



Department for
Business, Energy
& Industrial Strategy

DEVELOPMENT OF KEY PERFORMANCE INDICATORS - ANNEXES

Official Development Assistance (ODA)
for research and innovation

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ANNEXES

Annex A: Fund examples

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Example 1. ACP–EU Programme to Strengthen Research and Innovation Capacity in ACP Countries

Programme/Fund	ACP–EU Programme to strengthen research and innovation capacity in ACP countries
Donor/s	EU/European Development Fund (EDF)
Time frame	2020–2025
Budget	Total estimated cost: EUR 68,890,000 Total amount of EDF contribution: EUR 60,000,000 This action is co-financed by potential grant beneficiaries for an indicative amount of EUR 8,890,000
Geographic focus	African, Caribbean and Pacific Countries (ACP)
Programme goals and focus	'Contribute to the improvement of ACP countries' development policies, research and innovation and technical and vocational education and training capacities' (Programme Objective 1.5)
Comparison with GCRF/Newton	Similar objective of strengthening innovations systems and policies for poverty reduction, e.g. by fostering collaboration and knowledge exchange, between EU and ACP countries, and between ACP countries themselves.
Notable KPI practice	Indicators for measuring innovation systems and outcomes

1. Programme background

The EU is providing support to improve capacities in African, Caribbean and Pacific (ACP) countries in the fields of science, technology and innovation, with the aim of contributing to sustainable development and poverty reduction. The EU-ACP partnership aims to enhance the use of science and technology as key enablers for poverty reduction, growth and socio-economic development through:

- policy development;
- adaptation of existing technologies to local conditions;

- making research results accessible to ACP users, for instance by making public web archives available.¹

Support for research activities is included in the objectives of the Africa-EU Partnership on Science, Information Society and Space. It aims to promote the participation of the African research community in EU programmes for research and technological development and to support regional research networks.

Evaluations of previous ACP–EU programmes showed the added value of the intra-ACP dimension in disseminating, exchanging and facilitating uptake of knowledge; however, they also showed that more traditional research cooperation projects, while leading to useful results, **fail to achieve a systemic and lasting impact**.

Therefore, the current, most recent ACP–EU programme action² intends to have a more structuring effect on the **innovation-ecosystems** and capabilities of ACP countries, through an integrated approach, inducing change both at policy and capacity development levels.

The programme aims to unlock the innovation potential of ACP countries and support their transition into knowledge-based economies for sustainable development and poverty reduction. It will seek to achieve the following specific objectives:

1. Foster a conducive R&I environment across the ACP countries.
2. Facilitate access to R&I knowledge, transfer and cross-fertilisation throughout the ACP countries.
3. Enhance the quality of R&I policies and systems in ACP countries.

The programme provides means to contribute mainly to target 9.5 of **SDG 9 ‘Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation’**.

2. Indicators

The following indicators were extracted from an ‘indicative logframe matrix’ in the Action Document for ACP–EU Programme to Strengthen Research and Innovation Capacity in ACP countries.³

1. Gross domestic expenditure on R&D (%GDP).

¹ EU/ACP multi-country cooperation: Research webpage, at: https://ec.europa.eu/europeaid/regions/african-caribbean-and-pacific-acp-region/acp-multi-country-cooperation/research_en (accessed 27 October 2019).

² Annex 2 of the Commission Decision on the Annual Action Programme 2018 Part 3 in favour of Intra-ACP cooperation to be financed from the 11th European Development Fund, at: <https://ec.europa.eu/transparency/regdoc/rep/3/2018/EN/C-2018-7354-F1-EN-ANNEX-2-PART-1.PDF> (accessed 27 October 2019).

³ Ibid.

2. Innovation environment: Global Competitiveness Index.
3. Technological readiness: Global Competitiveness Index.
4. ICT Development Index.
5. Employment in knowledge-intensive services (% of workforce).
6. Number of ACP countries reporting progress in R&I policies/strategies.
7. Number of information/knowledge products shared by content type and country.
8. Number of (gender-responsive) R&I policies produced/improved with support from the Policy Facility.
9. Number of R&I institutional strengthening plans/reorganisations produced, by target group.
10. IDI use sub-index (ICT Development Index).
11. Number of people benefiting from VET⁴/skills development initiatives through the programme, disaggregated by sex.
12. Total number of researchers (FTE), disaggregated by sex.
13. Number of scientific and technical journal articles (Number per billion PPP\$ GDP).
14. Level of university/industry research collaboration.
15. Total patent applications* (direct and PCT national phase entries).
16. Number of pilot projects supporting the integration of indigenous knowledge into formal systems.
17. Number of pilot projects supporting women's participation in R&I.
18. Number of pilot projects addressing environmental management or low carbon development.
19. Number of events organised by the programme for knowledge dissemination, sharing and information.
20. Number of knowledge tools developed by the programme.
21. Number of participants at knowledge sharing events organised by the programme, by type of stakeholder and sex.
22. Number of stakeholders using the information/knowledge accessed through the platform, by type and country platform, by type of stakeholders.
23. Number of requests supported through the Policy Support Facility (PSF), by country.

⁴ VET – Vocational Education and Training.

24. Number of civil servants from requesting institutions trained, disaggregated by sex.
25. Number of policy documents (e.g. number of draft laws, strategies and plans developed or drawn up as result of the PSF's inputs).
26. Number of countries with climate change strategies developed/improved with EU support.

Example 2. Danida's Building Stronger Universities – Phase II

Programme/Fund	Building Stronger Universities – Phase II
Donor/s	Danida
Time frame	2014–2016
Budget	DKK 100 million
Geographic focus	Africa and Asia
Programme goals and focus	Strengthening research capacity in LMICs
Comparison with GCRF/Newton	Similar, though narrower, focus on research capacity building in LMICs
Notable KPI practice	Institutional capacity building in LMICs

1. Programme background

The Building Stronger Universities (BSU) programme was established in 2011 as a collaboration between *Universities Denmark* (representing all Danish universities) and 11 higher education institutions in five countries (Tanzania, Ghana, Uganda, Kenya, and Nepal).⁵ It aims to strengthen the capacity of higher education institutions in the global South. The Building Stronger Universities programme, Phase II (BSU II) covers the period 1 January 2014 – 1 November 2016 and provides DKK 100 million. The second phase built upon the lessons learnt and results achieved during the first phase but the organisation and management of the programme was strengthened to enhance the ownership of Southern institutions.

In BSU II, the seven programme partners in the South were: University of Ghana (UG), Ghana; Kwame Nkrumah University of Science and Technology (KNUST), Ghana; Sokoine University of Agriculture (SUA), Tanzania; Kilimanjaro Christian Medical University College (KCMC), Tanzania; State University of Zanzibar (SUZA), Tanzania; Gulu University (GU), Uganda and Kathmandu University (KU), Nepal. With the exception of Kathmandu University, all these partners also participated in the first phase of the programme (2011–2013).

In the programme, needs and priorities identified by Southern partners in terms of developing their institutional and research capacity are addressed by matching them with Danish universities, which have the skills and capacities to meet their needs in the areas identified. Partnerships are selected through a match-making process where consortia of Danish universities are invited to express interest. In June 2013, a decision was taken to change the organisation of the programme, so BSU II – in

⁵ The Danida Fellowship Centre, The Building Stronger Universities Programme (BSU), at: <https://dfcentre.com/about-us/about-us-research/what-we-support/building-stronger-universities-bsu/> (accessed 27 October 2019).

line with Danida's strategic framework for support to development research – is driven by the partners in the South.⁶

2. Indicators

The following indicators were extracted from the BSU II Programme Level Results and Indicator Framework (2015).⁷

Outcome Indicator 1: Strengthened research policies, strategies, organisation and research processes.

1. # % PhDs and other research products are underpinned by university agreed research policies and procedures.

Output Indicator 1.1. Policies and procedures for carrying out PhD research established.

2. # new or revised PhD policies and standards have been developed and introduced as obligatory requirements.
3. % of academic staff trained in their supervision/quality assurance.

Output Indicator 1.2. Introductory courses for PhD students covering e.g. research methodology, research proposals, thesis presentation, academic writing, research grants etc.

4. # new PhD introductory courses have been developed and run as obligatory/standard parts of PhD.
5. % of academic staff trained in course delivery.

Output Indicator 1.3. Gender balance among faculty and student members.

6. 40% faculty and PhD students are women.

Outcomes Indicator 2. Strengthened university-wide services and facilities to support research activities.

7. #% university services are ISO certified or similar.

Output Indicator 2.1. Grant financial management system strengthening (assessment, upgrading, staff training).

8. #% success rate of applications for research grants from the university.

⁶ Building Stronger Universities Phase II (BSU-II) Programme Document (2013).

⁷ BSU II Programme Level Results and Indicator Framework (2015).

Output Indicator 2.2. Standard and capacity of research laboratory facilities

9. #% Laboratory facilities satisfy standards for verifiable research in # fields.

Output Indicator 2.3. Standard and capacity of research library facilities.

10.#% Library facilities meeting key criteria for facilitating PhD level research.

Example 3. Consultative Group for International Agricultural Research (CGIAR)

Programme/Fund	CGIAR
Donor/s	Multi-donor
Time frame	1971 – present
Budget	USD 849 million (2017)
Geographic focus	Global/LMICs
Programme goals and focus	Agricultural research and innovation
Comparison with GCRF/Newton	Very similar r4d theory of change, but narrower thematic focus on agriculture, which makes mapping development outcomes to SDGs more straightforward Multi-donor networked organisation, rather than bilateral fund
Notable KPI practice	Use of ‘aspirational targets’ in sphere of indirect influence (long-term outcomes and impacts), mapped onto SDGs

1. Programme background

The CGIAR programme works to advance agricultural science and innovation to enable poor people, especially women, to better nourish their families, and improve productivity and resilience so they can share in economic growth and manage natural resources in the face of climate change and other challenges. CGIAR’s work is guided by its Strategy and Results Framework 2016 – 2030, which is strongly oriented towards the SDGs. CGIAR has three goals, known as System Level Outcomes (SLOs):

1. Reduce poverty
2. Improve food and nutrition security
3. Improve natural resources and ecosystem services

In 2017, CGIAR embarked on a new set of research programmes and platforms, with a renewed emphasis on nutrition and health, climate change, soils and degraded land, food systems waste, food safety and the global stewardship of genetic resources. The portfolio is designed to contribute significantly to the achievement of the Sustainable Development Goals through CGIAR’s 2030 targets: 150 million fewer hungry people, 100 million fewer poor people – at least 50% of whom are women – and 190 million hectares less degraded land by 2030. The new portfolio is structured around three groups of challenge-led research programmes:

- Agri-Food Systems CGIAR Research Programmes

- Global Integrating Programmes
- Research Support Platforms⁸

2. Indicators

In November 2016, a new framework for performance management was approved by CGIAR's System Council, which recognised the complexity, risk, multiple objectives and long time frames inherent in agricultural research for development (AR4D). Drawing on a framework originally developed for Canada's International Development Research Centre (IDRC), it conceptualised the results of agricultural research for development as falling into three concentric spheres:

- the Sphere of Control, the direct products of CGIAR research;
- the Sphere of Influence, where CGIAR may have some input but cannot control the outcome (such as contribution to a policy decision);
- and the Sphere of Interest, where CGIAR has very little control and which may happen many years after the research, such as adoption by farmers of a technology at large scale and at their own cost.⁹

The new reporting system, approved in 2017, is guided by the following underlying principles:

- Reporting credible, robust data based on checkable evidence.
- Aiming to report through management information systems, not as a separate exercise.
- Not using the results mechanistically to compare research programmes or in decision making on funding.
- Are presentative range of reporting information and indicators sufficient to demonstrate progress in the spheres of control, influence and interest of CGIAR.
- Choosing indicators that would be relevant to all parts of the CGIAR System, which produces very diverse outputs (for example, 'innovations' rather than 'varieties released').
- Parsimony: minimising the information required to that needed for accountability and decision making, as reporting has a high cost.

