Swiss Programme for Research on Global Issues for Development

Swiss Programme for Research on Global Issues for Development (r4d programme)

Innovation in Agricultural and Food Systems for Food Security

Call for Proposals

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Foreign Affairs FDFA

Swiss Agency for Development and Cooperation SDC

SWISS NATIONAL SCIENCE FOUNDATION

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1. Introduction

1.1 Overarching goals

In light of the increasing challenges simultaneously adapting to global change, alleviating poverty and maintaining geopolitical and economic stability, research and innovation are decisive factors for sustainable global development in both poor and in rich countries.

The Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation SNSF are offering a new funding scheme for development relevant research on global issues. The main focus of the "Swiss Programme for Research on Global Issues for Development" is the generation and application of innovative, transnational research results in policy and practice. The reduction of poverty and global risks, as well as the provision of public goods and services such as health, climate stability, biodiversity and water, food security, human security and, market and financial stability within the normative and conceptual framework of global sustainable development, is central to the focus of the programme. Inter- and transdisciplinary research partnership projects with a problem- and solution orientated approach will be funded. The implementation of the research results into policy and practice are of high significance and is considered an integral part of the research activities.

The programme consists of six modules. In the thematically open module researchers are free to choose their own research topic and to submit bottom-up projects free of thematic specifications. The other five thematic modules address the following themes:

- Causes of and solutions to social conflicts in the context of weak public institutions or state fragility;
- Employment in the context of sustainable development;
- Sustainable management of ecosystems for the provision of ecosystem services;
- Innovation in agricultural and food systems for food security;
- Provision systems and financing mechanisms in the public health sector.

Detailed information on the "Swiss Programme for Research on Global Issues for Development" and its structure can be found on the following website: www.r4d.ch.

2. Fourth thematic call

This call document concerns the fourth of the five thematic research modules. The objectives and key questions of the thematic module are outlined in the second part of this document. Projects should give due consideration to the gender perspective if it is relevant to for the research topic, question or approach.

A budget of CHF 14.1 million has been made available for the thematic research module. The individual projects will have a running time of six years. Each project will be assessed after three years. The second research phase of three years will only be funded if the assessment of the project is positive.

2.1 Concept

One of the United Nations Millennium Development Goals is the eradication of poverty and hunger; by 2015, the proportion of people suffering from hunger should be halved. Despite considerable success in poverty reduction, the food security crisis in 2007-2008, which pushed an additional 100 million people into poverty, highlighted the intrinsic fragility of systems, notably because of the global interconnectedness and dependency on trade. To meet the goal of global food security, the world now faces various challenges:

1. A growing world population. To feed the 9 billion people expected by 2050 (2 billion more than present), 70 to 100% more food will be needed than at present,
2. An increasing demand for processed food (meat, dairy etc.) as per capita wealth increases,
3. Increasing use of agricultural products and land for energy production,
4. Increasing threats caused by climate change,
5. Greater competition for land and water.

Meeting the growing demand for food in a changing global context and in an environmentally and socially sustainable way demands innovative approaches with respect to food production, processes, distribution and access. The emphasis of this thematic research module is therefore on the improvement of agricultural production and innovation systems in view of fostering a political, economic and societal framework for global food security.

2.2 Topics and research questions of particular interest

As discussed in section 1.1 above, all five thematic calls, including this call, focus on issues pertaining to the reduction of poverty and global risks as well as the provision of public goods. Proposed research on these issues must aim for larger-scale comparisons in order to produce findings that are relevant to several or many developing countries and world regions. The following 3 topics are of particular interest in this thematic call.

Topic 1: Sustainability of agricultural and food systems, natural resources and resilience

In view of the increasing global demand for food, it is important to investigate strategies and measures to increase global agricultural output and resilience. Several barriers exist for guaranteeing current and future global food security, including limited land and water resources, lack of knowledge or means of the agricultural producer to increase yields in a sustainable manner, changing climate conditions and misguided or dysfunctional public policies. At the same time, agriculture is responsible for negative environmental impacts including erosion, soil and water pollution and significant CO_2 emissions. Resource limitations require a shift towards increased resource use efficiency and a better understanding of the implicit trade-offs and impacts of the competing claims on natural resources for food security (e.g., the water-energy-food security nexus).

Employing agro-ecological approaches to sustainably intensify agricultural production, in addition to improving diversity within agricultural systems, is one means of increasing the resilience, productivity, and reliability of the food supply.

A great part of food grown is lost or wasted before and after it reaches the consumer. Among other reasons, this can be due to harvesting techniques and inefficiencies in storage, transport and distribution systems. The reduction of post-harvest losses is one important solution in addressing global food security.

General questions with regard to this topic are:

1. How can the productivity – of smallholder agricultural systems in developing countries in particular – be enhanced while at the same time reducing negative environmental impacts and strengthening ecosystem services? What are the synergies and trade-offs between different land use objectives and what are the resulting opportunities and risks for food security?
2. How will food security be affected by competing water uses and changing water availability due to climate change? How can agricultural production become more water and land efficient?
3. How can integrated food-energy systems contribute to food security in developing countries and what are the options for more energy efficient agricultural systems?
4. Which innovative crops and cropping systems can contribute to an increased diversification and resilience of agro-ecosystems?
5. What innovative approaches reduce post-harvest loss with regard to harvest techniques, storage, and transportation and distribution systems?

