ekgasit** Chulalongkorn University · **Dr. Dong-Seob Kang** Director, Office of International Cooperation Planning, National Research Foundation (NRF), Korea · **Prof Dr. Agus Haryono** Deputy Chairman for Research and Innovation Facilitation, National Research and Innovation Agency (BRIN), Indonesia · **Mr. Berry Bonenkamp** Senior Policy Officer, Dutch Research Council (NWO) Group Discussion & Summary Chair: **Asst. Prof. Dr. Akkharawit Kanjana-opas**

	High-level Specialist, System Development Division, Thailand Science Research and Inovation (TSRI) Support: **Dr. Sasitorn Srisawadi** Senior researcher of National Metal and Materials Technology Center (MTEC), National Science and Technology Development Agency (NSTDA), Thailand
12:30-14:00	Lunch
14:00-15:00	**Session 3: Multilateral Collaboration Workstream** Panelist: · **Dr. Euclides Mesquita** GRC Executive Secretary · **Mr. Osamu Kobayashi** Director, Department of International Affairs, Japan Science and Technology Agency (JST)
15:00-15.10	**Coffee break**
15:10-16:30	**Session 4: GRC Gender Working Group** Panelist: · **Dr. Romyen Kosaikanont** Center Director, SEAMEO Regional Centre for Higher Education and Development (SEAMEO RIHED) · **Ms.Thilinakumari Kandanamulla** International Affairs Division, National Science Foundation, Sri Lanka · **Ms. Nicola Jenkin** Ministry of Business, Innovation and Employment (MBIE), New Zealand · **Asst. Prof. Dr. Worajit Setthapun** Deputy Director for Global Partnership Program Management Unit for Human Resources & Institutional · **Dr. Jose Cornelio Guterres** National Institute of Science and Technology (INCT), Timor-Leste Group Discussion & Summary

	Chair: **Ms.Thilinakumari Kandanamulla**, International Affairs Division, National Science Foundation, Sri Lanka Support: **Asst. Prof. Phrae Sirisakdamkoeng**, Director of the Inclusiveness, Environment and Social Development Division TSRI, Thailand
	Session 5: GRC Responsible Research Assessment (RRA) Working groups Panelist: · **Dr. Li Wencong** Director, Division of Asia, Africa and International Organizations, Bureau of International Cooperation, National Natural Science Foundation of China (NSFC) · **Ms. Joanne Looye** Director, Science System, Investment and Performance, Ministry of Business, Innovation and Employment (MBIE), New Zealand · **Dr. Otani Yoshio** Director, JSPS, Japan · **Eng. Mahesh Dissanayake** Head, Research Division, National Science Foundation, Sri Lanka Group Discussion & Summary Chair: **Dr. Tetsuya Mizumoto** Executive Director, JSPS Support **Asst.Prof.Dr. Tanapon Phenrat** High-level Specialist, Monitoring and Evaluation Division
18:00-21:00	Reception Dinner at the local by Oam Thong Thai Cuisine, Sukhumvit 23 Attire: Smart Casual

Tuesday, 22 November 2022

8:30	Registration
9:00-9:30	Plenary Talk: Key messages from COP27 – Accelerating global climate action through research and innovation Speakers: • Dr. Surachai Sathitkunarat Assistant to the President of Office of the National Higher Education, Science, Research and Innovation Policy Council "Focal point for Thailand's Climate Technology Centre and Network, (CTCN)" • Prof. Jean Ometto Steering Committee - FAPESP Research Program on Global Climate Change
9:30-9:45	Coffee break
9:45-11.15	Session 6: Role of Global Research Council and Funding agencies in Tackling Climate Change Panelist: • Dr.Wijarn Simachaya President of Thailand Environment Institute Acting Director of Environmental Network and Climate Change Program • Dr. He Jianjun Department of Earth Science, National Natural Science Foundation of China (NSFC) • Dr. Enrico Paringit Executive Director, Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD) • Mr. Shigeo Morimoto Vice President, Japan Science and Technology Agency (JST) Group Discussion & Summary Chair: • Dr. Worajit Setthapun Deputy Director PMU B Support • Dr. Doungkamon Phihusut Senior Analyst, PMU-B

11:15-11:45	Session 7: Global Research Council Vision, Roadmap, and Way Forward Speakers: Dr. Euclides Mesquita GRC Executive Secretary
11:45-12:00	Closing Speech by • Assoc. Prof. Dr. Pongpan Kaewtatip Vice President, TSRI • Dr. Wiparat De-ong Executive Director, NRCT • Dr. Worajit Setthapun Deputy Director PMU-B • Mr. Shigeo Morimoto Vice President, JST • Dr. Tetsuya Mizumoto Executive Director, JSPS
12:00	Lunch

Wednesday, 23 November 2022 – Excursion Day

8:15	Depart from Novotel Siam Square hotel
9:30	Arrive at the National Museum
9:30-11:30	Two-hour tour of the National Museum
11:30	Depart for lunch
12:00-13:30	Lunch at Sala Ratanakosin restaurant
14:00	Arrive at the hotel

GLOBAL RESEARCH COUNCIL

Europe Regional Meeting

12-13 December 2022
Harwell, UK

Co-hosts: SCIENCE EUROPE UK Research and Innovation

Report on Europe Regional Meeting 2022

GENERAL NOTES

The Europe Regional Meeting took place on the 12th and 13th December 2022, at the Rutherford Appleton Laboratory on the Harwell Campus in the UK. The meeting was co-hosted by UK Research and Innovation (UKRI) and Science Europe.

The meeting was attended by a number of European GRC Participants and guests, with a total of 34 attendees in-person and an additional 25 online across the two days. The meeting took place in a hybrid format, with both in-person and online breakout groups, presentations and panel discussions.

RECOGNISING AND REWARDING RESEARCHERS

SUMMARY OF KEY MESSAGES

It was widely agreed that the traditional methods and metrics for assessing researchers (based on publications-related metrics) were no longer appropriate, and that new assessment methods that recognise the diversity of scientific outputs are necessary.
There are a number of initiatives that have been developed and are beginning to be implemented across Europe addressing issues of recognising and rewarding researchers.
Attendees acknowledged and emphasised that changes to research assessment require cooperation and support across the sector, working with the community but also across RPOs and RFOs to ensure an aligned direction that makes the process of change straightforward for researchers.
Research funders have specific responsibilities to lead by example, fund evidence gathering and contribute to the development of infrastructure and tools to support the change
Research culture is an important consideration when thinking about changes to rewards and recognition systems – funders should support research culture evolution and should fund activities that enable culture change and support champions of culture change.
It was acknowledged that there are different perspectives, appetite and degree of scepticism across organisations and countries too. By working collaboratively and in cooperation, these concerns can be mitigated.

SPECIFIC REMARKS/TOPICS

COOPERATION AND INFORMATION SHARING AMONGST FUNDERS

It was acknowledged that there is a wide variety of initiatives, experience and approaches towards reforming of research assessment and reward, not only across the Europe region but also globally. This variety provides an established and useful resource of experience for

GRC Participants to share and utilise. It should be acknowledged that whilst one approach may not work for all funding systems, there should be unified principles to ensure every funder is following a similar direction. This will help to protect the mobility of researchers, encourage diversity and collaboration.

Research communities should firstly consider developing common shared values and principles, rather than being wholly prescriptive in the initiatives that each country/organisation should take. If there is an aligned set of principles, then whilst there may be different initiatives globally, they should still be able to align with each other and contribute to promoting a healthier and desirable research culture.

It is important when reforming how we recognise and reward researchers that we take a collaborative approach that involves the community. The change required can only happen with the support of researchers themselves, there needs to be a regular dialogue with the community to engage them in the changes. Attendees highlighted that a coalition between RFOs and RPOs would be the ideal – with continual feedback throughout the process. There is a need to ensure that any new processes are not extra undue burden on the community without a clear benefit.