2.1 CGIAR 'Aspirational targets'

All of the following aspirational targets are linked to SDGs in the CGIAR Strategy Results Framework 2016–2030; they were extracted from the CGIAR Annual

⁸ CGIAR Annual Performance Report 2017, at: <https://www.cgiar.org/cgiar-system-annual-performance-report-2017/>

⁹ Ibid.

Performance Report 2017. Figure A1 shows how the targets are tied to the SDGs in the results framework.







1. 100 million more farm households to have adopted improved varieties, breeds or trees, and/or improved management practices.
2. 30 million people, of which 50% are women, assisted to exit poverty.
3. Improve the rate of yield increase for major food staples from current <1% to 1.2–1.5%/year.
4. 30 million more people, of which 50% are women, meeting minimum dietary energy requirements.
5. 150 million more people, of which 50% are women, without deficiencies of one or more of the following essential micronutrients: iron, zinc, iodine, vitamin A, folate, and vitamin B12.
6. 10% reduction in women of reproductive age who are consuming less than the adequate number of food groups.
7. 5% increase in water and nutrient (inorganic, biological) use efficiency in agro-ecosystems, including through recycling and reuse.
8. Reduction in agricultural- related greenhouse gas emissions by 0.2 Gigatonnes (Gt) CO₂e per year (5%) compared with business-as-usual scenario in 2022.
9. 55 million hectares (ha) of ecosystem restored, including degraded land area and aquatic ecosystems.
10. 2.5 million ha of forest saved from deforestation.

2.2 CGIAR common reporting indicators

1. Number of policies, legal instruments, investments and similar modified in their design or implementation in 2017, informed by CGIAR research
2. Altmetric (mentions on media and social media of CGIAR publications, both peer-reviewed papers and others)
3. People trained by CGIAR in 2017
4. CGIAR Partnerships
5. Number of CGIAR innovations
6. Number of peer-reviewed publications authored/co- authored by CGIAR researchers¹⁰

¹⁰ Ibid.

Figure A1. Snapshot of CGIAR results framework – aspirational targets

SRF ASPIRATIONAL TARGET	LINKS TO SDGS	LATEST DATA AVAILABLE ON GLOBAL PROGRESS	RECENT EVIDENCE ON CGIAR CONTRIBUTION TO GLOBAL PROGRESS
1.2 30 million people, of which 50% are women, assisted to exit poverty	     	<p>Globally on track</p> <p>World Bank data show that the poverty headcount (including those living on less than US\$ 1.90 a day) has dropped significantly from 1.73 billion people in 1999 to 783 million in 2013. The average international poverty gap has also dropped from 9.6% in 1999 to 3.3% in 2013.¹⁷ Although gender-disaggregated data are not yet available via the SDGs, are reported to represent about half (50.3%) of the world's extreme poor.¹⁸ Recent statistics show that 80% of the extreme poor live in rural settings.¹⁹</p>	<p>New evidence on adoption and impact: Around 9.6 million households adopted improved rice varieties (including NERICA) in Africa between 2000 and 2014. The rate of adoption of these varieties increased over these years and was more significant after the 2008 food crisis. Average income from rice more than doubled for NERICA adopters, from US\$ 25 per capita to US\$ 58 per capita. An estimated 8 million people were lifted out of poverty.²⁰ (Reported by RICE)</p> <p>New evidence on adoption and impact: In Nigeria, about a quarter (24%) of sampled farmers had adopted drought tolerant maize varieties. Adoption on average reduced the level of downside risk of crop failure by 80% (this is critical for food insecure smallholders) and maize yields were also 13% higher compared to non-adoption. An estimated 2.1 million individuals were lifted out of poverty. A smaller study in southeast Zimbabwe estimated that 30% of farmers had adopted drought tolerant maize and that this provided extra income of US\$ 240/ha or more than nine months of food at no additional seed cost.²¹ (Reported by MAIZE)</p> <p>New evidence on impact: Gains in cassava productivity in Nigeria are associated with reduced poverty. At a poverty line of US\$ 1.25 per person per day and using national adoption estimates from DNA fingerprinting, cassava productivity gains were associated with a reduction in poverty by an estimated 4.7 percentage points, implying that 8.4% of Nigeria's rural poor cassava producers (1.8 million people) escaped poverty in 2015/16.²² (Reported by RTB/IITA)</p>

Source: CGIAR Annual Performance Report 2017

Example 4. German Academic Exchange Service (DAAD)

Programme	DAAD
Donor/s	Government of Germany and the EU (10% from Federal Ministry for Economic Cooperation and Development (BMZ))
Time frame	1950 – present
Budget	Approx. EUR 522 million (2017)
Geographic focus	Global (including OECD countries)
Programme goals and focus	Scholarships and international academic collaboration
Comparison with GCRF/Newton	Stronger measurement focus on student capacity building, e.g. through scholarships and exchange programmes, reflecting different programme focus. Most relevant at input and output level of GCRF/Newton: indicators used to measure academic training activities (e.g. PhDs). But stronger focus in DAAD on the quality and longer-term outcomes of scholarships
Notable KPI practice	Outcomes as a result of engagement in scholarships and exchanges, e.g. skills development and employment

1. Programme background

The German Academic Exchange Service (DAAD) is a joint organisation of Germany's universities. It is responsible for fostering relations with universities abroad through exchanges of students, graduates and academics. Its programmes cover all subjects and are open to applicants from around the world and benefit people in Germany and abroad in equal measure.¹¹

The DAAD's BMZ funding area is comprised of programmes that are funded by the Federal Ministry for Economic Cooperation and Development (BMZ). All BMZ-funded programmes have a development policy focus. There two different types of BMZ funding support in the DAAD:

- **project funding**, where German higher education institutions cooperate with partners from developing countries. Each of these programmes includes a number of projects, which are designed and applied for by German higher education institutions in response to a call for applications.

¹¹ DAAD Annual Report 2018, at: <https://www.daad.de/medien-und-publikationen/en/29887-annual-report/>

- **scholarship programmes**, where the main focus is on funding individuals through scholarships, supplemented by accompanying measures such as further education or support services where applicable. In the BMZ area, scholarship holders are chosen jointly by the DAAD and selected higher education institutions.¹²

2. Indicators used

In 2018, the DAAD introduced results-oriented monitoring for its programmes funded by the Federal Ministry for Economic Cooperation and Development (BMZ).¹³ The following 'standard indicators' were developed for this purpose.

1. Number of the DAAD-funded full-time equivalents, employed at each participating higher education institutions (in the reporting year), differentiated by:
 - Field of activity (e.g. project coordination, scientific activities)
 - Type of academic staff (e.g. domestic assistants, staff abroad)
2. Number of DAAD-supported events held (in reporting year), differentiated by:
 - Title/topic
 - Place/country
 - Date (beginning)
 - Duration (in days)
 - Type (e.g. seminars, conferences, steering workshops)
 - Reference to the SDG
3. Number of participants in the events (in the reporting year), differentiated by:
 - Gender
 - Nationality
4. Number of DAAD-supported continuing and further education events (in the reporting year), differentiated by
 - Title/topic
 - Place/country
 - Date (beginning)
 - Duration (in days)
 - Type (e.g. seminars, conferences, steering workshops)
 - Type of qualification (e.g. subject-specific, didactical)
 - Reference to the SDG

¹² DAAD (2018) Monitoring concept for the BMZ funding area, at: https://www.daad.de/medien/der-daad/unsere-aufgaben/entwicklungszusammenarbeit/pdfs/monitoringkonzept_en.pdf (accessed 27 October 2019).

¹³ Ibid.

5. Number of participants in the continuing and further education events (in the reporting year), differentiated by:
 - Gender
 - Trained lecturers
 - Nationality
 - More than one partner institution involved
 - Internal/external

6. Number of funding activities for project-related travel (in the reporting year), differentiated by type of funding (DAAD-key).

7. Number of persons funded (in the reporting year), differentiated by
 - Gender
 - Nationality (DAAD-key)
 - Destination country (DAAD-key)
 - Nationality (DAAD-key)
 - Status (DAAD-key)
 - Duration of funding: days, weeks, months
 - Subject area (DAAD-key)
 - Type of funding (DAAD-key)
 - New funding of further funding

8. Number of newly developed or revised processes and structures at partner higher education institutions (since the beginning of funding), differentiated by:
 - Brief description
 - Area (e.g. teaching, research, management, network)
 - Contribution towards improvement

9. Number of newly developed, revised or newly introduced curricula (= entire study programmes), teaching modules and/or courses (since the beginning of funding), differentiated by:
 - Type (e.g. curriculum, teaching module, course)
 - Newly developed or revised
 - Level (e.g. Bachelor, Master, PhD)
 - Status
 - Involvement of external actors
 - Number of partner institutions involved in the developing process

10. Number of planned students/participants in study programmes as well as continuing and further education events that have been newly developed or revised supported by DAAD (since the beginning of funding), differentiated by:
 - Type (e.g. curriculum, teaching module, course)
 - Level (e.g. Bachelor, Master, PhD)

11. Number of applicants for study programmes as well as continuing and further education events that have been newly developed or revised supported by DAAD (since the beginning of funding), differentiated by:

- Type (e.g. curriculum, teaching module, course)
 - Level (e.g. Bachelor, Master, PhD)
12. Number of students/participants in study programmes as well as continuing and further education events that have been newly developed or revised supported by DAAD (since the beginning of funding), differentiated by:
- Type (e.g. curriculum, teaching module, course)
 - Level (e.g. Bachelor, Master, PhD)
13. Number of teachers in study programmes as well as continuing and further education events that have been newly developed or revised supported by DAAD (since the beginning of funding), differentiated by:
- Type (e.g. curriculum, teaching module, course)
 - Level (e.g. Bachelor, Master, PhD)
14. Number of partner institutions using the study programmes as well as continuing and further education events that have been newly developed or revised supported by DAAD (since the beginning of funding), differentiated by:
- Type (e.g. curriculum, teaching module, course)
 - Level (e.g. Bachelor, Master, PhD)
 - Name
 - Location of the institution
15. Type of funded partnerships (since the beginning of funding), differentiated by:
- Type of cooperation
 - Subject area (DAAD-key)
 - Regional focus (DAAD-key)
16. Number of active cooperation partners in the funded partnerships (since the beginning of funding), differentiated by:
- Name of the institution
 - Main office of the institution (DAAD-key)
 - Area (e.g. university, economy, civil society, politics)
 - Type
 - Development regarding the partnership
17. Number of subject-related networks in which the supported higher education institutions actively participate (since the beginning of funding), differentiated by:
- Name of the network
 - Subject-related focus (DAAD-key)
 - Region-related focus (DAAD-key)
 - Involvement of non-university actors
 - Major function of the network
 - Value added to the partner institution