Topic 2: Agricultural innovation, extension and research into use

Traditionally, development cooperation agencies have supported the piloting of innovative projects in agricultural research in developing countries. Often, however, a follow-up effort that would allow for the scaling up of promising programmes, technologies and projects has not been pursued for various reasons. This call therefore aims to address both sides of the scaling up issue through the entire innovation process by (1) identifying barriers and opportunities for site-specific development and for investment in value chains; and (2), providing support for the up-scaling of agricultural research for development that promotes innovation (local, traditional, technological) and inclusiveness (i.e., greater stakeholder involvement that includes members of civil society, rural advisory and extension services, the private sector, women, youth, etc.) in agricultural systems.

General questions with regard to this topic are:

1. How can functional agricultural innovation systems be implemented in practice?
2. How can a culture of learning, monitoring and impact assessment at different levels and scales in agricultural innovation systems be strengthened?
3. How should modern rural advisory services be designed to respond to the rapidly changing needs and demands of smallholders, particularly women and youth?

Topic 3: Governance and policies for the future world food system

Given its multiple functions, agriculture faces many challenges in the coming century. Among them are the challenges of intensifying production while maintaining environmental integrity, ensuring a fair distribution of food resources, and reducing pre- and post-harvest losses. At the same time, traditional low-input, small-scale, but labour intensive farming systems are giving way to large-scale, high-input and mechanised production systems. This agricultural transformation process is likely to intensify in the future and will imply fundamental changes in the livelihoods of smallholders in developing countries. Evidence-based information on the likely effects of this transformation for people and the environment must inform agricultural and rural development policies to allow for pro-poor growth.

Resilience of agricultural systems also depends on the capacity of agricultural communities to absorb and withstand extraordinary stress events. As such, there is a need to look at this issue from the perspective of agricultural communities whose sustainability and resilience are linked to their capacity to access and own assets both tangible and intangible, and their ability to transform these assets productively, e.g., food for consumption and agricultural products for sale. Topics under this area may include

land tenure issues and equity in access to natural resources and land (including access for women, youth and minority groups).

Commodity price volatility (of cereals and other staple crops) with persistent deleterious effects on food prices in developing countries has been increasingly problematic in recent years. It appears, however, that current policy decisions regarding food price volatility seem to be ad hoc responses. Regulatory processes, e.g. policies to reduce food speculation or to build up larger grain reserves, need to be explored in terms of market and food price volatility consequences. Policies, strategies and interventions must be designed to allow for a paradigm shift from mere food production toward an integrated supply system that can also improve nutrition and health.

Particular questions that go in this direction are:

1. Where and at what pace will structural transformation of agriculture take place and how will it affect food production, the livelihoods of smallholders, and rural development in developing countries?
2. What agricultural policies are needed to steer and support a pro-poor agricultural transformation and what is the future role of smallholders in developing countries in the local and global food system?
3. What kind of trade mechanisms and policies at national, regional and international levels favour smallholders in developing countries and improve food security and resilience?
4. Which socio-economic structures are needed to ensure a sustainable basic food provision for all people?
5. How can innovative agricultural planning systems ensure optimal global food distribution, considering local resource potential?

3. Eligibility requirements, project outlines

3.1 General provision

If no specific rules are mentioned, the Funding Regulations of the Swiss National Science Foundation shall apply.

3.2 Eligibility

- All researchers working at research institutions in Switzerland
- All researchers originating from a developing country and based at an institution in Africa, Asia and Latin America are eligible (according to the country list in annexe 7).
- The scientific personnel must be employed at an institution that does not conduct research for commercial purposes. Subcontracting to commercial service providers is permissible, provided they are not co-applicants.

Switzerland	Developing Countries
_ Universities _ ETH & institutions of the ETH Domain _ Universities of applied sciences, universities of teacher education _ Swiss federal research institutions _ Other research institutions that do not conduct research for commercial purposes.	_ Institutions of higher education, universities _ Public research institutions _ Other research institutions that do not conduct research for commercial purposes.

3.3 Research partnership projects

_ Only "research partnership projects" are funded. Such projects consist of at least one Swiss research group and at least two research groups from two different developing countries of group 1. The participation of further groups from Switzerland and from developing countries is highly recommended.

_ The following table gives an overview of the eligible developing countries in Africa, Asia and Latin America (see annexe 7, country list based on the OECD-DAC list[1]):

Mandatory	Optional
Country group 1	**Country group 2**
Least developed countries, low income countries and lower middle income countries in Africa, Asia and Latin America Cuba as a SDC priority country	BICS and upper middle income countries in Africa, Asia (without Turkey) and Latin America (without the Caribbean) that play a major role with regard to global challenges and the reduction of global risks - for instance, Brazil, India, China, South Africa and others. Applicants must briefly describe the country's regional significance for the topic in the proposal.

The countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan) and South Caucasus (Armenia, Azerbaijan, Georgia) are eligible to participate in the specific research programme SCOPES (Scientific co-operation between Eastern Europe and Switzerland). Therefore research groups from these countries do not qualify for country group 1, they are part of country group 2.

The so-called trilateral co-operation "North-South-South" may be important for dealing with "global issues". Therefore, research partners from the BICS and upper middle income countries (group 2), which have a regional importance with regard to global challenges, may optionally be integrated into research partnership projects.