As research funders, GRC Participants have specific responsibilities to lead by example on changes to research assessment. This includes funding evidence gathering and research-on-research, whilst also contributing to the development of infrastructure and tools to support change. The use of evidence-gathering and initiatives such as communities of practice are useful tools for widening cooperation, engaging the R&I community and gathering a range of perspectives and experiences.

Finally, the scepticism around changes to how we reward and recognise researchers should not be ignored. The GRC has a platform for discussion around the concerns and barriers and this should be utilised, not only between research funders but also in the wider research community.

SUPPORT FOR RESEARCH CULTURE CHANGE, INCLUDING COMMUNICATION TO AND WORKING WITH THE COMMUNITY

Attendees emphasised that the reward and recognition of researchers should be considered within wider culture change across the research community. Research culture is an important consideration when thinking about changes to reward and recognition systems. Funders should support the evolution of research culture and should consider implementing and supporting activities that enable culture change alongside any reforms to the way research is assessed.

To support this process and to see effective implementation of any proposed changes, communication and advocacy is vital. Meaningful engagement with the community throughout the process of change is important and any initiatives need to be developed in dialogue with those who will be using them.

Education and training for panels and committees was highlighted as being key to ensure coherence at all levels. The move from metrics-based indicators towards more qualitative measures will increase subjectivity in assessment, therefore training should go beyond just providing assessors with a criterion.

Similarly, if funders are asking more of the research community; both in terms of peer review but also in the way they submit their applications, should they reduce the administrative burden elsewhere? Funders may wish to consider the length of their funded projects – for example, could the timeframe for typical research projects be extended by one year, to reduce the frequency at which researchers need to apply.

To support a culture change there also needs to be consideration as to what we mean by excellence. Currently, the criteria for excellence are narrow and do not reflect the variety of outputs, profiles and experiences that comprise an academic's career. Defining what is "best" and "excellent" is difficult and goes beyond impact factors and other metric-based indicators. The language used should be considered and adopted into any training or criteria.

Finally, understanding that barriers, concerns, and scepticism exist, and are different in the various national context and scientific areas is crucial. These should be heard and taken into account to avoid replacing a faulty system by another, and to ensure the new system fits the needs of the research community. Pilot and tests can be useful to prepare the change.

ADDRESSING BIASES AND INTEGRATION OF EDI PRINCIPLES

It is acknowledged that one of the key reasons for reforming the way we recognise and reward researchers is to reduce inequalities within the research ecosystem. The current use of metrics to assess research can open potential for bias and create an unlevel playing field across genders, career stages and disciplines (amongst others). Changes to the way we reward and recognise researchers seek to address these biases and create a more diverse, inclusive and fair system. However, we must be careful that we do not replace these current biases with other biases.

It is therefore important that equality, diversity and inclusion (sometimes called EDI) are considered within any changes to research assessment. For example, there is a risk that when including more vocational experience into a CV this could increase the subjectivity required to assess it. Therefore, there could be more potential for unconscious biases. Ensuring effective training is implemented for reviewers and across research funders is therefore imperative.

Finally, the reforms should ensure that they do not undo the progress made in fostering international collaboration and excellence. There is a risk that many separate and different initiatives globally could create a system that hinders mobility and collaboration. It is crucial that we see it as a cross-border movement whereby initiatives can complement one another and be recognised globally.

RECOGNITION OF A LARGER DIVERSITY OF SCIENTIFIC OUTPUT

The current predominant evaluation system for research and researchers largely uses publications-related metrics (h-index, journal impact factor, etc.). Metrics reflecting the number of publications published by a researcher, the number of citations, the venue(s) where those were published, still define the quality of research and of researchers. This system, often referred to as 'Publish or Perish' has been criticized by the research community and the momentum has grown in the past decade to change it.

Such reflection is not new. The San Francisco Declaration on Research Assessment was published in 2013. The Metric Tide (independent review of the role of metrics in research assessment and management published by Research England) was published in 2015.

In a revised system, attendants all agreed that the evaluation system should move towards a more qualitative assessment instead of quantitative considerations.

A priority of any new system is also to foster the recognition of a broader diversity of research output instead of putting the focus on publications. Other activities and outputs should be acknowledged and rewarded, such as engagement with non-research communities (civil society, policy or political bodies, etc.), open science practices, the time it takes to, run conferences, mentor younger researchers, do peer review etc. Appropriately rewarding the skill of editing and reviewing within the assessment system is an opportunity to acknowledge the time, skills and experience reviewing can offer.

Recognising the added value of all these activities in the research system is key. It will encourage a broader range of profiles in the research ecosystem, but also of types of research. Ultimately the system should invigorate a diversity of career paths.

In that framework, finding a balance between the individual and the collective is important. Research evaluation systems are disproportionately focused on individual achievements and should better recognise collaboration across disciplines, institutions or countries, contribution to collaborative projects or endeavours, strategic leadership in influencing a research agenda, etc.

EXAMPLES OF INITIATIVES DISCUSSED DURING THE EUROPEAN MEETING

Values Framework for the Organisation of Research

The Values Framework for the Organisation of Research adopted by Science Europe in 2022 is based on the observation that values underpin research culture, and influence and improve trust across all aspects of the research ecosystem. Despite this, they are often presumed and unwritten. This written set of shared values were to serve as a reference for the policies and practices implemented by Science Europe Member Organisations and as a foundation for collaboration on actions to further embed these values as part of the research

system.

The framework is a foundation for appraisal and adaptation, and can contribute to the evolution of research culture. It enables a flexible approach, accommodating a diversity of practices whilst recognising that common values underlie research processes and outcomes as well as research management and governance.

Résumé for Research and Innovation (R4RI)

The Résumé for Research and Innovation (R4RI) developed by UKRI and based on the Royal Society's Résumé for Researchers, is a Narrative CV template where researchers are invited to describe their contributions to:

The generation and flow of new ideas, hypotheses, tools or knowledge,
the R&I community,
research teams and the development of others,
broader society.

It enables researchers to describe a broad range of activities and achievements and to present their activities in a more nuanced way than a list. It will also enable equitable comparison of people who have followed diverse career paths, supporting porosity across the research and innovation system.

The R4RI was developed in collaboration with the broader research community and especially with universities.

Norwegian Career Matrix (NOR-CAM)

The Norwegian Career Matrix (NOR-CAM) is a framework for recognition and rewards in academic careers. It consists in a toolbox accommodating the full breadth of academic activities across all kinds of institutions.

In the toolbox, a matrix includes the various competences and results to assess. It also suggests which documentation to gather and the kind of reflections that should occur during the assessment process.

The NOR-CAM was designed during a collaborative process involving, funders, researchers, and research organisations. Beyond the content of the toolbox, discussions tackled how to do this change, how to implement it in institutions and research groups. One of the recommendations was for instance the development of an 'automatic CV system' that enables academics to retrieve data that can be used to document competencies and results in their own career, including applications for positions, promotions and external funding.

Coalition for Advancing Research Assessment (CoARA)

The Coalition for Advancing Research Assessment (CoARA), launched in 2022, is a global

Coalition of research funding organisations, research performing organisations, national/regional assessment authorities and agencies, as well as associations of the above organisations, learned societies and other relevant organisations.

These members will work together to enable systemic reform on the basis of common principles within an agreed timeframe, and to facilitate exchanges of information and mutual learning between all those willing to improve research assessment practices.

The Agreement on Reforming Research Assessment; that members of the Coalition have signed, includes 10 commitments and establishes a common direction for research assessment reform, while respecting organisations' autonomy.

The process of drafting an Agreement on reforming research assessment was initiated in January 2022. More than 350 organisations from over 40 countries were involved. Organisations involved included public and private research funders, universities, research centres, institutes and infrastructures, associations and alliances thereof, national and regional authorities, accreditation and evaluation agencies, learned societies and associations of researchers, and other relevant organisations, representing a broad diversity of views and perspectives.