18. Number of research and consulting products developed by the participating higher education institutions in support of DAAD (in the reporting year), differentiated by:
- Title/topic
 - Type (e.g. project and research proposals)
 - Status
19. Number of publications developed supported by DAAD (in the reporting year), differentiated by:
- Type (e.g. scientific journals, reviews, newspapers)
 - Status
20. Number of higher education institutions who, by participating in the programme, have acquired or improved expertise in development cooperation until the end of the project.
21. Number of DAAD-scholarship holders (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Grant cohort
 - Degree pursued
 - Study progress
 - On schedule (yes, no)
 - All relevant academic achievements have been acquired (yes/no)
 - Assessment of credits
22. Number/ratio of DAAD-scholarship holders that have completed their studies (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree pursued
 - Date of prospective graduation
 - Grade
 - Self-assessment of performance
23. Ratio of graduates that, directly after completion of scholarship, evaluate the utility of their participation in the programmes as positive for their career (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Status (DAAD-key)
24. Number of graduates who, as a result of their course of study, have newly acquired or improved their skills (in the reporting year), differentiated by:
- Gender
 - Nationality

- Status (DAAD-key)
 - Type of qualification (e.g. subject-related, didactical)
25. Number of graduates who, as a result of continuing and further education, have newly acquired or improved their skills (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Status (DAAD-key)
 - Type of qualification (e.g. subject-related, didactical)
26. Ratio of graduates that intend to return to their country or region of origin within 5 years (in the reporting year), differentiated by:
- Gender
 - Nationality
27. Ratio of graduates that returned to their country of origin within 3 years (in the reporting year):
- Gender
 - Nationality
 - Degree
28. Ratio of graduates that, within 3 years after the completion of the scholarship, start to work in a position suitable to their education (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree
 - Type of employment
 - Sector of employment
29. Ratio of graduates that, within 3 years after completion of the scholarship, are employed in a position that contributes to the development of their country or region of origin (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree
30. Ratio of scholarship holders whose parents have maximally completed primary education (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree

31. Ratio of graduates who state to have acquired new expertise and new academic methods immediately after completion of the scholarship (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree
32. Ratio of alumni and participants of DIES-events who state to have newly acquired or improved their skills as a result of continuing and further education (in the reporting year as well as since the beginning of funding).
33. Ratio of alumni and participants of DIES-events who state directly after participation in the programme that they want to become active as a multiplier in the subject of the event (in the reporting year), differentiated by:
- Desired position as multiplier
34. Ratio of scholarship holders who, within 3 years after participation in the programme, are active as multipliers of the subject of the event (in the reporting year), differentiated by:
- Possible position as multipliers
35. Number of activities that were held by alumni within the first year after participation in the programme (in the reporting year), differentiated by:
- Activities (e.g. informal, events, projects)
36. Ratio of graduates who state that, within 3 years after completion of the scholarship, they have passed on their knowledge/skills acquired during their studies (in Germany) in their present activity (in the reporting year), differentiated by:
- Gender
 - Nationality
 - Degree
 - Type of transfer

Example 5. DFID's ESPA Programme

Programme	Ecosystem Services for Poverty Alleviation (ESPA)
Donor/s	DFID, NERC & ESRC
Time frame	2009–2018
Budget	£44 million
Geographic focus	Global/LMICs
Programme goals and focus	Ecosystem sustainability for poverty reduction
Comparison with GCRF/Newton	More KPI focus on research-into-use process, less on innovation outcomes and impacts
Notable KPI practice	Research-into-use, including communication and dissemination indicators

1. Programme background

ESPA was a 9-year global interdisciplinary research programme that aimed to give decision-makers and natural resource users the evidence they need to address the challenges of sustainable ecosystem management and poverty reduction.¹⁴

The programme was developed by the UK government in response to the findings of the 2005 Millennium Ecosystem Assessment that substantial gains in human wellbeing in recent decades have been achieved at the expense of high and often irreversible levels of ecosystem degradation. The programme was delivered between 2009 and 2018. ESPA's primary goal was to ensure that ecosystems will be conserved and managed more sustainably – in ways that alleviate poverty and enhance wellbeing. Its key objectives were:

- To create a strong research and evidence base on the connections among ecosystem services, their dynamics and management, human use and pathways to sustainable poverty reduction.
- To develop innovative, interdisciplinary research and methodologies, delivering tools and approaches that enable decision-makers to simulate and predict socio-ecological responses to complex social and economic trends.
- To engage and communicate effectively with policy-makers, practitioners and decision-makers so that ESPA's research is well understood and used.
- To enhance the capacity of researchers in the global South to conduct, lead, use and communicate high-quality ESPA-type interdisciplinary research, including through effective international research partnerships.¹⁵

¹⁴ ESPA Programme Highlights 2009–2018 (2018), at: <https://www.espa.ac.uk/programme-highlights> (accessed 27 October 2019).

¹⁵ Ibid.

2. Indicators

The following indicators were retrieved from the ESPA programme document: 'Monitoring and Evaluation in ESPA: ESPA Directorate Key Performance Indicators' (May, 2013).¹⁶

Directorate provides intellectual leadership to ESPA

Indicator 1.1: ESPA Directorate ensures that ESPA's research portfolio advances the knowledge base on ecosystem services for poverty alleviation. Evidence:

1.1.1 Directorate's review of ESPA science identifies emerging research priorities and places ESPA's science in a global context. *Measured:* 6-monthly

1.1.2 Directorate reports on its annual knowledge strategy review, which shapes the focus of the ESPA research programme. *Measured:* Annually

1.1.3 Directorate reports on their synthesis reviews of the outcomes of ESPA-funded research. *Measured:* Annually

Indicator 1.2: ESPA Directorate supports the development and delivery of a research portfolio that is relevant, high-quality and inter-/multi-disciplinary Evidence:

1.2.1 Directorate reports on its interactions with projects through review meetings and Global Forum events. *Measured:* Annually

1.2.2 Directorate reports on its interactions to facilitate inter-/multi-disciplinary collaboration in the ESPA research community. *Measured:* Annually

1.2.3 Directorate reports on strategic interactions with key research users and policy-makers on information needs. *Measured:* Annually

Indicator 1.3: Directorate and Directorate-commissioned research. Evidence:

1.3.1 Directorate reports on the progress and outcomes of research undertaken by Directorate staff or research commissioned by the Directorate. *Measured:* Annually

1.3.2 Integrative research and synthesis papers prepared and published as a result of Directorate activities or research commissioned by the Directorate. *Measured:* Annually

1.3.3 Number of Early Career Research Grants awarded. *Measured:* Annually

1.3.4 Number of outcomes reported through the Research Outcomes System (ROS) by recipients of Early Career Research Grants. *Measured:* Annually

¹⁶ 'Monitoring and Evaluation in ESPA: ESPA Directorate Key Performance Indicators', at: <http://www.espa.ac.uk/files/espa/ESPA-Directorate-KPIs.pdf> (accessed 27 October 2019).

Indicator 1.4: ESPA Directorate influencing the wider research agenda Evidence:

1.4.1 Directorate reports on its interactions, joint events or joint funding initiatives with similar research programmes or ESPA-related development programmes. *Measured:* Annually

1.4.2 Invitations for the Directorate to present at/share ESPA research evidence and other lessons learnt from the programme with international research and policy processes. *Measured:* Annually

Directorate plans and co-ordinates ESPA communications and knowledge exchange between researchers and research users

Indicator 2.1: Global Outreach Evidence

2.1.1 Number, source and target of ESPA website hits, twitter followers and ESPA blog hits. *Measured:* Quarterly

2.1.2 ESPA Forum (ESPA researchers, people on the ESPA mailing list, participants at ESPA events) increasing in membership. *Measured:* Quarterly

Indicator 2.2: Outreach to the ESPA research community Evidence

2.2.1 Regular communication to the ESPA research community measured by the number of ESPA Research Newsletters published and the number of recipients it is distributed to. *Measured:* Annually

Indicator 2.3: Communication with research users and policy-makers. Evidence:

2.3.1 Regular communication to potential users of ESPA research measured by the number of ESPA Highlights Newsletters published and the number of recipients it is distributed to. *Measured:* Annually

Indicator 2.4: Knowledge exchange events organised and commissioned by the Directorate or in collaboration with other programmes. Evidence:

2.4.1 Directorate reports on the number of science and impact knowledge exchange events organised by the Directorate, or through work commissioned by the Directorate, and their proceedings and outcomes. *Measured:* Annually

2.4.2 Participation levels (record of numbers and representation) for ESPA science and impact events organised by the Directorate or through work commissioned by the Directorate. *Measured:* Annually

Indicator 2.5: Directorate publishes knowledge exchange documents or electronic content

2.5.1 Directorate reports on the number and content of impact notes, policy briefs and related publications documenting ESPA research outcomes and impacts prepared and disseminated by the Directorate or through work commissioned by the Directorate. *Measured:* Annually

Indicator 2.6: Directorate interactions with potential ESPA research users to exchange knowledge derived from the ESPA programme

2.6.1 Directorate reports on interactions with actual and potential ESPA research users and policy-makers. *Measured:* Annually

Directorate supports capacity strengthening for ESPA researchers to enhance the programme's outcomes

Indicator 3.1: ESPA Future Research Leader Fellowships Scheme commissioned and managed by the Directorate. Evidence:

3.1.1 Number of ESPA Future Research Leader Fellowships commissioned. *Measured:* Annually

3.1.2 Number of outcomes reported through ROS by ESPA Future Research Leader Fellows. *Measured:* Annually

3.1.3 Directorate reports on the number of capacity-strengthening events organised for ESPA Fellows by the ESPA Directorate and their outcomes. *Measured:* Annually

Indicator 3.2: ESPA Directorate provides capacity-strengthening guidance and support to ESPA researchers and projects covering research methods, project design, interdisciplinary collaboration, research dissemination and interaction with research users. Evidence:

3.2.1 Directorate's record of capacity building events and materials: topics, participants and download details for electronic materials. *Measured:* Annually

3.2.2 Directorate guidance materials for project applicants and grantees updated annually based on feedback of capacity-strengthening needs. *Measured:* Annually

Monitoring and evaluation

Indicator 4.1: Internal programme monitoring and reporting on projects. Evidence:

4.1.1 Periodic (6-monthly) reporting of ESPA projects is on time and meets the Directorate's requirements. *Measured:* 6-monthly

4.1.2 Directorate reports on their review of ESPA projects' progress reports and outputs submitted via ROS. *Measured:* 6-monthly

4.1.3 Directorate reports on liaison visits and meetings with project leaders, project teams and local stakeholders. *Measured:* Annually

Indicator 4.2: Effective programme monitoring and risk management Evidence:

4.2.1 Demonstrated progress of the ESPA programme against its work plan milestones and the Programme Monitoring Framework (Log Frame) as

reported in Directorate quarterly and annual reports. *Measured:* Quarterly (reported annually)

4.2.2 The Directorate's programme risk assessment and management systems are reviewed and maintained at least annually. *Measured:* Annually

Effective programme management and contributions to programme governance by the Directorate

Indicator 5.1: Directorate management of the ESPA programme (excluding financial management) and its contribution to ESPA's governance. Evidence

5.1.1 The Directorate's contribution to programme management and governance documented through reports from meetings with the PEB, PMU and the ESPA I-PAC. *Measured:* Quarterly (reported annually)