[1] OECD-DAC list:
http://www.oecd.org/dac/stats/DAC%20List%20used%20for%202012%20and%202013%20flows.pdf

The existing DACH Agreement between the SNSF, the Deutsche Forschungsgemeinschaft DFG and the Austrian Science Fund FWF (Money Follows Researcher) is not applicable to the projects of the Swiss Programme for Research on Global Issues for Development.

3.4 Project management

- The responsible applicant must be employed at a Swiss research institution.
- The responsible applicant must be able to show that the project will be based at a Swiss institution during the entire research phase of six years. The employment status of the main applicant will be a criterion in the evaluation of the pre- and full proposal. It is not mandatory for a higher education institution to provide an institutional guarantee.
- The project must be developed with and co-led by at least one applicant from a country of group 1.

3.5 Duration

The running time of the research projects is six years. An initial amount will be awarded for the first three years. After this period, an interim assessment will be conducted. If the assessment is positive, the project may be extended for another three years. The research plan in the proposal submitted by the researchers has to cover the entire period of six years.

3.6 Funding

The following costs are covered in the projects:

- Salaries:
  1. Doctoral candidates
  2. Academics or senior researchers doing research in the project (employees with an academic degree from an institution of higher education [master, doctoral degree])
  3. Technicians
  4. Assistants
  5. MSc students (only partners in developing countries)
  6. Coordination costs
- Communication and implementation activities
- Equipment of enduring value (only in developing countries)
- Research funds (consumables, travel costs, room and board costs, field expenses)
- The salaries of Swiss researchers comply with the currently valid SNSF rates. The salaries of Swiss applicants cannot be covered. For researchers based in developing countries, the local prevailing salaries apply. Salaries and research funds may be used for research, co-ordination, communication and implementation.
- Overhead costs for Swiss research institutions are not eligible
- Overhead costs for research institutions in countries of group 1 can be included into the project budget and must not exceed 10% of their total budget

_ The following two financial conditions apply to all research partnership projects:

1. At least 50% of the academic personnel (in person months) per project resides in poor developing countries (group 1).
2. At least 40% of the approved amount must go to the partners from country group 1.

Deviations from the above-mentioned rules are permissible in exceptional cases if adequate reasons can be given. At least one criterion, however, must be met under all circumstances.

_ The financial scope of a project depends on the objectives and the methodical approach. The ideal scope is CHF 400,00 – 600,000 per year, i.e. approximately CHF 3 million per project. For larger projects, it is advisable to split the amount. It should be taken into account that proportionally higher funds are used for the first phase than for the second phase, a large portion of which is devoted to scientific synthesis and implementation.

_ 10% to 15% of the amount awarded to a project must be used for application and communication. The corresponding application and communication work must be described in detail in the proposal (see annexe 3). Furthermore, it needs to be shown how the knowledge exchange with the relevant stakeholders in Switzerland and in the developing countries is to take place throughout the duration of the project. A Results Framework, a Pathways to Impact and an Application and Communication Strategy must be submitted for this purpose (see annexe 2, 3 and 4).

3.7 Interdisciplinarity and KFPE principles

_ Research partnership projects are interdisciplinary. In particular, interdisciplinary collaboration between the social, natural and engineering sciences is encouraged and will be assessed positively in the evaluation of the proposals.

_ The applicants must be able to show that the individual teams within a project are co-operating closely and that the results of the project add significantly more value than individual research would be capable of doing.

_ Applicants are requested to follow the guidelines for research partnerships with developing countries, namely the 11 revised principles of the Commission for Research Partnerships with Developing Countries (KFPE), which is electronically available in various languages on the KFPE website: http://www.kfpe.ch/11-Principles

3.8 “Thematic research modules” versus “thematically open research”

_ Project proposals cannot be submitted in both funding schemes, thematically open research and thematic research modules. Projects should preferably be submitted in one of the five thematic research modules. Projects that thematically fit two modules may only be submitted in one module.

3.9 Intellectual property rights und open access principle

_ Every product created by the research shall be subject to the open access principle. Hence, third parties shall have a free and absolute right to use each product insofar as they do not have any commercial interests.

_ Before filing an application for intellectual property rights to a research result (through trademark, design, patent, etc.), prior approval needs to be obtained from the SDC. The SNSF shall be informed accordingly.

_ The SNSF undertakes to assert the above-mentioned open access principles by means of a corresponding statement in the ruling and to ensure that third parties do not obtain any intellectual property rights.

3.10 Reporting

An initial financial and a comprehensive progress report based on the Result Framework and an updated fact-sheet have to be submitted after 18 months and subsequently each year. The progress reports are addressed to the main stakeholders (research community and development cooperation) and the fact sheet must be ready for online publication on www.r4d.ch. The requested output data on mySNF have also to be updated regularly.

4. Submission procedure

Pre- and full proposals must be submitted online via the *my*SNF portal. User-registration can be obtained via the *my*SNF homepage: www.mysnf.ch.

The call documents and the relevant provisions, regulations and guidelines for the submission of proposals via the *my*SNF portal can be downloaded from the website of the Programme www.r4d.ch and the SNSF. The evaluation procedure will be conducted in two stages (pre-proposals, full proposals). Both the pre- and the full proposals must be submitted in English since they will be evaluated by internationally recognised experts.

If you do not already have a *my*SNF account, you need to register before submitting a proposal on www.mySNF.ch. Registration for a login for electronic submission requires five working days.