Tools to Advance Research Assessment (TARA)

The Tools to Advance Research Assessment (TARA) is a project to facilitate the development of new policies and practices for academic career assessment. It was initiated by the DORA international initiative that derives from the San Francisco Declaration on Research Assessment.

The TARA project's main goals are to identify, understand, and make visible the criteria and standards universities use to make hiring, promotion, and tenure decisions (new policies and practices for academic career assessment). Its activities include:

the development of an interactive online dashboard to track policies, capture new and innovative policies, visualise content, data, patterns or trends, etc.
a survey of US academic institutions,
A toolkit of resources to debias committee composition and deliberative processes; and some building blocks for impact.

CLIMATE CHANGE

SUMMARY OF KEY MESSAGES

There is need for a strong, coordinated and global research effort to address climate change and its impacts. We are at a critical tipping point and continued increases to investment in research and innovation are imperative.
It is important that efforts to mitigate climate change are developed in partnership with the research and innovation community, industry and Government. The process spans

from public engagement through to the development of national policy – we need investment in social innovations as well as the technical.

There are many successful national and multilateral mechanisms that already exist to fund climate change research worldwide. The GRC should ensure it complements rather than replicates the activities of other international efforts.
One of the GRC's key features is its ability to bring together organisations from across the world in an informal setting, where actors can openly share and discuss key challenges to pertinent policy topics. This can be utilised to discuss climate change, identifying commonalities in national priorities and research agendas, sharing of good practices and initiatives and discussing solutions.
The topic of climate change links into the topic of the sustainability of research and of the research system, chosen for the 2024 Annual Meeting. This alignment should be maximised.

SPECIFIC REMARKS/ TOPICS

TRANSDISCIPLINARITY, PUBLIC ENGAGEMENT AND SCIENCE COMMUNICATION

Climate Change is a global threat that impacts all countries. A strong coordinated research effort is needed to provide the scientific basis to map alternatives and propose solutions at all levels: local, regional and global.

Research and innovation is therefore needed in many key areas, for instance those highlighted in the discussion paper (accelerating complex system transitions, reducing greenhouse gases emissions, preserving biodiversity and ecosystem, etc.)

It was noted however that a lot of research has already been done and is available regarding the cause and consequences of climate change. The work of the UN Intergovernmental Panel on Climate Change (IPCC) has been using the outcome of this research for more than 30 years to inform its work. Despite that, societies have not drastically changed their behaviour and the effect of climate change are getting stronger every year.

The importance of science communication was therefore called 'crucial' for implementing and influencing policy changes. Civil societies should be better informed of the research outcomes and of the existing knowledge regarding the cause and consequences of climate change. Science communication is an essential element in strengthening the role and contribution of science in tackling challenges such as climate change.

Moreover, engaging the citizen throughout all stages of the research process is important, and the GRC should consider and refer to the endorsed statement of principles on public engagement alongside the topic of climate change. The development of resources to synthesise knowledge and amplify key messages is important in facilitating engagement with citizens and encouraging behavioural change.

Transdisciplinarity is important for addressing climate change, both to generate solutions but also to enhance the uptake of the outputs of research. Climate change, its causes and its effects are complex multidimensional problems and a disciplinary approach will not be sufficient to properly study and address these issues. By focussing also on societal outcomes and involving sectors outside of R&I the gap for implementation becomes smaller.

When considering engagement of citizens, we must ensure we are considering diversity within this. For example, the type of citizen engagement will differ depending on location; there may be many different methods required across GRC Participant Organisations.

COORDINATION AND COOPERATION

A large number of research and innovation funding programmes already aim at understanding or finding solutions to the environmental crisis, including climate change. Such programmes are developed at national level but also at international level (bilateral, multilateral, supranational -for instance at European level-, etc.). While the GRC could do more than releasing a Statement of Principle on this issue, it should be ensured that the GRC does not replicate mechanisms that already exist.

A key feature of the GRC is its ability to bring together many actors in an informal and transparent setting. The provision of a platform for these conversations is a crucial process in addressing climate change, including the sharing of good practices and open discussion on shared challenges.

The GRC has long been a successful platform for the sharing of good practices worldwide, including the formation of case study booklets and other knowledge outputs.

The GRC's "unique selling point" is its ability to connect organisations and facilitate bilateral and multilateral conversations between its participants and guests. The GRC is able to connect national agendas and identify key issues across organisations and countries, facilitating a space for recognising and addressing common challenges. Examples such as the side events at Annual and Regional Meetings provide an opportunity for discussions to take place in an open and informal setting. Mobility schemes, but also existing bilateral or multilateral collaborations across the globe could be instrumental to create a more global dynamic, or to bring together countries facing similar challenges.

The GRC Sustainable Development Goals Pilot Call 2022 is an example of partnerships between the GRC participants which could influence future developments. It aims to accelerate the achievement of the SDGs, through the implementation of results from ongoing or recently finalised research and innovation. This pilot call is supported by 11 funding agencies spanning four continents. Some participants recommended though not to organise GRC global calls, which could be too difficult to manage.

Some key challenges were raised such as the utilisation and promotion of community-based knowledge, including how we liaise with local communities on all continents to develop nature-based solutions. The GRC could be a facilitator of bringing together these different

perspectives and experiences to ensure alternative models and solutions are taken into consideration. Regions must learn from each other. Moreover, we should focus discussions on those with live-in experience of what is required to mitigate and adapt – these are the communities that will feel the worst impacts of climate change.

The need for quicker response times was also highlighted. Many initiatives are slow and long-term, however since the Covid-19 pandemic we have seen the ability of the global research community to act rapidly. The GRC could draw on the principles of rapid response multilateral collaboration, such as in the pandemic, to apply this to climate change research and innovation.

SUSTAINABILITY OF RESEARCH AND OF THE RESEARCH SYSTEM

The GRC is in a unique position this year whereby one of the discussion topics for the following year has already been decided. The focus on sustainability of the research system for the 2024 Annual Meeting gives the potential for alignment to the 2023 meeting and the two topics should be considered alongside each other.

The GRC's climate change initiative could indicate some overarching principles that align and flow into the topic of sustainability for 2024; including sustainability of the science that GRC participants are funding but also the sustainability of GRC participant organisations themselves.

For organisations to have traction in this space we need to ensure they are role models. It is important for GRC participant organisations to lead by example, setting targets and action plans for their own carbon footprint across their estates and facilities. For example, the Irish Government recently mandated all public agencies to set up climate change working groups, focusing on both internal actions within the agency but also what their stakeholders are doing on climate change. Additionally, some GRC participants are now limiting the use of planes for their trips. It is important that GRC Participant Organisations not only hold themselves accountable but also who they work and collaborate with.

EXAMPLES OF INITIATIVES DISCUSSED DURING THE EUROPEAN MEETING

Sweden Climate Policy Framework

The Sweden's climate policy framework sets out implementation of the Paris Agreement in Sweden. By 2045, Sweden is to have zero net emissions of greenhouse gases into the atmosphere. Four levels of green transformation are considered crucial:

Techno scientific
Market (but we cannot leave it to markets and private actors to steer the evolution)
Government
Citizens

Research and innovation is needed at all these levels, but leadership of state actors, and engagement with businesses, municipalities, and citizens are also key. Policies and steering mechanisms are needed to ensure transformation. Research and innovation must guide these policies (for instance Identification of the most emitting sectors to identify solutions). The difficulty to steer transition was highlighted though. Despite its high incomes, its high level of welfare, and a high public legitimacy and support for climate policy, Sweden is struggling to reach its targets.

European Commission

The European Union strategy to address climate change is an example of collective effort. The EU target is a to cut greenhouse gas emissions by at least 55% by 2030 and to becoming climate neutral by 2050. To this end, The EU needs to increase the R&I investments and accelerate the deployment of solutions. Accordingly, over 35% of the Horizon Europe budget must be earmarked on projects that will contribute to the climate objectives. The budget is spent through several instruments that boost research, innovation, and societal developments. Most of the technologies that we need (for instance in transport, circular economy, or energy production and distribution) are not market ready yet and a lot of efforts are still needed.