Indicator 5.2: Effective Directorate Operational Management. Evidence:

5.2.1 Directorate effectively manages its resources to deliver its work programme as agreed by the PEB and as documented in the Directorate's annual and quarterly reports. *Measured:* Quarterly (reported annually)

5.2.2 Optimal staffing complement of the Directorate is maintained with staff management and retention systems in use. *Measured:* Annually

5.2.3 The Directorate's quality management systems are applied and processes documented. *Measured:* Annually

Example 6. EU's Horizon 2020

Programme/Fund	Horizon 2020
Donor/s	European Union (EU)
Time frame	2014–2020
Budget	EUR 80 billion
Geographic focus	EU
Programme goals and focus	Strengthen EU global competitiveness through research and innovation; creating a single market for knowledge, research and innovation within the EU
Comparison with GCRF/Newton	Not ODA-funded, but similar focus on innovation outcomes and systems through funding research
Notable good practice	Indicators for innovation and market systems strengthening

1. Programme background

Horizon 2020 is the EU's largest funding programme for research and innovation that provides support from basic research through to innovation. Almost €80 billion of funding is available over 7 years (2014 to 2020). It aims to create growth and jobs, tackle societal challenges and reinforces Europe's international competitiveness.¹⁷

In the context of tighter budgets and more public attention to the effectiveness of public funding and EU-funded research, Horizon 2020 has made a conscious shift towards the use of indicators that aim to capture results and impacts and established a Working Group for Horizon 2020 Key Performance Indicators. While the focus of evaluation under past EU Framework Programmes for research has primarily been on analysing participant characteristics, R&D inputs and EU-funded project outputs, the emphasis under Horizon 2020 is to assess its impact on Europe's scientific and technological performance and research capacity and more widely on the European economy and society.¹⁸

2. Indicators

The following indicators have been extracted from the Horizon 2020 Indicator Framework document.¹⁹ The programme notes that, as these performance indicators are focused on assessing the impact of Horizon 2020, they will be based on information provided in the periodic and final reports of projects, so substantial data for them will only become available in the later stages of Horizon 2020. For some

¹⁷ What is Horizon 2020?, at: <https://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020> (accessed 27 October 2019).

¹⁸ Horizon 2020 Indicators – Assessing the results and impact of Horizon 2020, at: <https://ec.europa.eu/programmes/horizon2020/en/news/horizon-2020-indicators-assessing-results-and-impact-horizon> (accessed 8 October 2019).

¹⁹ *ibid.*

indicators, ex-ante assessments at the proposal evaluation stage may be used to provide provisional information at an earlier stage.²⁰

1. ERC²¹ – Percentage of publications from ERC-funded projects which are among the top 1% highly cited.
2. FET²² – Publications in peer-reviewed high-impact journals.
3. FET – Patent applications and patents awarded in Future and Emerging Technologies.
4. Marie Skłodowska-Curie actions²³ – Cross-sector and cross-country circulation of researchers, including PhD candidates.
5. Research Infrastructures – Number of researchers who have access to research infrastructures through support from Horizon 2020.
6. LEIT²⁴ – Patent applications and patents awarded in the different enabling and industrial technologies.
7. Risk Finance – Total investments mobilised via debt financing and Venture Capital investments.
8. Risk Finance – Number of organisations funded and amount of private funds leveraged.
9. SME – Percentage of participating SMEs introducing innovations new to the company or the market (covering the period of the project plus 3 years).
10. SME – Growth and job creation in participating SMEs.
11. Societal Challenges – Publications in peer-reviewed high-impact journals in the area of the different Societal Challenges.
12. Societal Challenges – Patent applications and patents awarded in the area of the different Societal Challenges.
13. Societal Challenges – Number of prototypes and testing activities.
14. Societal Challenges – Number of joint public-private publications.
15. New products, processes, and methods launched into the market.

²⁰ Ibid.

²¹ ERC – European Research Council.

²² FET – Further and Emerging Economies.

²³ The Horizon 2020 website states that 'The Marie Skłodowska-Curie actions (MSCA) provide grants for all stages of researchers' careers – be they doctoral candidates or highly experienced researchers – and encourage transnational, intersectoral and interdisciplinary mobility', at: <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/marie-skłodowska-curie-actions> (accessed 8 October 2019).

²⁴ LEIT – Leadership in enabling and industrial technologies.

16. Percentage of the overall energy challenge funds allocated to the following research activities: renewable energy, end user energy-efficiency, smart grids and energy storage activities.
17. Spreading Excellence and Widening Participation – Evolution of the publications in high-impact journals in the given research field.
18. Science with and for Society – Number of institutional change actions promoted by the programme.
19. JRC²⁵ – Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific support provided by the Joint Research Centre.
20. JRC – Number of peer-reviewed publications in high-impact journals.

²⁵ JRC – European Commission Joint Research Centre.

Example 7. IDRC RQ+ Framework

Programme/ Fund	International Development Research Centre (IDRC)
Donor/s	The Government of Canada and other donors
Timeframe	1970 – present
Budget	194 909 Canadian dollars (2019 – 2020) ²⁶
Geographic focus	Global/ LMICs
Programme goals & focus	Research for development
Comparison with GCRF/ Newton	Not an indicator set, but assessment framework for r4d programmes and interventions.
Notable KPI practice	Widening the definition of research quality to include non-academic impacts through focus on context and ‘positioning for use’. It places specific emphasis on the importance of engaging with local knowledge and contexts in LMICs for research integrity and legitimacy.

1. Programme Background

The International Development Research Centre (IDRC) was established by the Parliament of Canada in 1970. The IDRC invests in ‘knowledge, innovation, and solutions to improve the lives of people in the developing world’.²⁷ It aims to support research that builds ‘evidence to break the cycle of poverty, reduce inequalities and vulnerabilities, and help people live healthier and more sustainable lives’.²⁸

The IDRC has developed an approach for evaluating the quality of research for development: Research Quality Plus (RQ+), which was initially designed for use in a set of external IDRC programme reviews undertaken in 2015.²⁹ The approach uses a broad definition of research quality that includes scientific rigor but also recognises other critical dimensions, including contextual factors. The framework has three main components:

²⁶ IDRC (2019) ‘Management’s discussion and analysis and financial statements 2018 – 2019’, at: <https://www.idrc.ca/en/stories/annual-report-2018-2019#mda> (accessed 10 December 2019).

²⁷ IDRC, ‘What we do’, at: <https://www.idrc.ca/en/what-we-do>

²⁸ Ibid.

²⁹ IDRC RQ+ case studies, at: <https://www.idrc.ca/en/research-in-action/research-quality-plus>

1. A multi-dimensional view of research, which **broadens the definition of research quality** to include: integrity, legitimacy, importance, and positioning for use.
2. A model that takes **context** seriously. The framework recognises that the predominant forms of research quality assessment can isolate research from its environment. RQ+ interprets quality with respect to varying political, organisational, disciplinary and data settings.
3. The use of systematic rubrics, which enable RQ+ evaluators to draw **evidence-based conclusions**. The framework uses data acquired from asking the intended users of research for their insights. It balances these perspectives against the voices of beneficiary communities, other researchers in the same field, and bibliometrics.³⁰

2. Indicators

RQ+ does not use specific indicators. Rather it is an evaluation framework that can be adapted to specific programme and organisational contexts. As shown in Figures 1 and 2, the framework can be operationalised with evaluative rubrics that allow teams to identify and synthesise programme and project trends, as well as conduct summative evaluations.

2.1. Key Influences

The key influences are designed to help evaluators, managers, funders, and others to make meaningful and systematic considerations of the enabling or constraining factors of the research and the risk profile of the project, program, or portfolio, and to incorporate these to the extent possible into their assessments.

1. **Maturity of the Research Field** - The extent to which well-established theoretical and conceptual frameworks exist and from which well-defined hypotheses have been developed and subjected to testing, as well as a substantial body of conceptual and empirical research in the research field.
2. **Research Capacity Strengthening** - The extent to which the research endeavor or project focuses on strengthening research capacities through providing financial and technical support to enhance capacities to identify and analyze development challenges, and to conceive, conduct, manage, and communicate research that can address these challenges.
3. **Risk in the research environment** - The extent to which the organizational context in which the research team works is supportive of the research, where “supportive” refers, for example, to institutional priorities, incentives, and infrastructure.
4. **Risk in the political environment** - The extent of external risk related to the range of potential adverse factors that could arise as a result of political and

³⁰ IDRC (2018), RQ+ In Brief, at: <https://idl-bnc-idrc.dspacedirect.org/handle/10625/56987> (accessed 27 October 2019)

governance challenges, and that could affect the conduct of the research or its positioning for use. These range from electoral uncertainty and policy instability to more fundamental political destabilization, violent conflict, or humanitarian crises.

5. **Risk in the data environment** - The extent to which instrumentation and measures for data collection and analysis are widely agreed upon and available, and the research environment is data rich or data poor.³¹

Figure 1. Snapshot of an RQ+ evaluation rubric: ‘Key Influences’

Research Output		Fictional peer reviewed Journal Article	Fictional Book	Fictional Policy Brief	Fictional Government Report	Fictional Working Paper	Fictional Book	Fictional Policy Brief	Fictional peer reviewed Journal Article	Fictional peer reviewed Journal Article	Fictional peer reviewed Journal Article	Roll up per dimension or influencing factor
		PROJECT A	PROJECT B	PROJECT C	PROJECT D	PROJECT E	PROJECT B	PROJECT C	PROJECT A	PROJECT A	PROJECT A	
Stage 2: Characterizing the Influencing Factors of Projects Chosen for Review												
Key influence 1	Maturity of the Research Field	Emerging	Established	Established	Established	Established	Established	NA	Established	NA	Established	
Key influence 2	Researcher Capacity Strengthening	Medium Focus	Low Focus	Medium Focus	Low Focus	Strong Focus	Strong Focus	NA	Low Focus	NA	Low Focus	
Key influence 3	Risk in the Data Environment	Medium	Low	High	Low	Medium	Low	NA	NA	NA	Low	
Key influence 4	Risk in the Research Environment	Medium	Medium	Medium	Low	Medium	High	NA	High	NA	Medium	
Key influence 5	Risk in the Political Environment	High	Medium	High	Low	Low	High	NA	High	Medium	High	

2.2. Research quality dimensions

1. **Research integrity** - Considers the technical quality, appropriateness and rigor of the design and execution of the research as judged in terms of commonly accepted standards for such work and specific methods, and as reflected in research project documents and in selected research outputs. Specified emphases include the research design, methodological rigor, literature review, systematic work, and the relationship between evidence gathered and conclusions reached and/or claims made. Peer reviewed and non-peer reviewed outputs undergo different assessment processes using different criteria.
2. **Research legitimacy** - Considers the extent to which research results have been produced by a process that took account of the concerns and insights of relevant stakeholders, and was deemed procedurally fair and based on the values, concerns and perspectives of that audience. Legitimacy deals primarily with who participated and who did not; the process for making choices; how information was produced, vetted and disseminated; how well knowledge was localized, and if it respected local traditions and knowledge

³¹ Ofir, Z., T. Schwandt et al (2016) Research Quality Plus (RQ+) a Holistic Approach to Assessing Research Quality. Ottawa: International Development Research Centre (IDRC).

systems. This dimension also includes a subdimension that asks the assessor to consider the potentially negative consequences and outcomes for populations affected by the research, gender-responsiveness, inclusiveness of vulnerable populations, and engagement with local knowledge.