4.1 Pre-proposals

The deadline for submission is **13 September 2013**.

The pre-proposal should provide an outline of the planned research project and has to cover the **entire period of six years** with more details of the planned activities for the first three year period. Furthermore information on the following points have to be developed:

Data to be entered directly in the *my*SNF portal:

_ Basic data and abstract

_ National and international co-operations / Partners

_ Estimation of financial support required for salaries and running costs for the entire period of six years (budget)

Documents to be uploaded in PDF format on the *my*SNF portal:

_ Project description (max. 8 pages)

- Research hypotheses and objectives of the project
- State of research in the field / link to international and national policy debates

- Methodology
- Organisation of research groups in research partnership projects
- Pathways to impact and stakeholder involvement (annexe 2)
- Application and Communication Strategy (annexe 3)
- Respect of the 11 revised KFPE principles (http://www.kfpe.ch/11-Principles/)
- Short version of a Results Framework (see annexe 5)

The project description mentioned above must be submitted using the template to be found on the *my*SNF portal. It should not be longer than eight pages (Including Results Framework, excluding publication lists of the team and third parties).

_ CV and list of the ten most relevant publications in the project's field of study (no more than two pages) of the individual applicants.

_ Written confirmation by the partners from developing countries that they will participate in the project (no legally binding commitment at the pre-proposal stage).

4.2 Full proposals

In the second stage of the submission procedure the Review Panel will invite the authors of the selected pre-proposals to submit detailed full proposals online via the *my*SNF portal in accordance with standard SNSF rules and guidelines. The review panel may ask further information. The full proposal has to cover the entire period of six years with more details of the planed research for the first three year period.

Full proposals must contain the following information:

Data to be entered directly in the *my*SNF portal:

_ Basic data and abstract

_ National and international co-operations

_ Estimation of financial support required for salaries, running costs and communication and implementation (budget)

Documents to be uploaded in PDF format on the *my*SNF portal:

_ Project description (max. 30 pages)

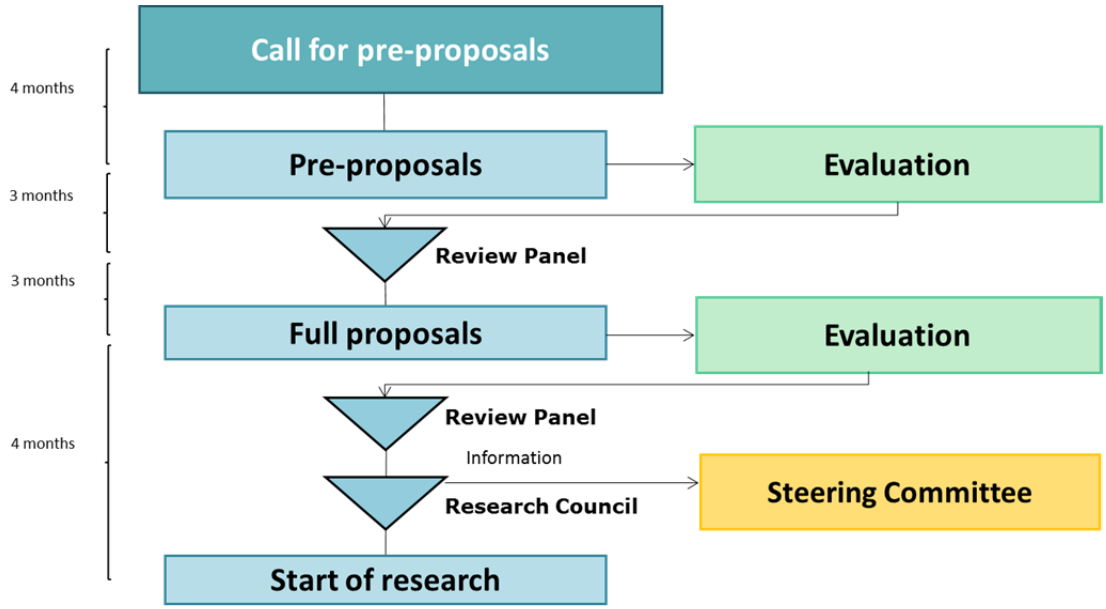
- Research hypotheses and objectives of the project
- State of research in the field / link to international and national policy debates
- Methodology
- Timeframe and milestones
- Organisation of research groups in research partnership projects
- Pathways to impact and stakeholder involvement
- Application and Communication Strategy
- Results Framework

_ A binding confirmation from the partners in developing countries must be submitted together with the proposal.

_ CV and list of the ten most relevant publications in the project's field of study (no more than two pages) of the individual applicants.

The Research Council will make the final decisions on the proposals in July 2014. Hence, research work could begin in August 2014 at the earliest. The research work must start in January 2015 at the latest.

5. Selection of projects; evaluation criteria



Pre- and full proposals will be evaluated by the Review Panel according to a peer review procedure based on external written expertise. Responsible applicants may be invited to present their project proposal before the Review Panel. The decisions of the Review Panel must be endorsed by the Research Council of the SNSF.

The Secretariat of Division Programmes will check that the proposals meet the formal criteria such as completeness, adequate formal presentation and submission within the deadlines. Pre-proposals and proposals that do not meet these formal criteria will not be processed further.