The European Commission will also promote and propose collaboration on non-rival developments with all countries around the world.

UKRI Building a Green Future

'Building a Green Future' is one of the five strategic themes in UKRI's five-year strategy. This initiative will contribute to achieving the goals of the UK Net Zero Strategy (net zero by 2050) and the commitments taken in the various COPs. Under this priority, UKRI has clustered substantial existing programmes and investment plans to tackle environmental, technological and social issues. It also intends to leverage funding through (international) collaboration and more specifically through partnerships with business, with the Government and with international partners.

UKRI acknowledged the need to amplify the impact of research and innovation programmes at national level. To this end, resources have been earmarked to topics such as measuring of UK emissions, development of more efficient renewable energy, etc. Transdisciplinary research is a key component of the initiative

Funding agencies also need to look at what they do, beyond the funding activity and also reach net zero across their own estates, facilities, and activities (eradicating single use material, Net zero for greenhouse gas emissions, etc.). UKRI intends to lead by example by achieving net zero across their own estate and infrastructure by 2040.

Latvia MissionSEA2030

In the last years, Latvia and the Latvian Council of Science (LZP) have initiated reforms and new

programmes have been developed to better protect or restore the environment.

The Latvian programme 'missionSEA2030' and its call to action aim to respond to the dramatic situation of the Baltic sea. Currently, more than 97% of the Baltic sea suffers from eutrophication, an excess of nutrients, as a result of which the Baltic seabed is the largest "dead zone" in the world. The overall goal of the mission is to address the issues of climate change, pollution, regeneration of ecosystems, and the circular economy. This will be attained by creating environment for rapid innovations supported by legal instruments. A diversity of instruments and projects have been put in place. Private equity funding, EU funding and national public funding are combined to fund research projects and but also start-ups in the field of green innovation. A digital twin of the Baltic sea will also be developed.

Annex: Programme

DAY 1 – 12 December 2022	
Time (GMT)	**Item**
12.00 – 12.45	**Lunch Reception**
12.45 –13.20	**Opening and Welcome by the co-hosts** Professor Dame Ottoline Leyser, Chief Executive Officer of UKRI Dr. Marc Schiltz, President of Science Europe, Secretary General of the National Research Fund of Luxembourg (FNR) Prof. Mark Thomson, Executive Chair of the Science and Technology Facilities Council (STFC) Prof. Katja Becker, Chair of the GRC Governing Board, President of the German Research Foundation (DFG)
13.20 – 13.45	**GRC Executive Secretary Report** Prof. Euclides de Mesquita Neto, Executive Secretary of the GRC, São Paulo Research Foundation (FAPESP) **TOPIC 1: Innovations in recognising and rewarding researchers** Moderator: Prof. Christopher Smith, Executive Chair of Arts and Humanities Research Council (AHRC) and UKRI International Champion
13.45 – 14.00	**Presentation of the GRC discussion paper** Robbert Hoogstraat, Senior Policy Officer and Project Leader for Rewards & Recognition at the Dutch Research Council (NWO)
14.00 – 14.30	**Keynote speech: Setting the scene and inspiration for the discussion** Dr. Marc Schiltz, President of Science Europe, Secretary General of the National Research Fund of Luxembourg (FNR) *The Agreement on Reforming Research Assessment, and the Coalition for Advancing Research Assessment (COARA)*

14.30 – 15.15	**Presentation of case study examples** Ragnar Lie, Senior adviser at Universities Norway *The Norwegian Career Assessment Matrix (NORCAM)* Professor Dame Ottoline Leyser, Chief Executive Officer of UKRI *Résumé for Research and Innovation (R4RI)* Dr. Haley Hazlett, Acting Program Director for DORA, Declaration on Research Assessment *The TARA project (Tools to Advance Research Assessment)*
15.15 – 15.30	**Break**
15.30 – 16.15	**Breakout discussions**
16.15 – 16.45	**Reporting from the breakout groups and plenary dialogue with participants**
16.45	**Close Day 1**
16.45 – 17.45	**Tours of Campus Facilities – Multiple groups will be organized**
19.00 – 22.00	**Dinner Reception**

DAY 2 – 13 December 2022	
Time (GMT)	**Item**
09.00 – 09.15	Welcome by the hosts **TOPIC 2: The responsibilities and opportunities of research funders in addressing climate change** Moderator: Dr. Lidia Borrell-Damian, Secretary General of Science Europe
09.15 – 09.30	**Presentation of the GRC discussion paper** Prof. Paulo Artaxo, Universidade de São Paulo (USP). on behalf of the São Paulo Research Foundation (FAPESP)
09.30– 10.00	**Keynote speech: Setting the scene and inspiration for the discussion** Prof. Karin Bäckstrand, Professor of Environmental Social Science at Stockholm University, Former Member of the Climate Policy Council in Sweden (2018-22)

10.00 – 10.45	**Panel discussion** Representative of the European Commission *The UE collaborative initiatives on climate change* Dr. Kate Hamer, Natural Environment Research Council, UKRI *UKRI's Building a Greener Future* Dr. Lauma Muižniece, Director of the Latvian Council of Science (LZP) *The Latvian programmes to address climate change and perspectives towards joint GRC actions*
10. 45 – 11.00	**Break**
11.00 – 11.45	**Breakout discussions**
11.45 – 12.15	**Reporting from the breakout groups and plenary dialogue with participants**
12.15 – 12.45	**Consolidation of European key messages to feed into GRC 2022 development**
12.45 – 14.00	**Lunch**
14.00 – 15.00	**Update from the GRC Working Groups and discussions** Adrien Braem, Co-Chair of the GRC Gender Working Group, Science Europe Dr. Catriona Firth, Co-Chair of the GRC Responsible Research Assessment Working Group, UKRI
15.00 – 15.30	**Multilateral Collaboration Session** Dr. Kristin Danielsen, Acting Executive Director – Internationalisation and the research system, Research Council of Norway
15.30 – 16.00	**Closing Remarks**
16.00	**Close Europe Regional Meeting 2022**

GLOBAL RESEARCH COUNCIL

Mena Regional Meeting

14-15 December 2022
Muscat, Oman

Co-hosts:

أكاديمية البحث العلمي والتكنولوجي
Academy of Scientific Research & Technology

Ministry of Higher Education, Research & Innovation

Report on Middle East and North Africa Regional Meeting 2022

The Ministry of Higher Education, Research and Innovation of Oman hosted the MENA regional meeting physically in Muscat on the 14th and 15th of Dec 2022, The Venue of the meeting was Oman Convention and Exhibition Center. The meeting was co-hosted by the Academy of Scientific Research & Technology of Egypt. The 9th Annual Research Forum was the side event to the meeting. Six countries from the MENA Region participated in the meeting. Oman, Egypt, Saudi Arabia, Qatar and Jordan participated physically in the meeting; whereas Kuwait participated virtually.

The discussions in this regional meeting focused on the two research topics proposed by the GRC: "Rewards and Recognition" and "Towards Climate Change Initiative". The draft discussion papers on the two topics and the agenda of the meeting were circulated to all potential participants prior to the meeting.

MENA Regional Meeting Highlights:

The discussions in the first day of the meeting focused on Rewards and Recognition while the subject of Climate Change was discussed on the second day of the meeting. The reports on the Gender Working Group and the Responsible Research Assessment Working Group were also presented on the first day of the meeting. The meeting agenda is provided in Appendix A. In total, 28 attendees participated in this regional meeting, including 3 keynote speakers. The full list of the attendees is given in Appendix B.

Welcoming Remarks:

The Minister of Higher Education, Research and Innovation of Oman H.E. Prof. Rahma Al Mahrooqi, ASRT President, H.E. Prof. Mahmoud Sakr, and the President of King Abdulaziz City for Science and Technology (KACST) of Saudi Arabia, GRC GoB Vice Chair H.E. Dr. Munir Eldesouki, gave welcoming keynote remarks.