3. **Research importance** - Considers the importance and value to key intended users of the knowledge and understanding generated by the research, in terms of the perceived relevance of research processes and products to the needs and priorities of potential users, and the contribution of the research to theory and/or practice. Subdimensions include the originality and relevance of the research.
4. **Positioning for use** - Considers the extent to which the research process has been managed, and research products/ outputs prepared in such a way that the probability of use, influence and impact is enhanced. The uptake of research is inherently a political process. Preparing for it therefore requires attention to user contexts, accessibility of products, and 'fit for purpose' engagement and dissemination strategies. It also requires careful consideration of relationships to establish before and/or during the research process, and^{[L]_{SEP}}the best platforms for making research outputs available^{[L]_{SEP}}to given targeted audiences and users. Positioning for use calls for strategies to integrate potential users into the research process itself wherever this is feasible and desirable. Subdimensions include knowledge accessibility and sharing, actionability, and timeliness.³²

³² Ibid.

Figure 2. Snapshot of an RQ+ evaluation rubric: ‘Research Quality’

Dimension 2: Research Legitimacy; Subdimension 2.4: Engagement with Local Knowledge									
NOT APPLICABLE		UNACCEPTABLE		LESS THAN ACCEPTABLE		ACCEPTABLE TO GOOD		VERY GOOD	
		1	2	3	4	5	6	7	8
The nature of the research is such that local knowledge and engagement do not need to be taken into account.		Engagement with local contexts has been neglected during the research process. Several major weaknesses can be found, related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, and local benefits from the research process assured.		Local contexts and engagement have been considered during the research process, but some weaknesses remain related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, and/or local benefits from the research process assured.		Local context and engagement have been a focus in the research process. Few, if any, minor weaknesses remain related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, or local benefits from the research process assured.		Local context and engagement have been a clear and systematic focus in the research process. Research needs and questions were appropriately identified, local communities or populations engaged, local contexts and knowledge systems considered and respected, and local benefits from the research process assured.	
Dimension 3: Research Importance; Subdimension 3.2: Relevance									
UNACCEPTABLE		LESS THAN ACCEPTABLE		ACCEPTABLE TO GOOD		VERY GOOD			
		1	2	3	4	5	6	7	8
There is little or no evidence that the research might contribute to a local priority, a key development policy or strategy, or an emerging area that might demand solutions in the foreseeable future. Needs assessments and justification for the work are absent or unconvincing.		There is some evidence that the research might contribute to a local priority, a key development policy or an emerging area that might demand solutions in the foreseeable future. A focus on this area of work at this time appears sufficiently justified.		There is good evidence that the research might contribute to an important local priority, a key development policy or strategy, or an emerging area of some significance that might demand solutions in the near future. A focus on this area of work at this time has been well justified.		There is good evidence that the research is already recognized as having the potential to address a critical local priority, a key development policy or strategy, or an important emerging area that is highly likely to demand solutions in the near future. A focus on this area of work at this time puts the researchers at the cutting edge of an active and/or important field of work.			

Example 8. DFID support to the International Growth Centre (IGC)

Programme/Fund	International Growth Centre – Phase 2
Donor/s	DFID
Time frame	2013–2019
Budget	£73.9 million
Geographic focus	Global/LMICs (15 DFID focus countries)
Programme goals and focus	Research for growth and poverty reduction in DFID focus countries
Comparison with GCRF/Newton	Similar r4d theory of change, but different institutional structure and thematic focus: a university housed research centre with specific focus on economic growth
Notable KPI practice	Research influence on policy; cumulative knowledge production and influence

1. Programme/Fund background

The IGC aims to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research. The IGC directs a global network of researchers and in-country teams in Africa and South Asia and works closely with partner governments to generate high-quality research and policy advice on key growth challenges. Based at the London School of Economics and Political Science, and in partnership with the University of Oxford, the IGC is majority funded by the UK Department for International Development (DFID).³³

The main objective of DFID’s support to the IGC is ‘[t]o improve economic growth policies and programmes in 15 DFID focus countries to increase economic development for poverty reduction’, which is done ‘through country programmes that provide growth policy advice based on demands from policy-makers in partner governments.’³⁴ New policies and programmes from the IGC’s policy advice and research work are expected to improve growth for poverty reduction in all partner countries by March 2017.³⁵

2. Indicators

These indicators were retrieved from the project’s logistical framework, published on the DFID Development Tracker page for the IGC Phase 2 project.³⁶

Impact – sustainable growth in development countries

³³ IGC Website, at: <https://www.theigc.org/about/> (accessed 27 October 2019).

³⁴ DFID Development Tracker, International Growth Centre (Phase II), at: <https://devtracker.dfid.gov.uk/projects/GB-1-203286> (accessed 27 October 2019).

³⁵ Ibid.

³⁶ Ibid.

1. Number of countries identified in the 2011 DFID Bilateral Aid Review[1] with real GDP growth rates of 5% or above.
2. Outcomes – Credible growth policies and programmes implemented in developing countries.
3. Number of changes to growth related policies (based on IGC research and advice). Indicated by number of L4 impact cases.
4. Number of partner and non-partner countries where ideas emanating from IGC programme have influenced policy discussions. Indicated by L3 and L4 impact cases.

Output 1. Country-specific, evidence-based, and timely advice provided to answer developing country policy-makers' growth questions.

1. Number of IGC standard working papers and conference papers produced by projects funded by the IGC Research Programme in Phase 2, cumulative.
2. Number of country programmes fully functioning with demonstrated stakeholder engagement.
3. Number of IGC projects (cumulative from baseline) that have substantially contributed to the policy process.
4. Number of IGC country programmes with at least two new outputs that have substantially contributed to the policy process.
5. Number of non-partner countries, regional organisations or multilateral organisations that have been engaged with for policy advice and/or advice on regional issues that have been met by IGC engagement.

Output 2. World class policy-oriented research undertaken on developing country growth issues and widely disseminated.

1. Number of articles accepted for publication (including 'revise and resubmit') produced by project funded by the IGC Research Programme in Phase 2. Targets are cumulative.
2. Cumulative number of peer-reviewed articles achieving 10 or more citations in other academic articles, funded by IGC in Phase 2, (in brackets: cumulative total Phase 1 and Phase 2).
3. Number of Phase 2 commissioned research or country studies to be authored or co-authored by 'local researchers' (cumulative).
4. Proportion of Phase II Research Programme grants (by value) research projects having at least one PI outside the IGC research network at the time of application.
5. Value of projects approved by commissioning boards in the IGC Research Programme Phase 2 and signed off by DFID, cumulative.
6. Proportion Special Call for PhD Students proposals commissioned from top institutions.

7. Proportion of Special Call for PhD Students proposals commissioned having at least one PI outside the IGC research network at the time of application.
8. Proportion of Special Call for Research Affiliates proposals commissioned that: a) Are strongly aligned with the Country Strategy Note. b) Build on previous IGC work.

Output 3. Strengthen IGC's relations with its stakeholders and communicate the IGC`s work globally and locally.

1. IGC demonstrates active participation in international debates, as demonstrated by:
 - Number of IGC publications on a global debate/issue. These papers should be specific to the issue, representing clusters of IGC knowledge.
 - Representation of the IGC at external events (such as WTO, IMF/World Bank Annual Meetings).
2. IGC communicates to a broad global and local audience as demonstrated by:
 - Increased number of unique visitors on the main IGC website [a]
 - Increased engagement (Twitter followers) (b)
 - Global communications.
3. IGC engages and communicates in-country, as demonstrated by the number of countries that have:
 - [a] Instigated new relationships and/or maintained existing relationships with targeted influential senior stakeholders and partners.
 - [b] Engaged with the general public, as measured by the number of written press (print and web), radio or television mentions.

Output 4. The IGC is well managed and responsive.

1. Low number of vacancies across IGC core positions, as evidenced by:
 - Average % of hub positions filled
 - Number of country programmes where core positions are filled for at least 83% of the year.
2. Percentage of the revised budget actively completed on time across the whole programme, by the end of the fiscal year.
3. IGC shows clear evidence of savings, as set out in the Phase 2 bid (not including vacancies or unfilled posts).

Example 9. Sida International Science Programme (ISP)

Programme	International Science Programme (ISP), Uppsala University
Donor/s	Sida
Time frame	2014–2018
Budget	Sida provision: 162 MSEK (80% of its overall budget) for the 2014-2018 programme period
Geographic focus	Global/LMICs
Programme goals and focus	Long-term funding for the development of research capacities in low-income countries in Chemistry, Mathematics and Physics
Comparison with GCRF/Newton	Similar, but narrower, focus on capacity development in LMICs
Notable KPI practice	Capacity development in LMICs

1. Programme background

The ISP at Uppsala University provides long-term funding to the development of research capacities in low-income countries in Chemistry, Mathematics and Physics. It focuses on supporting research groups (RG) and scientific networks (SN), the majority of which are working in defined applied science problem areas within the basic sciences. These groups and networks in turn collaborate with better-resourced scientific teams and individuals either within or outside their own region. The programme's principal activities include:

- capacity development;
- long-term support;
- improved research environments;
- collaborative links;
- exchange activities;
- and PhD training.

In 2017 ISP supported 40 research groups and 19 science networks in 12 countries, nine of which are Sida focus countries. Sida has been the main funder of ISP's core programme since 1965.

The stated aims of the 2014-2018 ISP align with Sida's interests in promoting the role of scientific knowledge for addressing development challenges and contributing to social and economic development. Three specific objectives structure the ISP:

1. Improved organisation, conditions for and planning of research and training
2. Greater production of high-quality research outputs

3. Increased relevance and use of trained graduates and research results for society.

The ISP has a 'direct, facilitating and promotive role' in supporting scientific activities in its partner research groups and university departments.³⁷

2. Indicators

It was not straightforward to find Sida indicators online, which is partly reflective of Sida's flexible funding model, which does not stipulate or make compulsory the use of indicators for programme results measurement. Its approach to indicators is outlined in the OECD-DAC PEER Review (2019) of Swedish development assistance:

Sida does not require partners to use a fixed template when applying for financial support [...] Use of indicators is not mandatory and the extent to which quantitative measurement and monitoring is utilized depends, including on context, modality and partner capacity. Any indicators will be those of the partner organisations. Gender sensitive methods shall be used in follow-up. Reporting requirements are stipulated in contracts with partner organisations. Reporting is generally both qualitative and quantitative. Hence, Sida draws fully on the partner countries' own systems for planning, follow-up and reporting of interventions.

Sida does not have a corporate results framework or any indicators of its own. Instead, the 'framework' in use consists of the various strategies in which there are common thematic strands but objectives are context specific. There are no 'standard indicators' as there are no 'standard objectives'.³⁸

The following indicators were extracted from the ISP final programme evaluation 2014–18.³⁹ They relate to the capacity building subdimension of the programme only.

1. Provision of:

- equipment and resources short-term overseas fellowships for PhD students;
- support to upgrade teaching and supervision skills of RG leaders;
- courses run by overseas lecturer;
- (where relevant) coordination with bilateral programme to improve university environment etc.;

³⁷ Evaluation of Sida supported 'International Science Programme 2014 – 2018', at: <https://www.sida.se/English/publications/160358/evaluation-of-the-sida-supported-programme-international-science-programme-20142018/> (accessed 27 October 2019).