The evaluation of pre-proposals and full proposals is based on the following criteria:

5.1 Scientific quality criteria

_ Scientific significance, originality and topicality of the project

_ Suitability of the methods chosen and feasibility

_ Applicants' scientific track record and quality of the consortium

5.2 Criteria of relevance for development

_ Extent to which the intended research results are aimed at solving global problems

_ Potential for transferring research results to policy-making or practice

_ Quality of communication and implementation strategy for potential users / stakeholders

_ Potential economic, environmental or societal impact of the project

5.3 Budget and governance

_ Management scheme

_ Cost-benefit ratio (efficiency)

_ Compliance with the 11 revised KFPE principles

5.4 Evaluation and selection

Pre- and full proposals are reviewed by international peer reviewers. Based on these reviews and their own evaluation, the Review Panel will award two marks: a first mark for the "scientific quality" block, a second mark for the "relevance for development" block. The range of awardable marks is as follows:

A: Outstanding, AB: excellent, B: very good, BC: good, C: average, D: poor.

The first priority will be to support projects that have been awarded an A, an AB or a B in both areas. The second priority will be to support projects that have been awarded a BC or a C in one or in both areas. Projects rated D in one or in both areas will not be supported. A low mark in one area cannot be compensated by a particularly high mark in the other area.

6. Contact persons and information

For questions concerning the submission and evaluation procedure for pre-proposals and full proposals, please contact the programme co-ordinator Dr. Zora Urech, r4d@snf.ch or 031 308 22 22.

For questions on financial matters (salaries and eligible costs), please contact the Head of Finances, Roman Sollberger, r4d@snf.ch or 031 308 22 22.

Technical help with mySNF and electronic submissions
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E-mail: mysnf.support@snf.ch

*my*SNF homepage: www.mysnf.ch

7. Organisation

7.1 Members of the Review Panel

Dr. Anne-Lucie Wack, Agropolis Foundation, France (President)

Professor Dr. Hans Peter Binswanger-Mkhize, Institute for Economic Research on Innovation, Tshwane University of Technology, Tshwane

Dr. Eve Fouilleux, Faculty of Law and Political Science, University of Montpellier

Dr. Laura Hammond, Department of Development Studies, School of Oriental and African Studies, London

Professor Dr. Hermann Waibel, Institute of Development and Agricultural Economics, Leibniz Universität Hannover

The panel will be completed with 2-3 additional experts, which will be announced on the r4d website.

7.2 Representative of the SDC

Marlene Heeb, Focal Point Food Security, SDC

7.3 Representative of the Research Council

Professor Dr. Stefanie Hellweg, Institute for Environmental Engineering, ETH Zürich

7.4 Programme Coordinator SNSF

Dr. Zora Lea Urech, Swiss National Science Foundation (SNSF), Berne

8. Time schedule

At present, the following schedule is envisaged for this research module:

Call for pre-proposals	28 May 2013
Submission of pre-proposals	13 September 2013
Invitation to submit full proposals	January 2014
Submission of full proposals	April 2014
Final decision on full proposals	July 2014
Start of research	August 2014

Annexes

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Project description for pre-proposal of the research module:

Innovation in Agricultural and Food Systems for Food Security

The project description must fulfil the following criteria for a successful submission:

- *The project description is to be submitted in English,*
- *Pre-proposals must **not exceed eight pages**, including the points 1-8 (excluding cover-page and bibliography),*
- *A minimum of point 10 font size and 1.5 line spacing must be used,*
- *In general, the research plan should not contain any annexed documents,*
- *Pre-proposals must be submitted using this form through mySNF (deadline: **13 September 2013)**.*

Please list five publications from third parties (not yours) considered relevant as stepping stones for the research envisaged:

1.
2.
3.
4.
5.

Please list the most important publications of your team (not more than ten):

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Please indicate to which of the following research topics your project belongs to (multiple topics are possible):

	Research topic 1: Sustainability of agricultural and food systems, natural resources and resilience
	Research topic 2: Agricultural innovation, extension and research into use
	Research topic 3: Governance and policies for the future world food system

1. Research hypotheses and objectives of the project	Specify the research hypotheses and the concret objectives that you aim to achieve during the lifetime of the project and what will be added to previous knowledge.
2. State of research in the field and link of your research to international and national development debates and policies	Set out the scientific background and basis of your project. Explain the need to perform research on the topic you propose, related to to current national and international development debates and policies. Describe also briefly your work in the research field or in related fields.
3. Methodology	- Methods by which the research goals are to be reached - Data situation / collection of data - Which methods need to be developed and why?
4. Organisation of research groups	Describe the management scheme for the project and point out the collaboration between the research teams and the different disciplines, as well as their contribution to the project. Please justify the participation of countries of group 2 with regard to your research objectives.
5. Pathways to impact	Explain how results could be implemented into policy or practice by describing: a) the expected change scenarios b) the key stakeholders c) winners and looser. (see Annexe 2 of the Call document "Pathways to impact")
6. Strategy for Communication and Application	Describe the overall communication strategy of the project, how research results will be communicated to and exchanged with different potential users / stakeholders and how they will be translated into policy and practice. (see Annexe 3 "Application and Communication strategy")
7. KFPE principles	Describe briefly which of the 11 principles in the "Guidelines for Transboudnary Research Partnerships" and how they are taken into account during the elaboration of the present proposal, and how they will flow into the project implementation. (http://www.kfpe.ch/download/KFPEGuide_11P7Q_E.pdf)
8. Results Framework	Please include a **short version** of the results framework into the 8 pages of your project description (see Annexe 5 "Short version of a results framework")
9. Bibliography	The bibliography must be part of the document, nevertheless, must not be enclosed in the 8 page restriction.