HE Dr. Rahma started her speech by welcoming the participants to this GRC-MENA Regional meeting and thanked all of them for taking the time to participate in this important meeting. Then HE talked about The Global Research Council and how important it is in promoting the sharing of data and best practices, through establishing continuous and proactive collaboration among international funders. And that such cooperation can enhance the quality of science, boost national economies, and address issues that can only be solved by working together.

With both climate change and research assessment and awards being important topics, HE briefed the participants on what Oman's done so far in this regard. She mentioned that the country has several initiatives and devised strategies to mitigate the impact of climate change such as the following:

In October 2022, Oman announced its commitment to achieve net zero emissions by 2050.

In 2019 the Ministers' Cabinet has endorsed the Oman National Strategy for Adaptation and Mitigation 2020-2040

- Oman officially submitted the following documents to the United Nations Framework Convention on Climate Change (UNFCCC):
- Two Nationally Determined Contribution (NDC) reports (the second NDC set a reduction target of Green House Gasses to 7% by 2030).
- Two National Communication (NCs) reports.
- One Biennial Update Report (BUR).
- Agricultural smart crops project (FAO), which had already started few months ago.
- Low carbon transportation strategy.
- Third NC and first National Adaptation Plan (NAP) are under process.
- First Biennial Transparency Report (BTR) is under process.

And with regards to how research is assessed in Oman, HE pointed out the continuous refinement of the national funding programs to reflect both the diversity and the inclusivity. HE concluded her speech by stating the need to enhance the assessment of research activities and programs and to adopt methods that will improve the research ecosystem, establish a balance between the individual and the collective, focus on quality, stimulate open science, and encourage high-quality research leadership.

HE Dr. Munir began his speech by acknowledging the host and the cohosts of this regional meeting. He further emphasized the significance of this meeting and its timely discussion topics:

HE mentioned that the region faces numerous challenges that hinder the ability to realize the full potential in the global landscape of RDI. This is reflected by the low regional expenditure on R&D, which accounts for only about 2.2% of the global R&D spending!

Furthermore, it is noted that despite few rising stars, MENA lags behind other regions in the Global Innovation Index, which in turn has an impact on the economic progress.

Empirical evidence shows that a 1% increase in R&D spending can boost economic growth by 2%. On a positive note, many countries in the region have launched strategies and programs to enhance their national innovation systems and address institutional gaps.

As a Vice-Chair and a governing board member representing the MENA region in the GRC council, HE said that he would like to have a greater involvement and contribution of the regional research councils in the GRC's activities and its vision for the next ten years. In this regard, HE suggested the need to develop an inclusive action plan to:

- Activate the role of the regional research councils in contributing significantly to the achievement of the GRC's vision and roadmap
- Showcase lessons and success stories of the regional RDI sector and its pivotal roles in future regional development.
- Seek to achieve the interests of the region and to maximize its presence, value, and impact in future GRC activities.
- Explore the potential bilateral and multilateral collaboration opportunities among regional research councils from one side, and with international research councils from the other side to create the conditions in which regional and international research cooperation and collaboration can thrive.
- Explore the potential mechanisms to share experiences and best practices in engaging and communicating with our societies and the public; so that RDI outputs will be valued and trusted by our societies.

To transform the above objectives into an agreed actionable plan, HE concluded his speech by inviting participants to attend a high-level regional meeting in Riyadh, in early Feb 2023.

HE Prof. Sakr started his speech by thanking all participants from the region and beyond. A brief overview was then provided about the COP27 summit and about ASRT contribution to the summit.

His Excellency provided an overview of The Academy of Scientific Research and Technology, as the national think tank in the field of Science, Technology, and Innovation. The Academy brings together outstanding Egyptian scientists and experts from universities, research institutions, private sector, NGOs, policymakers, and prominent Egyptian scientists in Diaspora to deliberate country problems, propose and carry out scientific studies, and future strategic plans to tackle problems and issues of interest. The Academy allocates necessary national funds for carrying out open science policies and strategies, enabling active networking and providing set of research support central core facilities and services.

Prof. Sakr mentioned that the Academy actively contributes to the creation of a supportive environment for scientific research and education, through a set of initiatives that support Open Science and dissemination of scientific culture.

Introduction to the GRC and regional meeting expectations:

An executive report of GRC was presented by GRC Executive Secretary Prof. Euclides de Mesquita Neto where it was indicated that the main mission of the GRC is to work in partnership to create the conditions in which international research cooperation and collaboration can thrive. Furthermore, the benefits and purpose of holding the regional meeting as an opportunity for networking and learning from each other was explained in addition to briefly touching on ways to move forward.

Session one: Rewards and Recognition

The Global Research Council supports the growing efforts in which funders, universities and other organizations move towards new and innovative methods to accomplish a more responsible research assessment tool. As the efforts keep going and the movement keeps growing, it will be important to ensure that all regional and global funders are involved, each in his own way. The GRC will offer all support needed to the advancement of this movement.

In line with the above, a discussion paper was presented virtually by Robbert Hoogstraat, Project Leader Rewards & Recognition from NOW (The Netherlands). The presenter highlighted the main issues that need to be addressed to have an effective system for recognizing and rewarding researchers. This included the need for diversification of career path, the need to assess the team rather than an individual, the need to focus on quality and to stimulate open science.

The following set of questions, were presented by Robbert Hoogstraat, for a more elaborate discussion on the draft paper:

1. What are the specific responsibilities of funders in contributing to the R&R change?
2. What can be done to overcome existing barriers to the evolution of R&R mechanisms?
3. What can GRC participants learn/share from innovative mechanisms to reward and recognize researchers?
4. How can funders motivate institutions to implement these new ways of rewarding and recognizing researchers?
5. How can funders facilitate panel members and reviewers to follow these changes and alleviate?

6. How can local and national context be considered in this global initiative? In other words: how can the overall system stay flexible enough to facilitate local differences but ensure we do still move in the same direction?

The GRC MENA region meeting participants shared their emphasis on assessing research output whilst considering the six questions given in the Rewards and recognition discussion paper, the main highlights from the participants' contributions were as follows:

- Researchers' recognition is an integral part of grant award process.
- Peer review process of research evaluation should encompass several elements related to both qualitative and quantitative researcher's profile including academic qualifications, career progression, scientific appreciation, and social and economic impacts of the research.
- Evaluation process should consider the ability of the research to support capacity building, dissemination of knowledge and diversification.
- Moving away from the old norms of rewards and recognition to a new and more wholesome approach including the evaluation of researchers and proposals by funding agencies, as well as, appraisal and promotion system by the research entities.
- Trans-disciplinary and multiplayers projects (i.e. projects built up of multiple diverse entities including universities, research centers, civil society institutions, the private sector, national industry and even end users) in the respective fields should be encouraged and supported.
- Evaluation panels should be composed of un-biased research experts, peers, funders, and stakeholders who have varied background.
- Inter-panel discussions and panel-researcher discussions are key elements of the evaluation process and should be used to assess the actual research impact fairly and deeply.
- Regional and international collaborations are important on both the research level and the evaluation level.
- Early career researchers would benefit from programs providing mentorship and networking with experienced researchers.
- Recognizing early career researchers is an efficient tool for developing their early research leadership skills.
- Supporting the inclusion of women in research through dedicated funds and awards to get over social challenges and family/maternity associated delays.
- Internship and mentorship programs are essential to support female researchers going back to research track after career interruption.
- Open resources help researchers overcome knowledge barrier.
- Awareness with the GRC movement and the input of funding organizations towards it should be raised within the research eco-system and Academia.

Gender Working Group (GWG) Report

Some background on the establishment of the group was presented together with the actions pursued by the group with respect to the work plan approved at the annual meeting in 2019.