³⁸ OECD DAC Peer Review 2019 – Memorandum of Sweden, at: <http://www.oecd.org/dac/peer-reviews/Sweden-2019-Memorandum.pdf> (accessed 27 October 2019).

³⁹ Evaluation of Sida supported 'International Science Programme 2014–2018', at: <https://www.sida.se/English/publications/160358/evaluation-of-the-sida-supported-programme-international-science-programme-20142018/> (accessed 27 October 2019).

- courses run by overseas lecturer;
 - (where relevant) coordination with bilateral programme to improve university environment etc.;
2. Improved facilities for training PhDs;
 3. Quality of PhD training in home;
 4. Quality of PhD training in home universities is strengthened;
 5. X% decrease in number of PhD students on sandwich training in ISP-supported RGs and SNs;
 6. X% increase in number of PhD students being trained in home universities in ISP- supported RGs and SNs;
 7. X% increase in number of PhD graduates in ISP-supported RGs and SNs who have been trained in home universities;
 8. That home universities actively support this development;
 9. That funding for activities is sufficient;
 10. (Where relevant) that coordination with bilateral programme takes place and is effective.

Example 10. World Bank Knowledge for Change Program

Programme/Fund	World Bank Knowledge for Change Program
Donor/s	Multi-donor
Time frame	2002 – present
Budget	US\$14.5 million (KCP III, 2015–2019)
Geographic focus	Global
Programme goals and focus	Global knowledge networks to leverage research towards Sustainable Development Goals
Comparison with GCRF/Newton	Different funding model: multi-donor trust fund. Similar goals: using research to drive innovation with the aim of contributing to the achievement of the SDGs. Less focus on research collaboration with LMICs and institutional capacity building
Notable KPI practice	Simplicity of 'key indicators', including counting number of impacts in World Bank (WB) and partner governments as a result of research outputs

1. Programme background

The Knowledge for Change Program (KCP) is a multi-donor trust fund established in 2002 to promote high-quality, innovative research, creating knowledge to support policies for poverty reduction and sustainable development. Since its inception, the KCP has raised over \$70 million and funded more than 350 projects for research and data collection.⁴⁰

From its inception in fiscal year (FY) 2015 to June 30, 2019, KCP III has received US\$14.5 million in cash contributions from seven donors, and an additional US\$2.3 million pledged contributions. The seven donors are Norway, Estonia, Canada, the United Kingdom, Finland, France, and Sweden.

KCP III carries out policy relevant research and data collection and analysis activities within the following themes:

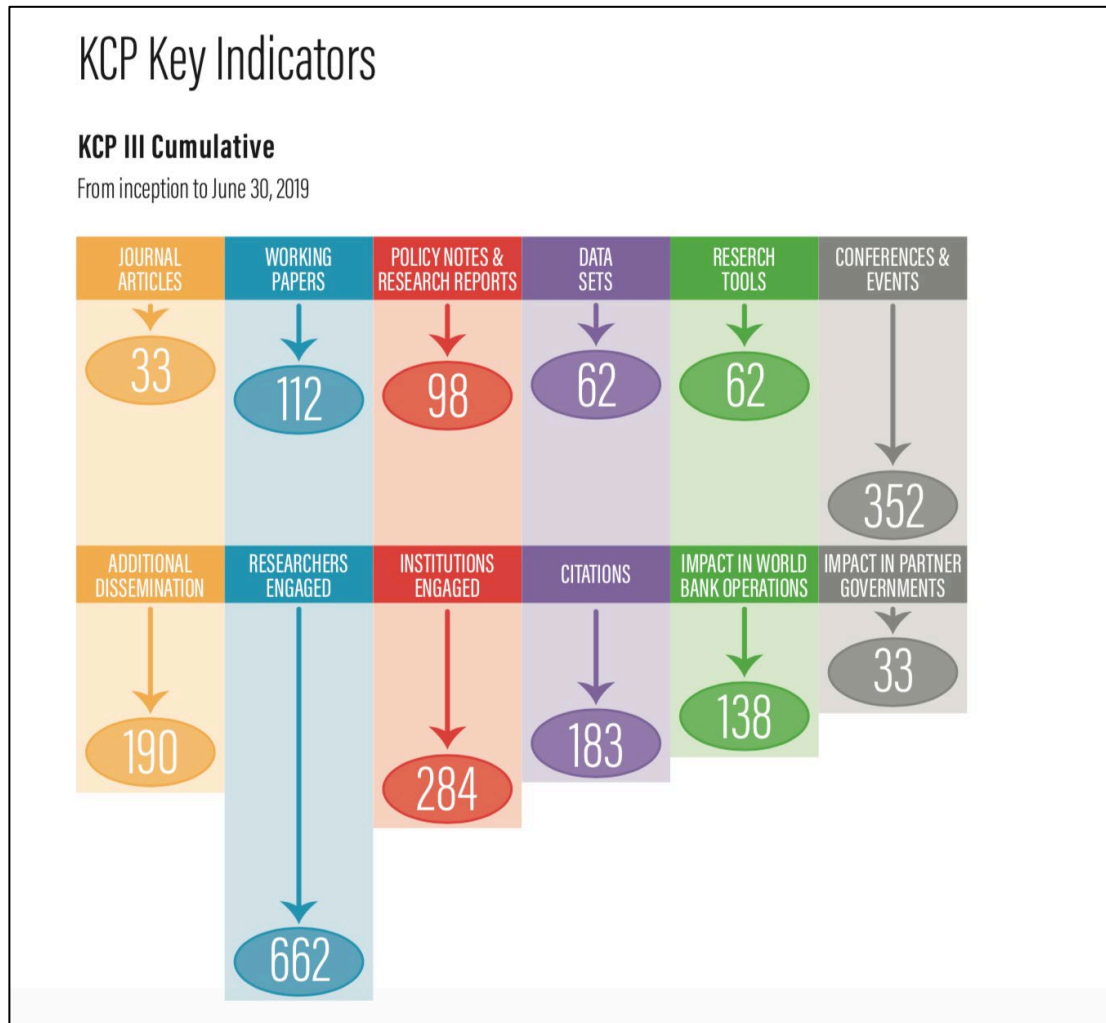
- Fragility and risk management
- Innovation in data production
- International cooperation and global public goods
- Service delivery

⁴⁰ World Bank Knowledge for Change Program (KCP) webpage, at: <https://www.worldbank.org/en/programs/knowledge-for-change> (accessed 27 October 2019).

- Aid effectiveness
- Growth and job creation
- Poverty and shared prosperity

KCP also funds major policy research reports and World Bank flagship reports, such as World Development Reports and Global Financial Development Reports. By 30 June 2019, KCP III had allocated funding for 75 projects, with total funding of US\$13.0 million.⁴¹

Figure A2. KCP Key indicators and results



Source: KCP Annual Report 2019

⁴¹ Knowledge for Change Annual Report 2019, at: <http://pubdocs.worldbank.org/en/655891569436398224/KCP-Report-2019.pdf> (accessed 20 October 2019).

2. Indicators

The following 'key indicators' were extracted from the KCP Annual Report 2019.⁴² Figure A2 shows the results reported against each indicator.

1. Number of journal articles
2. Number of working papers
3. Number of policy notes and research reports
4. Number of data sets
5. Number of research tools
6. Number of conferences and events
7. Number of additional dissemination outputs
8. Number of researchers engaged
9. Number of institutions engaged
10. Number of citations
11. Number of impacts in World Bank operations
12. Number of impacts in partner governments

⁴² Knowledge for Change Annual Report 2019, at: <http://pubdocs.worldbank.org/en/655891569436398224/KCP-Report-2019.pdf> (accessed 20 October 2019).

Example 11. Norad’s NORHED

Programme/Fund	Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED)
Donor/s	Norad
Time frame	Phase 1: 2012–2016 Phase 2: 2016–2021
Budget	NOK 735 million (2013–2018)
Geographic focus	Global/LMICs
Thematic focus and goals	Capacity development of academic institutions in LMICs
Comparison with GCRF/Newton	Similar focus on institutional capacity development in universities, and academic collaboration with LMICs. Similar focus on measuring impact on LMIC policy development and innovation environments (uptake and influence) Greater focus on institutional capacity building within academic institutions rather than strengthening market systems, e.g. through collaboration with industry
Notable KPI practice	Research capacity building in LMICs

1. Programme background

The Norwegian Foreign Service and Norad make substantial allocations to research for development, particularly through the ODA budget. The NORHED programme is aligned with the Norwegian government’s long-term research plan for the period 2015-2024, which has the following three main aims:

- enhanced competitiveness and innovation
- tackling major social challenges
- developing research communities of outstanding quality.⁴³

Beneath the government-wide research plan is the Research Strategy for the Foreign Service and Norad. The objective of Norway’s research initiatives in the areas of foreign, security and development policy are geared towards overcoming

⁴³ Norwegian Ministry of Education and Research (2014), ‘Long-term Plan for Research and Higher Education 2015–2024’, at: <https://www.regjeringen.no/contentassets/e10e5d5e2198426788ae4f1ecbbbbc20/en-gb/pdfs/stm201420150007000engpdfs.pdf> (accessed 3 October 2019).

‘global challenges’ and promoting ‘knowledge-based policy-making’⁴⁴. The Strategy has the following four central objectives:

Intensified production and communication of relevant, high-quality research-based knowledge with potential to help resolve global challenges.

Norwegian research institutions have extensive expertise in the fields of foreign, security and development policy, and cooperate with leading international researchers and partners in developing countries.

Relevant research-based knowledge is made available to, and used by, decision-makers.

Stronger research capacity in developing countries. Definition of ‘research and development’ (R&D) can be defined as creative and systematic efforts to produce new knowledge (research) and find new applications for existing knowledge (development).⁴⁵

The Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED) was launched by Norad in 2012 with the overall goal of strengthening capacity in higher education institutions and research in low and middle-income countries (LMICs). The programme aims at contributing to a more skilled workforce, enhancement of knowledge, evidence-based policy and decision making, and greater gender equality in the long-term. The expected long-term impact of the programme is sustainable economic, social and environmental development in LMICs.⁴⁶

The NORHED programme aims at strengthening the capacity of higher education institutions in low and middle-income countries within six identified areas:

- Education and training;
- Health;
- Natural resource management, climate change and environment;

⁴⁴ Norwegian Ministry of Foreign Affairs, ‘Research Strategy for the Foreign Service and Norad 2017–2024’, at:

https://www.regjeringen.no/en/dokumenter/research_strategy/id2571111/

(accessed 3 October 2019).

⁴⁵ Ibid.

⁴⁶ Zsuzsa Jávorka *et al.* (2018) Mid-term Review of the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED) – Final Report (Brighton: Technopolis Group), at: <https://norad.no/en/toolspublications/publications/2018/mid-term-review-of-the-norwegian-programme-for-capacity-development-in-higher-education-and-research-for-development-norhed/> (accessed 3 October 2019).

- Democratic and economic governance;
- Humanities, culture, media and communication;
- Capacity development in South Sudan.