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Annexe 2: Guidelines for Pathways to Impact[1]

What is 'pathways to impact' about?

Development impact is measured in real changes of people's knowledge, behaviours, and decisions, livelihoods and institutions. The pathway to impact describes how the research will/seeks to contribute to a process that supports solving development relevant global problems and improving the lives of the poor through global sustainable (social, economic, *and* environmental) development. It should detail the activities which will help develop potential economic, societal, and environmental impacts.

Pathways to impact are not expected to predict impact. The purpose is to develop a theory of change which is grounded in a sound logic model thus, encouraging researchers to explore the potential contribution that their research can make to society by increasing the effectiveness of institutions, services, policy making and practice at the national, regional and global level, and the resources required to carry out appropriate and project specific activities.

Conceptualizing impact

A project's *pathways to impact* needs to be explicit in describing the logic model on how the impact might be achieved to build long-term sustainable benfits for the poor in the context of sustainable development. The design of the *pathways to Impact* should address three inter-linked components:

- *Scenarios of change:*
  State in simple terms what changes the research seeks to capture, explore and explain, and then hypothesize what those changes might mean for the issue at stake and for poverty alleviation.
  - ⇒ What is the underlying model for understanding changes within and between different components of human and natural systems?
  - ⇒ What changes does research seek to capture, explore and explain?
  - ⇒ What might these changes mean for the issue at stake and for the reduction of poverty and global risks in developing countries in the context of sustainable development?
  - ⇒ In what assumptions is the theory of change grounded?

- *Stakeholders in those change scenarios:*
  In any complex system and in society there will be winners and losers as a result of changes, either as a direct or indirect result of human interventions or as a result of natural changes.
  - ⇒ Who are the different stakeholders that may benefit or lose within these established change scenarios?
  - ⇒ Who is directly or indirectly affected; or even potentially unintended affected, and how?
  - ⇒ What will be done to ensure that potential beneficiaries have the opportunity to engage with this research?

- *Enablers, or spoilers, of change:*
  - ⇒ Which are potential enablers/drivers or 'spoilers' of change which cause, facilitate or prevent change? (e.g. policies, practices, technologies, cultural norms etc.)

[1] NOTE: What follows builds heavily on the work of the UK Research Council (Source: http://www.rcuk.ac.uk/kei/Pages/home.aspx) and the Ecosystem Services for poverty alleviation ESPA program (http://www.esi.ac.uk/espa/files/espa/ESPA_Impact_Framework.pdf) yet adapted to the specificities of the r4d.ch Program

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Annexe 3: Guidelines for the Application and Communication Strategy

The *application of the research* results into policy and practice and the *communication to stakeholders* are considered as an integral part of the research activities. Therefore, the research proposal must include a strategy for application and communication to stakeholders which is linked to the project's pathways to impact.

Application can be different in nature. Application can, for instance, imply optimizing interventions at the systems level; policy change or priorization; translating evidence into effective policies; or translating policy into effective practice.

Application or getting research into practice and policy is a difficult endeavor. It takes place in a complex system of interactions between researchers and potential users. It is an iterative and on-going process and therefore implies a comprehensive understanding of the context in which research outcomes may be utilized, and an understanding of who will or might ultimately use the results. An *application strategy* needs to be developed explaining how the the knowledge exchange with the relevant stakeholders at relevant level is to take place throughout the project cycle and ultimately how this knowledge is translated into policy and practice. Although not all research can or will be immediately applied, the strategy should describe in detail specific activties, research outputs, products, or potential deliverables that have great potential to be relevant and useful for practice and policy. It is crucial to identify the most appropriate format for outputs and deliverabls in function of the main target groups.

Researchers will need to consider the scalability of their research findings. Researchers will be expected to demonstrate that their projects will have the potential to generate benefits that go beyond the scale or location at which they are operating either through extension to other locations or shifting to other scales. Thus, the focus should be on products that are generic enough to be useful /relevant (also) beyond a specific context, and have a high potential for scaling-up (at different societal levels) and replication (in different comparable contexts).

From a users' perspective promising research outputs or deliverables could take the form of policy options, technical guides, curricular modules, check lists, handbooks, tool boxes, glossaries, and the like.

A proactive *communication strategy* will be essential for all projects. Researchers should consider a range of communication channels linked to their project's pathways to impact to ensure that their research makes a significant contribution to delivery against the overarching goals. Communication activities – such as workshops, the web, policy briefs, film, podcast, think pieces, success stories, – provide tools or channels through which to influence, inform or build relationships with key stakeholders.

The following questions should be considered in your strategy for application and communication to stakeholders:

- Which are the interests and needs of different target groups?
- Which are the appropriate mechanisms and adequate activities to ensure an effective exchange and dissemination of knowledge/research results with the relevant key stakeholders?
- What will be done to ensure that potential beneficiaries have the opportunity to engage with this research?
- Which are suitable incentives for users to adopt the research results?