The group report was presented by Dr. Maryam Al Nabhani from the Sultanate of Oman and member of the GRC gender working group. The presenter started by briefly touching on the past activities of the group in accordance with the work plan. Activities included:

- Issue of Booklet on Policies, Programs, and Initiatives Undertaken by GRC Funding Agencies to support women in research
- Survey on gender disaggregated data among GRC participating organizations
- Report Gender-Disaggregated Data at the Participating Organizations of the Global Research Council:
- GRC GWG measures to address Covid-19 effects on researchers from an EDI perspective : statement and resources
- GRC GWG EDI Workshop Series

Dr. Maryam mentioned that the group is guided by the following:

- Harnessing a diversity of talent and ideas, while recognizing that the equality and status of women in research should be considered together with broader equality and diversity issues.
- To contribute to position the GRC as a leading voice on the promotion of equality, diversity, and inclusivity.

And as such, it is of critical importance to:

- Move beyond gender to support diversity via the participation of other underrepresented and equity-seeking groups.
- Strengthen the representation of the group within the regions.
- Focus on advocacy and advancing specific actions as relevant in the regions; and to advance experience sharing on the capacity strengthening areas identified as requiring action.
- Support individual funding agencies that request assistance.
- Continue partnerships with like-minded organizations and initiatives.
- Integrate discussions on equity, diversity, and inclusivity within the annual thematic areas.

With the above in mind, Dr. Maryam pointed out that EDI workshop series were conducted to improve communication and cooperation among funding agencies as well for the promotion of sharing of data and best practices. Examples of these workshops include the recent workshop on "Supporting the advancement of careers in research from an Equality, Diversity and Inclusion perspective" (Nov. 2022) and the workshop on EDI in research careers.

Dr. Maryam then provided a reflection on some of the main points that arise from these two workshops and can be summarized as follows:

- Individual actions, such as implementing narrative CVs or bias training are helpful but should be part of an overall change in research culture.
- Narrative CVs are susceptible to bias and need to be designed and implemented with EDI in mind.
- Data collection is still a challenge – both legal limitation and self-identification concerns.
- Supporting some mobility costs – such as family related costs – can help address inequality in mobility.
- Allowing career "breaks" or supporting part-time work can also be useful.
- Long-term funding targeted at specific discriminated groups is a possibility.

The presentation was ended by suggesting three topics to be the subject for future workshops namely; Violence in research (gender-based violence, bullying, and harassment), EDI dimension in research priorities and content and the EDI related data collection and analysis.

Responsible Research Assessment (RRA) Working Group Report

RRA was explained by highlighting some of the deficiencies of the conventional research assessment approaches and that the RRA aims to alleviate the shortfalls and focuses more on current principles that support equity, diversity, and inclusion.
In line with this subject, Prof. Mohammed Al-Shamsi (Co-Chair of the RRA Group), presented a report on the Group activities. The presenter highlighted the main issues that need to be further analyzed and examined.

Prof. Mohammed started his presentation by giving a brief background on the approval of the establishment of the RRA working group in the GRC's 2021 annual meeting and the progress on the working group activities including the first meeting on 22nd Sep 2021 were mentioned. The goals of the RRA are:

- To advocate for the importance of RRA; and
- To provide guidance and support to participant organizations on embedding RRA in their practices, as well as in the organizations they fund.

Seventeen Organizations are represented within the group, across all 5 regions of the GRC (Americas 4, Asia- Pacific 2, Europe 6, Middle East and North Africa 2 and Sub-Saharan Africa 3).

The presenter explained the concept of the RRA by highlighting some of the deficiencies of the conventional research assessment approaches and that the RRA aims to alleviate the shortfalls by carrying initiatives that help research institutions to have equity, diversity, and inclusion embedded into their practices. And for this, it is important to have a clear answer on what ''quality research'' or ''good researcher" means and how to value/assess it through a fair yet agreeable criteria by funding agencies.

The presenter pointed out that quantitative measures such as citations, journal impact factors, h-indices, and others – have no end and that they can be used to try to assess the quality and wider impacts of research. But how robust and reliable are such metrics, and to what extent should they be considered in the future management of research systems?

In fact, the misapplications of narrow criteria and indicators causes a systemic bias against those who do not meet the narrow criteria and indicators particularly to young researchers. Thus, there is a clear need to drive research improvement through ensuring that researchers are explicitly recognized and rewarded for behaviors that strengthen research integrity.

To address this issue, several initiatives & movements have been launched since 2012. These include the following:

- San Francisco Declaration on Research Assessment (DORA),
- Leiden Manifesto,
- Metric Tide,
- Hong Kong Principles,
- Science Europe's advice,
- INORMs SCOPE,
- Latin American Forum for Research Assessment,
- Plan S,

The INORMS Research Evaluation Group (REG), was established in 2018. It developed a framework to help organizations to evaluate "rankings" their matrices to hire, promote, and tenure scientists. The framework is built around 6 principles as listed below:

- Contributing to societal needs is an important goal of scholarship.
- Assessing faculty should be based on responsible indicators that reflect more fully the contribution to the scientific enterprise
- We should reward publishing and/or reporting of all research completely and transparently regardless of the results
- The culture of Open Research needs to be rewarded
- It is important to fund research that can provide an evidence base to inform optimal ways to assess science and faculty
- Funding out-of-the-box ideas needs to be valued in promotion and tenure decisions

With no unanimity of "what good research/researcher is" or "good research organization", the RRA will continue its efforts for the next 4-years to raise awareness and find/share the best practices available within participant organizations.

Session on: Multilateral Collaboration work stream

Dr. Marcus Wilms (International Affairs Africa, Near and Middle East Deutsche Forschungsgemeinschaft, DFG), delivered a presentation that aimed at discussing Multilateral funding for research, highlighting the main challenges and the role of the GRC in tackling them. He noted that the pandemic demonstrated that funding is still fragmented and dispersed and as such, a better preparation should be made before next crises. The main challenges are in facilitating large-scale multilateral cooperation, either as funding/what to fund or Legal restrictions / IP agreement.

In this regard, the GRC can play a significant role in fostering collaboration among funders, taking into consideration making best use of the crowd of funders who are close to national research communities and political decision makers, and their accumulated local knowledge. It is worth mentioning that the GRC step up carefully to new roles that reinforce the following:

- Avoid competition with national funding
- Avoid duplicating available mechanisms
- Should not be a funder itself but rather a network of and framework for funders?

With the above in mind, it is also important to continue discussions on how to foster multilateral collaboration in other places and learn from existing initiatives and networks such as e-ASIA Joint Research Program, Belmont Forum, and Weave (Europe)

Session two: Towards a Climate Change Initiative

Climate change is affecting every village in every country on every continent. Weather patterns are changing, sea levels are rising, and weather events are disrupting national economies and affecting lives.

Although greenhouse gas emissions dropped to about 6 per cent in 2020 due to travel bans and economic slowdowns resulting from the COVID-19 pandemic, unfortunately, this is only temporary. Climate change is not paused, and the world is not yet saved. Once the global economy begins to recover from the pandemic, the situation will continue to deteriorate.

Saving lives and livelihoods requires urgent action to address both the pandemic and the climate change effects. Universally, as a key and essential driver of accomplishing this and meeting the Sustainable Development Goals (SDGs), Science, Technology, and Innovation (STI) are recognized as fundamental ingredients.

Scientific knowledge that spans across multiple disciplines can contribute to devising and shaping new public policies. The Global Research Council (GRC) is well positioned to play a central role in providing society with critical information and strategies to build resilience against climate change and a new sustainable society. The GRC can further contribute to promoting projects and case studies that engage communities, businesses, and policymakers in climate-related research. Furthermore, it can assist in building the capacity of regional research entities to enhance their contribution to climate-related research.

Climate Change and solutions do in fact fall very close to the objectives that the Global Research Council has set: "Actively facilitate and promote bilateral and multilateral collaboration between participant organizations to support the global science enterprise and the worldwide research community and address global challenges."