2. Indicators

NORHED has in place standard programme indicators that are easily accessed on their website.⁴⁷

1. Number of new/and number of revised Bachelor/Master/PhD programmes/modules supported by NORHED.
2. Number of Bachelor/Master/PhD programmes/modules supported by NORHED with gender perspectives included.
3. Capacity to enrol and graduate students in NORHED-supported programmes (Bachelor/Master/PhD).
4. Relevance of educational programmes and new graduates to local, national and regional needs and labour markets.
5. Number of academic staff with strengthened qualifications (Master/PhD) by relevant institutional level (institute/department/faculty) supported by NORHED
6. Ratio of qualified academic staff (Master/PhD) to students by relevant unit (institute/faculty/department) supported by NORHED
7. Retention rates of qualified academic staff at relevant unit (institute/department/faculty) supported by NORHED
8. Number of scientific publications (peer-reviewed and others)
9. Number and type of other dissemination activities
10. Uptake/influence of NORHED-supported research in public policies
11. Uptake/influence of NORHED-supported research findings/new technologies/innovations/solutions by local communities/civil society/private sector
12. Knowledge transfers within South-South and South-North networks and partnerships
13. Changes in the broader institutional environment at NORHED-supported institute/faculty/department which strengthened the capacity for education and research

⁴⁷ NORHED Standard Indicators, at: <https://norad.no/globalassets/import-2162015-80434-am/www.norad.no-ny/filarkiv/norhed/standard-indicators-norhed.pdf> (accessed 3 October 2019).

14. Access to libraries, laboratories and ICT for staff and students in NORHED-supported institutes/departments/faculties.

Example 12. USAID PEER Programme

Programme	Partnerships for Enhanced Engagement in Research (PEER)
Donor/s	USAID
Time frame	2011–2021
Budget	US\$ 100 million
Geographic focus	Global
Programme goals and focus	Collaborative research projects with developing country scientists and engineers who partner with American researchers. Addressing development problems and building capacity in LMICS
Comparison with GCRF/Newton	Similar focus on collaboration between domestic and LMIC academic institutions/researchers
Notable KPI practice	Capacity development in LMICs

1. Programme background

The USAID PEER programme is implemented in partnership with the US National Academy of Sciences (NAS) and managed by the USAID Center for Development Research (CDR). It was developed to support research projects jointly conducted by developing country scientists and researchers supported in the US by federal science agencies. With a funding ceiling of \$100 million, PEER operates over a period of performance of 10 years (2011–21).

Between 2011 and 2016, PEER supported 250 grants in 50 countries worldwide through Lab core and buy-in funding, primarily from USAID Missions. PEER’s target sectors are: biodiversity, health, agriculture, environment, water, disaster mitigation, climate, education, food security, and energy. United States Government partner organisations (NASA, NIH NOAA, NSF, USDA, USGS, and Smithsonian Institute) support awards to US partner scientists who serve as mentors to PEER researchers. In addition to ‘core’ funds put in annually by the Global Development Lab, PEER also accepts ‘buy-in’ funds from both central and field operating units across the agency.⁴⁸

2. Indicators

The following PEER performance indicators were extracted from the programme’s Mid-term Evaluation: PEER Indicators for the Science Objective Results Framework.⁴⁹

⁴⁸ Mid-Term Evaluation of the Partnerships for Enhanced Engagement in Research (PEER) Program (2017), QED Group, at: https://pdf.usaid.gov/pdf_docs/pa00mnjp.pdf

⁴⁹ Ibid.

1. Number of Lab-funded research results that influence programme or policy changes (made by the public sector, private sector, or development actors).
2. Number of PEER-funded researchers who receive follow-on funding.
3. US\$ value of PEER partner leverage.
4. Number of PEER research products (including publications, patents, technical presentations).
5. Number of PEER research collaborations/awards.
6. Number of PEER-funded researchers.
7. Number of research assistants supported by PEER-funded research.
8. Number of PEER PIs who join professional networks/associations.
9. Number of USAID or NAS lead science/technical convenings/forums held.
10. Number of meetings/workshops between PEER PIs and government/Mission reps.
11. Number of PEER awardees that receive follow-on funding through Evidence to Action (E2A) grants, or policy [...]
12. Number of Evidence to Policy (E2P) gatherings/trainings/workshops (and their outcomes).
13. Number of NAS lead financial and administrative trainings.
14. Number of new/improved classes/courses developed by PEER PIs.
15. Number of students trained (in new courses).

Example 13. Swiss R4D

Programme/Fund	Swiss Programme for Research on Global Issues for Development (r4d program)
Donor/s	Swiss Agency for Development and Cooperation (SDC): CHF 72 million Swiss National Science Foundation (SNSF): CHF 25.6 million
Time frame	2012–2022
Budget	CHF 97.6 million
Geographic focus	Global/LMICs
Programme focus	Research for development
Comparison with GCRF/Newton	Similar programme objectives and funding model for transnational research collaboration. Similar theory of change: use of research for development outcomes and impact; similar emphasis on importance of interdisciplinarity Focus on research partnerships/networks, rather than industry partnerships
Notable KPI practice	Research partnerships and collaboration using, for example: ‘Adherence to partnership guidelines: 11 KFPE partnership principles’ ⁵⁰

1. Programme background

The Swiss Agency for Development Cooperation (SDC) has aligned its research policy with the strategic objectives of Swiss International Cooperation, which means that:

- Research will increasingly be oriented towards global issues and public goods;
- ODA-funded research is international in scope with a clear focus on the reduction of poverty and global risks in developing countries;
- Global research partnerships are seen as an effective way for generating development-relevant results, elaborating adequate, context-specific solutions to global problems in developing countries and strengthening scientific and technological competencies in Switzerland and abroad.⁵¹

⁵⁰ KFPE Guide to Transboundary Research Partnerships: https://naturalsciences.ch/organisations/kfpe/11_principles_7_questions

⁵¹ SDC Institutional Website, ‘Research Policy and Strategy/Research Promotion’, at: <https://www.shareweb.ch/site/Development-Policy/topics-and-dp-briefs/topics/research-policy-and-strategy-research-promotio> (accessed 3 October 2019).

SDC has provided longstanding support to the Consultative Group on International Agricultural Research (CGIAR), as part of its multilateral engagement and research partnerships with emerging and developing countries. SDC's research desk, which is anchored in the Analysis & Policy Division, is responsible for SDC's activities related to research policy, research strategy, and coordination as well as for the strategic support of the r4d programme.⁵²

In response to global challenges, SDC and the Swiss National Science Foundation (SNSF) launched a joint, interdisciplinary, partnership-based research programme. The Swiss Programme for Research on Global Issues for Development (r4d programme) aims at solving global problems and securing public goods in developing countries within the framework of global sustainable development.

The r4d programme consists of five thematic modules and a thematically open module. In May 2018, 57 transnational research partnership projects had been carried out by research groups of more than 290 grantees in 50 countries.⁵³

The r4d programme has the following three main objectives:

1. To generate scientific knowledge and research-based solutions for reducing poverty and global risks in least developed, low and middle-income countries
2. To offer national and international stakeholders' methods and options for finding integrated, holistic approaches to solving problems
3. To enhance scientific skills and know-how in dealing with the complexity of global problems for the benefit of societies in developing and emerging countries.⁵⁴

2. Indicators

The r4d programme indicators were retrieved from its Mid-Term Review (March, 2018).⁵⁵

1. Number and citations of scientific peer-reviewed publications (together with some quality indicators)
2. Number of presentations at international scientific conferences outside of the r4d programme
3. Number of products for scaling-up and/or replication

⁵² Ibid.

⁵³ r4d Programme Website, at: <http://www.r4d.ch/r4d-programme> (accessed 3 October 2019).

⁵⁴ Ibid.

⁵⁵ Mid-term Review of the Swiss Programme for Research on Global Issues for Development (March 2018), at: http://www.r4d.ch/SiteCollectionDocuments/180328_r4d_MTR_FullReport_MgntResponse.pdf (accessed 3 October 2019).

4. Number of technological, social and political tools made available
5. Number and quality of research project teams
6. Number of triangular North-South-South collaborations
7. Number of concrete application examples from the projects
8. Number of presentations by projects partners in which the research results are discussed
9. Number of policy briefs and research-based recommendations (to targeted stakeholders, practitioners)
10. Reference to relevant international debates.
11. Number of North-South-South partnerships supported
12. Number of co-authored scientific publications (peer-reviewed articles) with authors from Switzerland and authors from Africa, Asia, and/or Latin America.
13. Degree of compliance with the 11 KFPE partnership principles
14. Number of co-authored scientific publications with authors from social and natural sciences
15. Number of promoted researchers (gender disaggregated)
16. Number of completed BSc, MSc, and PhDs with projects (gender disaggregated; in Switzerland/partner countries)
17. Number of involved Postdocs within projects in Switzerland and in partner countries
18. Number of participants in r4d skills events
19. Extent of evidence and research-based solutions for reducing poverty being produced through r4d projects
20. Evidence that relevant, use-inspired, systemic knowledge about trade-offs and options for tackling and solving problems feeds into policy debates and is shared with stakeholders who apply it
21. Research-based recommendations are taken into account /taken up by international organisations or/and other relevant stakeholders
22. Extent to which competence level of inter- and trans-disciplinary research is enhanced
23. Level and intensity of different stakeholder exchanges in the research process.

Example 14. The US Global Development Lab

Programme/Fund	US Global Development Lab
Donor/s	USAID
Time frame	2014 – present
Budget	US\$ 437,185,267 (2014–2017)
Geographic focus	Global/US collaboration with LMIC countries
Programme goals and focus	Innovation Hub: Research and innovation to address global development challenges
Comparison with GCRF/Newton	Relevant in terms of measurement focus, but different operating model. The Lab is a USAID Bureau, with five centres GCRF/Newton does not have goal of integration of science practice within government, therefore stronger focus on internal institutional capacity building in the Lab's framework
Notable KPI practice	Institutional capacity building for science and technology (Research uptake and influence)

1. Programme background

The US Global Development Lab was created as a USAID bureau in April 2014. The Lab was intended to institutionalise and improve USAID's ability to harness and leverage science, technology, innovation, and partnerships in addressing development issues and goals worldwide. The Lab supports projects and activities and announces, issues, and manages awards—or funding opportunities—for innovators to propose new ideas, approaches, and technologies. The Lab also incorporates external (i.e., non-USAID) contributions into its programming.⁵⁶

The US Agency for International Development's (USAID) Global Development Lab (the Lab) has programmes and activities for each of its five strategic objectives: science, technology, innovation, and partnerships (STIP) and agency integration of STIP. The Lab comprises five centres and two support offices. The centres house more than 25 Lab programmes focused on issues such as development research, digital development, innovation ventures, and private sector engagement. The Lab's funding for its programmes has generally been decreasing, as have its staffing numbers, since fiscal year 2015. USAID allocations of programme funds to the Lab

⁵⁶ US Government Accountability Office (2018) 'USAID Leverages External Contributions but Needs to Ensure Timely Data and Transparent Reporting'.

– Report to Congressional Committees – USAID Global Development Policy Lab, November 2018, at: <https://www.gao.gov/assets/700/695266.pdf> (accessed 27 October 2019).

decreased from US\$170.7 million in fiscal year 2015 to US\$77 million in fiscal year 2017.⁵⁷

2. Indicators used

USAID Global Development Lab's Performance Indicators for Objective and Intermediate Results Level, Fiscal Years 2016-2017: 'Description of USAID Global Development Lab's Performance Indicators for Objective and Intermediate Results'⁵⁸

A) Science

1. Number of high-impact programme or policy changes made by public sector, private sector, or other development actors that are influenced by Lab-funded research results or related scientific activities.
2. Number of highly influential scientific assessments and influential scientific information disseminated by the Agency.
3. Number of operating units reporting on research activities and results through key issue narratives in the operational plan.
4. Number of USAID operating units with increased R&D investment.
5. Agency investment (in dollars) in applied and development research.
6. Number of lab-funded researchers who receive external funding results level.
7. Value (in dollars) of external investment in Lab-funded researchers.
8. Value (in dollars) of partner leverage on research programming results level.
9. Total number of programme or policy changes made by public sector, private sector, or other development.