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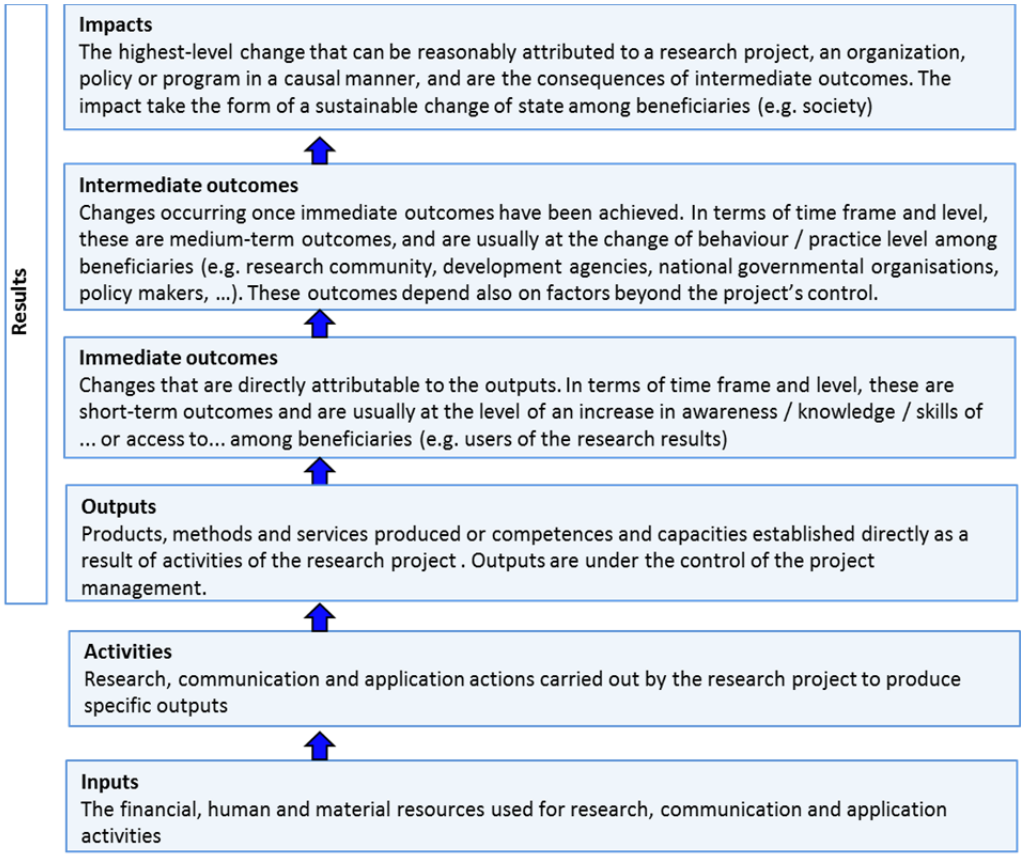
Annexe 4: Guidelines for designing a results framework

What is a results framework?

The results framework approach is a systematic approach to presenting the logic of a strategy and guiding its subsequent management, monitoring and evaluation to ensure that intended results / objectives have the greatest opportunity of being achieved.

A results framework[1] is an explicit articulation (matrix, or summary) of results / objectives expected from a particular intervention—project (e.g. research project), program, or development strategy. The results framework captures the essential elements of the logical and expected cause-effect relationships among inputs, outputs, immediate and intermediate outcomes, and impact.

Defining cause-effect linkages for an intervention (e.g. research project) lays the groundwork for a results framework. Thus, the development of a good results framework requires clarity with respect to the theory of change—the reasons why a project will lead to the outputs; why those outputs are likely to lead to the immediate or intermediate outcomes; and how those outcomes are (at least hypothetically) linked with longer-term outcomes or impact. The theory of change also requires knowing or estimating how long it will take to achieve each stage of the program and how much of the outcome is likely to be achieved. Thus, defining cause-effect linkages for an intervention lays the groundwork for a results framework.



[1] Similar term: logical framework matrix (logframe)

What is a results framework used for?

A Results Framework is both a planning and management/monitoring tool, with additional benefits in terms of communication and reporting.

Planning – using the Results Framework approach can help you identify appropriate objectives by ensuring that important questions are asked and answered at an early stage (e.g. "can objectives be measured? If not, are they appropriate? What will be sufficient to achieve the goal/objectives? What assumptions is the strategy relying on?"). It also provides a framework within which to work collaboratively with development partners in building shared ownership of objectives and approaches.

Management/Monitoring/Review – a Results Framework can fill the role of a performance framework for a project strategy. It provides a project-level framework to monitor progress towards the achievement of results and, if necessary, to adjust programs accordingly. Reviews and other more comprehensive project-level assessments should be more straightforward and effective as the Results Framework provides a rigorous structure through which a strategy's performance can be tested.

Communication and reporting. In defining a program's causal relationships, a results framework acts as a vehicle for communicating about the resources, activities, and outcomes to project staff (e.g. research team) and other stakeholders. These frameworks can be an important tool in illustrating to the beneficiaries or community what a project is meant to achieve.

Learning from experience. Over time, the systematic use of results frameworks allows practitioners to assess what approaches or interventions contribute most effectively to achieving specific development objectives, a process that helps identify good practices for replication. A body of knowledge also forms regarding which indicators, measures, and data sources are best suited to monitoring progress in similar contexts.