Prof. Jean Ometto from the State of So Paulo Research Foundation (FAPESP) presented the discussion paper on climate change. He suggested that GRC could interact with international bodies such as IPCC, UNEP, WHO, and others to discuss ways to implement their research needs and priorities. The funders can undertake several possible actions to develop a local, regional, or global research plan to address climate change (for instance: developing research priorities, working on better interaction with politicians and policymakers, and research in supporting changes at the societal level, etc.).

Prof. Jean Ometto explained the latest Intergovernmental Panel on Climate Change (IPCC – AR6) Report explicitly states that we already have the technology and measures to reduce

emissions by 50% in 2030. Prof. Ometto mentioned that public policies are way behind this target, and interdisciplinary research could help moving forward with the implementation of policies to achieve targeted emissions reduction. Other strategies to deal with the complexities of climate change still need to be developed that include but not limited to the following:

- Accelerating complex system transitions
- Strategies for reducing greenhouse gases emissions
- Preserving biodiversity and ecosystem services
- Climate change and health
- Tropical deforestation and the challenge of food production with a changing climate
- Urbanization and the changing climate
- The economics of climate change and its impacts on development

The possible priority topics to be worked on could include smart transport in cities, clean energy, energy efficiency in the industry, sustainable cities, green agriculture, circular economy models, zero tropical deforestation, ecological restoration, reforestation and afforestation, and other topics that could be of interest from funders.

The GRC MENA regional meeting participants shared their institutional efforts to help achieve the SDGs and support society combating climate change challenges and help to build a more resilient and sustainable society. Session highlight:

- The urgency to effectively address the impacts and challenges of climate change in a way that contributes to improving people's quality of life, achieving sustainable development, sustainable economic growth, and preserving natural resources and ecosystems
- That RDI is a cornerstone in addressing Climate Change
- The need to enhance scientific research, technology transfer, knowledge, and public awareness for combating climate change and maximizing energy efficiency
- The need to address observation gaps to improve understanding of climate change, climate- related risks, and early warning systems.
- The need to be aware of non-return points where no longer actions will help with the problem.
- Strong coordinated research is needed to:

1. Raise Awareness
2. Enhance policies
3. Address challenges and propose evidence-based solutions
4. Provide timely and accurate data to support monitoring and decision-making at the national and international levels
5. Build Capacity in this critical area

6. Form networks and focused efforts
7. Strengthen the dialogue between science and decision making

- The significance of collaboration with policy makers and strategic stakeholders to identify research priority areas.
- Priority actions should be those that bring climate resilience
- Establishing regional climate observing systems for enhancing the ability for providing useful climate information for mitigation and adaptation, including early warning systems for extreme weather events is needed.
- Establishing open data-sharing and accessible data products are significantly important.
- The need for exploring mechanisms that assist research entities in getting sufficient, sustainable, and predictable fund designated to climate-related research.
- Use of platforms such as regional GRC meetings to identify regional research priorities.
- Importance of transdisciplinary programs to address climate change (different areas and different stakeholders)
- The need for developing regional and international green funding mechanisms.
- The important role played by national and international networks in climate change adaptation and mitigation.
- The need for mobilizing the regional and international science resources considering the current multiple and complex crisis.
- The critical role played by Higher Education Institutions in preparing society to adapt to the impacts of climate disruption by providing research and education around adaptation strategies and science.
- That kids' education and the mindset transformation of the new generation is a main driver for combating climate change impacts
- The need to redesign our strategies to achieve SDGs goals under multiple crises including climate changes, geopolitical conflicts, economic crises, energy crises, pandemics, … etc. where rising atmospheric CO2 will profoundly affect the effective implementation of SDGs
- The importance of reinforcing Science Diplomacy, and Science Communications.
- Special focus should be given to voluntary lowering of CO2 emission in the Agribusiness sector and incentivizing small farmers.
- The importance of sharing success stories among MENA region countries and opening windows for collaboration.
- The role the GRC can play in this global issue, leveraging on its global presence and the diversity of talents it owns
- It's time to consolidate efforts, engage the young generation and have a broader vision on this important topic that shapes the future of the humanity. No time for digging deep into the reasons behind the problem and blame each other but it's time to find out

of the box solutions to save a world that we all share. Bilateral and multilateral collaborations and cofounding for nature conservation could be effective solutions as well.

- It's important to analyze our climate change major problems like food security from a broader perspective that includes not only direct influencers but indirect ones as well.

Closed Meeting between Regional Participants

A closed meeting was held between the HORCS and representatives of the Regional Research Organizations to discuss some timely regional issues. The following have been agreed upon:

- The participants have unanimously agreed to the continuity of HE Dr. Munir Eldesouki as the representative of the MENA region in the GoB of the GRC for the next three years.
- Qatar Research, Development and Innovation Council was thanked by the participants for offering to host the next regional meeting in 2023. Qatar will go through the formal application process to host the next regional meeting.

Appendix A: Meeting Agenda
Wednesday, 14th December 2022 GRC- MENA Regional Meeting

08:30 - 09:00	Registration
09:00-11:00	The 9th Annual Research Forum of Oman (Side Event)
11:00-11:15	**Coffee Break**
11:15 - 11:45	Welcome Note: **H.E. Professor Rahma Al Mahrooqi, Minister of Higher Education, Research & Innovation (MoHERI), Oman** **HE Professor Mahmoud Sakr, President of the Academy of Scientific Research & Technology (ASRT), Egypt** **HE Dr. Munir Eldesouki – President of King Abdulaziz City for Science and Technology (KACST), Saudi Arabia , GRC GoB Vice Chair**
11:45- 11:55	Participant's Introduction
11:55 - 12:05	GRC Executive Secretary Report **Prof Euclides de Mesquita Neto, GRC Executive Secretary**
12:05 - 12:45	**Topic 1 :** Rewards and Recognition Introduction and Background Paper **Keynote Speaker (Virtual): Robbert Hoogstraat, Project leader Rewards & Recognition, Senior programme/policy officer, NOW, The Netherlands**
12:45 - 14:15	Moderated Discussion among all Meeting Delegates of Topic 1 **Moderator**: Dr. Obaid Al Saeedi, MoHERI, Oman Speakers:

	Prof. Maha Khayyat, Semiconductor' Physics Professor, KACST, Saudi Arabia Dr. Essam Omar, Senior Scientific Advisor, Kuwait Foundation for the Advancement of Sciences (KFAS), Kuwait Dr. Sadim Jawhar, RDI Program Manager, Qatar National Research Fund (QNRF), Division of Qatar Research, Development and Innovation Council, Qatar Prof. Gina El-Feky, Acting Vice President, Academy of Scientific Research and Technology (ASRT), Egypt Dr. Salah Al Zadjali, Director General of Programs and Capacity Building, MoHERI, Oman
14:15 - 15:15	**Lunch Break**
15:15 - 15:45	Gender Working Group Report **Speakers: Dr. Maryam Al Nabhani, Director General of Private Universities and Colleges, MoHERI, Oman.** **Member of the Gender Working Group, GRC.**
15:45 - 16:15	Responsible Research Assessment Working Group Report **Speaker: Professor Mohammed Ahmad SAl-Shamsi, Professor and Deputy GM, KACST, Saudi Arabia and Co-Chair of the RRA Working Group, GRC.**
16:15 - 16:30	Wrap-up and Teaser for Day 2 **Moderator: Dr. Obaid Al Saeedi, MoHERI, Oman**
19:30	**Dinner**