B) Technology

1. Number of actors that are influenced by Lab-funded research results or related scientific activities.
2. Number of high potential program or policy changes made by public sector, private sector, or other development actors that are influenced by Lab-funded research results or related scientific activities.
3. Number of (new) market-level improvements in the enabling environment or ecosystem for digital and data services.
4. Number of known implementation cases of USAID operating units using digital/data for decision making.

C) Innovation

⁵⁷ Ibid.

⁵⁸ Ibid, p. 56.

1. Number of market-level improvements in the enabling environment or ecosystem for digital financial services.
2. Number of key USAID systems, policies, and guidance documents changed to promote the use of digital tools and data analysis for decision making.
3. Number of operating units supported by GeoCenterPLUS and real time data tools, approaches, and mechanisms to facilitate data for decision making.
4. Number of agency policies/systems/guidance changed to facilitate data for decision making.
5. Total value (in dollars) of external resources leveraged by Lab partners to address a development challenge.
6. Number of high-impact innovations in the portfolio.
7. Number of high potential innovations in the portfolio results level.
8. Number of innovation methods that reach stated design goal at conclusion.
9. Number of system actors engaged in innovation methods results level.
10. Number of smart innovation methods adopted by agency operating units.

D) Partnerships

1. Total dollar value of private and public capital catalysed for early-stage entrepreneurs as a result of USAID support.
2. Percentage of missions that the Center for Transformational Partnerships assisted with becoming 'private sector engagement leader missions' according to 'leading private sector engagement practices' index.
3. Percent of eligible missions that have medium to high private sector engagement readiness scores in the current fiscal year based on private sector engagement activities they put in place over the past 2 years.
4. Ratio of total resources leveraged by the Lab to the total Lab obligations for a given fiscal year level.
5. Total value (in dollars) spent on resources mobilised for targeted systems/platforms results level.
6. Total USAID mission obligations (in millions of dollars) to partnerships with a minimum of 1:1 private sector leverage for a given fiscal year.
7. Total dollar value of early-stage private investment capital committed alongside USAID support results level.

E) Agency integration

1. Number of operating units that have integrated STIP⁵⁹ at the strategic, programmatic, and organisational levels.
2. Number of agency staff that have participated in Lab STIP trainings, events, fellowships, and exchanges intermediate results level.
3. Percentage of agency funds attributed to STIP in operational plan.
4. Value (in dollars) of operating unit obligations attributed to science, technology, innovation, partnerships intermediate results level.
5. Value (in dollars) of operating unit obligations attributed to science, technology, innovation, and research.
6. Value (in dollars) of operating unit obligations attributed to public-private partnerships intermediate results level.
7. Number of piloted operational innovations with evidence of effect.
8. Number of operating units that have submitted a science, technology, innovation key issue narrative intermediate results level.
9. Number of operating units that have submitted a public-private partnership key issue narrative intermediate results level.
10. Number of operational innovations tested and adopted by at least one agency operating unit.

⁵⁹ The US Agency for International Development's (USAID) Global Development Lab has programs and activities for each of its five strategic objectives: science, technology, innovation, and partnerships (STIP).

Annex B: Search protocol

Search protocol for BEIS review

1) Research aims and questions

Aim: To identify comparable research funds that use Key performance indicators (KPIs) to monitor research for development impact.⁶⁰ This will help BEIS to position the GCRF and Newton Fund indicator development in comparison with others working in this field.

Key questions:

1. What are other funds/ers doing on indicators to assess research for development?
2. How does this compare to the KPI status of GCRF and Newton Fund?

Intended use: To be published as an independent assessment, which could be subsequently referenced by staff of BEIS.

Table B1: Defining the user context using PICOC⁶¹

Population	BEIS: the GCRF and the Newton Fund
Intervention	KPIs used to measure the impact of ODA-funded research for development
Comparison	The KPI practice of other key donors compared to the GCRF and the Newton Fund
Outcome	Appropriate KPIs for research for development
Context	Donors of ODA-funded research for development

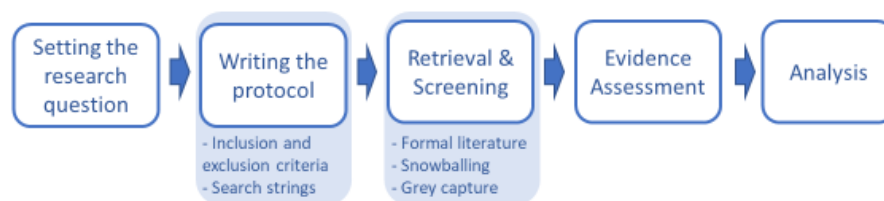
⁶⁰ 'Research for development impact' is used here to refer to research that is funded through Official Development Assistance (ODA) with the explicit aim it should contribute to changes that benefit poor people. It is also sometimes referred to as research for development (abbreviated to R4D).

⁶¹ This model is recommended in: Barends, E., Rousseau, D.M. & Briner, R.B. (eds). (2017). CEBMa Guideline for Rapid Evidence Assessments in Management and Organizations, Version 1.0. Center for Evidence Based Management, Amsterdam.

2) Method

In order to be sufficiently robust and transparent, the review will follow an adapted version of a rapid evidence assessment:⁶² this provides a set of core principles and a more structured approach to conducting a literature review, while at the same time offering greater flexibility and reflexivity in the process.⁶³ The latter is thought to be particularly appropriate given that the relevant evidence will exist predominantly outside of formal peer-reviewed channels. The identification of relevant material will therefore be conducted through a combination of expert advice and snowball sampling. Broadly, the key stages of the review are:

Figure B1. Stages in a literature review



3) Inclusion/Exclusion criteria

To ensure that the review is sufficiently transparent and structured, it will employ a set of inclusion/exclusion criteria for studies and donors/funders used to identify KPI practice. The criteria laid out in Table B2 below follows recommended practice in REAs, but has been adapted to include a systematic criteria for choosing which donors and funders to focus on. The review will use the OECD's Creditor Reporting System to identify the 10 largest donors of 'research/scientific institutions' (see Figure B2). It will then conduct more targeted country or donor specific searches of research funds and programmes. These funds and programmes will be identified through reviewing donor annual reports and evaluations; interviewing experts; searching scientific institution websites and databases.

Table B2: Inclusion/Exclusion criteria

⁶² A rapid evidence assessment is a toolkit that was developed by the civil service, and similar to the one outlined for international development by Hagen-Zanker *et al.* (2013) *How to do a rigorous, evidence-focused literature review in international development: A guidance note*, Working Paper, Overseas Development Institute, London, UK.

⁶³ This will provide a robust assessment, although it will not have the wider systematic search and therefore the increased confidence that comes from excluding and screening large numbers of formal /grey literature that is undertaken for a systematic review.

	Inclusion criteria	Exclusion criteria
Language	English only	Not in English
Publication date	2009–2019	Pre – 2009
Publication format	Journal articles, institutional reports, programme evaluations and reviews, working papers from relevant research organisations and think tanks; unpublished literature and websites of donor organisations (e.g. DFID, IDRC, World Bank)	<i>No formats excluded due to focus on assessing practice rather than existing evidence</i>
Aim of study	Studies must assess impact of research for development using KPIs; OR aim to contribute towards KPI practice in ODA-funded research for development	Studies and literature that do not address the application of KPIs for ODA-funded research for development
Practice of donor research funds and programmes	Largest 10 funders of research for development in 2017, determined through the OECD’s Creditor Reporting System (CRS) Funds with indicators published online	Donors & funds that fall below the largest 10 for ‘research/scientific institutions’ Funds without publicly accessible indicators

4) Search strategy

While more typically a search strategy would involve identifying relevant academic databases and journals, in this case there is a limited pool of relevant organisations (i.e. large organisations with broad portfolios of research for the development field). The review will therefore include evidence searches on large databases like Google Scholar and J Stor, but the focus will be on the identification and assessment of practice in a few key funders and donors of research for development. As a result, the review will use interviews with leading experts in this field to pivot its search for relevant studies and literature (as outlined in Table B3) through a snowball approach.

As noted, the review will aim to focus its assessment of KPI practice on the largest ODA funders of ‘research/scientific institutions’, drawing from data available in the OECD’s Creditor Reporting System (CRS). This will be supplemented by suggestions from the key informants of comparable research funds that demonstrate notable KPI practice in this field. See Section 5 (Questions for Key Informants).

4.1) Search strings and phrases

The review will use a Boolean method to develop and apply the most relevant search strings by applying the AND/OR functions to key words and phrase searches. Below in Table B3 are examples of the search strings that will be applied. These will be tested and revised through search iterations in the data collection process.

Table B3: Search strings for testing

'Measuring research impact' AND ('international development' OR 'global development')	('ODA-funded research' OR 'aid funded research') AND impact AND (KPIs OR 'key performance indicators')	Donor X (e.g. DFID) AND research AND impact
'Measuring research impact' AND ('international development' OR 'global development') AND indicators	('ODA-funded research' OR 'aid funded research') AND 'measuring impact'	Specific Research Fund X AND ('research impact' OR 'measuring impact')
(KPI or 'Key Performance Indicator') AND 'international development research' AND 'research impact'	'ODA-funded research' AND 'development impact'	Donor X (e.g. DFID) AND ('Key performance indicators' or KPI) AND 'research impact'
('Key performance indicators' or KPI) AND 'research impact' AND ('international development' OR 'global development')	('Donor funded research' OR 'ODA-funded research') AND 'development impact' AND indicators	Specific Research Fund X AND indicators AND impact

5) Suggested questions for key informants

This research aims to identify good practice for developing KPIs in ODA-funded research programmes, to help BEIS position the GCRF and Newton Fund within a wider community of practice. Experts with specialised knowledge of KPI practice in research for development funds will be interviewed through a semi-structured approach. In addition to sharing their technical knowledge they will be requested to recommend resources and key actors (funds/donors/research organisations/other experts) to be included in the review. Knowledge will be drawn from the experts (see list on p. 3) in the following areas:

- Dominant practice for KPIs in research for development funds.
- Challenges associated with measuring the impact of research on development with KPIs/challenges and weaknesses associated with dominant KPI practice.
- Innovative, good or 'best practice' for measuring impact of development research with KPIs.
- Example cases: donors, funds and/or programmes that are employing KPIs to measure the impact of research on development.
- Nature and strength of the evidence base for 'best practice' in KPIs for development research.
- Recommended resources, cases or actors to include in the review.

Annex C: List of key informants

1. **Julian Barr**, Itad
2. **Fred Carden**, formerly of IDRC's Evaluation Dept.
3. **Boru Doithwaite**, formerly of WorldFish (part of CGIAR)
4. **Tom Ling**, RAND
5. **Zenda Ofir**, Independent Evaluator (part of RQ+ study)
6. **Andrew Shaw**, DFID

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