Thursday, 15th December 2022 GRC- MENA Regional Meeting

08:30-09:00	Compiling the MENA Regional input and feedback on the Rewards and Recognition Discussion Paper. **Speaker: Prof.Gina El Feky, Acting Vice-President, Academy of Scientific Research and Technology (ASRT), Egypt**
09:00 - 09:40	**Topic 2**: Towards a Climate Change Initiative, Introduction and Background Paper **Speaker:** Prof. Jean Ometto, **The State of São Paulo Research Foundation (FAPESP)**
09:40 - 11:10	Moderated Discussion among all Meeting Delegates of Topic 2 **Moderator**: Prof. Gina El-Feky, Acting Vice President, Academy of Scientific Research and Technology (ASRT), Egypt Speakers: HE Professor Mahmoud Sakr, President of the Academy of Scientific Research & Technology (ASRT), Egypt Dr. Sadim Jawhar, RDI Program Manager, Qatar National Research Fund (QNRF), Division of Qatar Research, Development and Innovation Council ,Qatar Dr. Essam Omar, Kuwait Foundation for the Advancement of Sciences (KFAS), Kuwait Prof. Bader Al Harbi, General Manager of the Institute of Environmental Protection Technologies, KACST, Saudi Arabia Dr. Said Al Sarmi, Scientific Researcher, Center for Environmental Studies and Research, Sultan Qaboos University, Oman
11:10 - 11:30	**Coffee Break**
11:30-12:00	Multilateral Collaboration work stream **Speakers: Dr. Marcus Wilms, International Affairs Africa, Near and Middle East Deutsche Forschungsgemeinschaft (DFG)** **German Research Foundation** **AND** **Prof Euclides de Mesquita Neto, GRC Executive Secretary**
12:00 - 12:30	Compiling the MENA Regional input and feedback on the Towards a Climate Change Initiative Discussion Paper. **Speaker: Dr. Idrees Al Rahbi, Advisor, the MoHERI, Oman**

12:30 - 12:45	**Closing Remarks from Host and Co-Host**
12:45 - 13:45	**Lunch**

GLOBAL RESEARCH COUNCIL

Sub Saharan Africa Regional Meeting

6 December 2022
Cape Town, South Africa

Co-hosts:

National Research Foundation

Report on Sub-Saharan Africa Regional Meeting 2022

Summary

1. Introduction

This report summarises the inputs provided by presenters and delegates at the Global Research Council (GRC) Sub-Saharan Africa Regional Council Meeting on the two themes, Rewards and Recognition and Towards a Global Research Council – Climate Change Initiative. Held at the Cape Town International Convention Centre on 6 December 2022, this meeting was hosted by the National Research Foundation (NRF) in South Africa and attended by Heads of Research Councils from 22 sub- Saharan African countries.

This regional meeting was aligned with the GRC objectives – particularly those to enhance understandings of the role of the GRC and its relevance to funding agencies, and to increase the visibility of its work amongst its participant organisations, other international organisations as well as the international research and innovation community. The meeting was also designed to provide opportunities to discuss the two discussion papers– Rewards and Recognition and the Climate Change Initiative.

Further, the meeting advanced several additional objectives as indicated below:

1. Updates from the GRC Working Groups: the gender working group and the responsible research assessment working group presented updates to their work. The SSA delegates supported the work of the two groups, and they were encouraged to participate more in the work of these groups as a way of networking and supporting the GRC objectives. In addition, several councils indicated the interest in working on developing a potential working group on multilateral collaboration.

2. Launch of the report titled 'Politics and Policy in Knowledge Production for Development': This new report under auspices of the Science Granting Councils Initiative in Sub-Saharan Africa was launched. The study examined the research activities of the SGCs in relation to their alignment to the national priorities/ plans and the usefulness or translation of research outcomes/ knowledge production into tangible products capable of improving the wellbeing of citizens in the individual states. It offers practical recommendations for strengthening research and development in Africa.

3. Closed meeting of African Heads of Research Councils (AHORCs): A tradition in the SSA region, this meeting provided the opportunity to select the next host of the

regional meeting. By consensus, the National Research Fund (Kenya) will host the next meeting.

The remainder of this report gives particular attention to the delegates' perspectives on these topics. The programme is attached as an annex.

2. Rewards and Recognition

The keynote address was delivered by Professor Funmi Olonisakin, Vice President, Global Engagement and Professor of Security, Leadership and Development, Kings College, UK and SGCI Panel of Advisors. Professor Olonisakin's keynote address highlighted the role that funding councils might play in ensuring that high-quality, impactful research is conducted. The following aspects from the keynote address were echoed during the discussions and accepted as key components of the summary from this reginal meeting:

- Research councils and universities need to work together in ensuring that research has a collective purpose by incentivising researchers and their universities, setting guidelines for the design and outcomes of projects and "being bold about the terms of engagement".

- While universities value their autonomy, academic freedom, and positions as research-intensive institutions, they also take seriously their role in having a wider impact on society and its challenges. In balancing the individual benefits of research with the societal benefits, previously entrenched university cultures need to shift through, for example, the promotion of "research- intensive teaching" and through the provision of authentic researcher development programmes that give attention to varied audiences beyond the researchers' academic peers and their narrow research ecosystems. Funding agencies are viewed as being able to catalyse this shift in how they frame rewards and recognition policies.

- Research councils can work with universities to promote gender equality in certain disciplines and to shape academic leadership.

- In addition to these, the following aspects from the paper were supported by the SSA delegates:

- The importance of shifting from individual researcher to team researcher assessments as a way of recognising from an ecosystem perspective.

- On-going dialogue amongst funding agencies and their stakeholders will serve to

foster the development of rigorous framework for rewards and recognition and ensure that new and innovative methods for research assessments are introduced and institutionalised.

The ensuing discussion from delegates indicated that there was considerable interest by research councils in sub-Saharan African to learn more about responsible research assessment policies, practices and procedures. For example, the Research Council for Zimbabwe supported the important role of funding agencies in effecting changes in research assessment in universities, particularly in including both quantitative and qualitative criteria and so diversifying the approaches to assessing impact. It was suggested that research councils consider developing discipline-specific assessment tools. Further suggestions were that universities' quality assurance bodies be brought on board and that new sets of guidelines and methods of assessment be piloted so lessons are learned before wider implementation. Finally, a need for capacity development programmes – including those for panel members involved in the application of new assessment methods and tools was raised as an important component for success.

The discussion confirmed the following:

- The need for a regional approach to developing a common framework for more responsible assessment of research and the provision of rewards.
- The process for the development of the framework and its policies and procedures should be inclusive – with stakeholders such as the regulators of higher education institutions, particularly the quality assurance councils, and the research beneficiaries, providing input. This accords with the importance of context in the development of individual organisations' practices.

3. Towards a Global Research Council – Climate Change Initiative

The following aspects from the paper were supported by SSA delegates:

- The urgent need for a coordinated transdisciplinary approach to researching the complexities of climate change to enable the development of new policies and strategies – at international, regional and local levels – that will mitigate the negative effects increasingly being experienced around the world.
- The importance of the GRC Climate Change Initiative synergising with existing collaborative actions, regionally and globally.
- The importance of the initiative considering context and achieving social justice for vulnerable communities, especially in the Global South.
- The GRC being a vehicle through which to strengthen dialogue between scientists and

policymakers through scientific diplomacy and ensuring that the voices of the humanities and social sciences shape the initiative.

The discussion centred on areas of particular interest in climate change research, current initiatives, and further suggestions for the GRC Climate Change research agenda. While several countries in SSA have been engaged in developing their own or regional research agendas (e.g., in reducing carbon emissions, improving early warning signs, energy and biodiversity for the East African coastal system which crosses national boundaries), it was acknowledged that there is still more to be done in this area. The discission confirmed the following:

- Regional collaboration needs to be inclusive and to contextualise research priorities.
- Greater equality in the process of developing research agendas might be ensured through including women, the youth, and members of the community in these discussions. This will catalyse more engaged research communities.
- The sharing of ideas needs to be bolstered through the sharing of infrastructure and expertise. An "infrastructure mapping exercise" would assist research councils in the same region to develop a clearer picture of what might be available for use.
- Building human resources in relation to the regional expertise identified in research networks.
- A research agenda formulation and implementation process should be inclusive, leverage networks, be bolstered through effective science communication, and consider impact.