References:

- World Bank. Independent Evaluation Group 2012. Designing a results framework for achieving results: a how-to guide.
- OECD DAC Definitions; United Nations Development Programme, Handbook on Planning, Monitoring and Evaluating for Development Results (http://web.undp.org/evaluation/handbook/ch2-4.html).
- SDC logframe structure
- AusGuidelines: Using the Results Framework approach (http://www.ausaid.gov.au/ausguide/Documents/ausguideline2.2.pdf)

The Results Framework in a Nutshell

Hierarchy of objectives Strategy of Intervention:	Key Indicators (incl. target values and baseline)	Sources & Means of Verification	Assumptions & Risks (External Factors)
Definition: **The strategy of intervention defines the hierarchy of objectives and follows the logic of the results chain.**	Definition: **Features which can be measured or at least described precisely in terms of quantity and quality respectively and which show a change in situation.** *Hints:* ➢ Indicators measure whether the results on each level (impact, outcome, output) are achieved. ➢ Indicators include **targets** and require **baselines** to assess progress. ➢ Indicators are time-bound ➢ The need to disaggregate indicators and baselines by other criteria (such as age, social and economic status etc.) depends on objectives and targeting. *Good indicators are:* • **Relevant:** The indicator covers a relevant aspect of the outcome. There is a plausible and valid link between the indicator and the objective. • **Reliable:** The indicator is precise and can be measured with minimal bias. If two persons use the same indicator independently from each other they will get the same results. • **Realistic:** The target values of the indicator are achievable in the defined time frame.	Definition: **Sources refer to relevant data/ information on results and to the documents where this information is to be found.** **Means of verification refer to methods to collect these data/information.** *Hints:* The timely availability and quality of information on the achievement of results are important criteria when defining indicators. When having several indicators for the same result level, sources and means of verification should be clearly attributed to the specific indicators.	Definition: **Assumptions and risks are conditions which could affect the progress of the project, but which are not under direct control of project management.** An *assumption* is a ***positive*** statement of a condition that must be met for the project's objectives to be achieved. A *risk* is a ***negative*** statement of a condition that might prevent the project's objectives from being achieved. *Hints:* *Information on risks as well as their management are part of the project document.*

Impact (goal)	Impact Indicators	Sources and Means of Verification	
Definition: **The highest-level change that can be reasonably attributed to a research project, an organization, policy or program in a causal manner, and are the consequences of intermediate outcomes. The ultimate outcomes take the form of a sustainable change of state among beneficiaries.** Scope of project management: The achievement of the development objective lies outside the direct reach of the project and depends on the assumptions formulated at outcome level. However, outcomes of the project/program should represent a relevant contribution to it.	*Hint:* *Impact indicators are essentially used during evaluations and for project monitoring.*	*Hints:* *On impact level, sources and means of verification are usually beyond the scope of project management. Information depends on documents of others, are based on national or international data bases or may result from joint evaluations.*	No assumptions and risks are defined at this level

Outcomes (Project objectives)	**Outcome Indicators**	**Outcome** **Means of Verification**	**Outcome** **Assumptions & Risks**
Definition: **The short or medium term effects (=changes in quality and quantity) expected from the outputs of the project** Scope of project management: The attainment of outcomes is primarily dependent on the project outputs, but depends also on factors beyond the project's control. Monitoring of outcomes is part of project management. Hints: It is useful to distinguish between immediate and intermediate outcomes. The number of outcomes has to be limited to **2-3 outcomes**, (in exceptional cases max. 5)	Definition: **Variable that allows the verification of changes at the outcome level or shows results relative to what was planned.** *Hints:* *Keep the number of outcome indicators limited: as few as possible, as many as necessary to assess intended changes.* *Outcome indicators are used for monitoring and evaluations.*		*Hints:* *To ensure a proper vertical logic, it is essential to attribute assumptions to the corresponding level of intervention. In this box the assumptions at outcome level which are relevant for achieving the intended impact need to be stated.*

Outputs: project deliveries per outcome and costs	**Output** **Indicators**	**Output** **Means of Verification**	**Output** **Assumptions & Risks**
Definition: **Products, methods and services produced or competences and capacities established directly as a result of activities of the research project.** Scope of project management: Outputs are under the control / responsibility of project management.	Definition: **Quantitative or qualitative variable that allows the verification of changes at the output level or shows results relative to what was planned.** *Hint:* *Output indicators are used during monitoring and evaluation.*		*Hint:* *Formulate assumptions at output level which are relevant for achieving the project's objective(s).*

Annexe 5: Short version of the Results framework

Hierarchy of objectives Strategy of Intervention		Key Indicators
Impact (Overarching Goal)		**Impact Indicators**
Outcomes		**Outcome Indicators**
Strategic Objectives		
Outputs (per outcome)		**Output Indicators**
For outcome 1:		
Output 1		
Output 2		
For outcome 2:		
Output 1		
Output 2		
For outcome 3:		
Output 1		
Output 2		

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Annexe 6: Result framework of the r4d.ch programme

Hierarchy of objectives Strategy of Intervention		Key Indicators	Data Sources Means of Verification	
Impact (Overarching Goal)		**Impact Indicators**		*Assumptions:* Research and innovation are critical factors for reducing poverty and global risks through global sustainable development. A common SDC-SNSF long term and focused research program yields to better results in terms of scientific quality *and* development relevance and avoids duplication of research and dissipation of resources.
Research results of the five thematic programs and of the 'thematically open call' contribute to solving urgent global problems and securing global public goods in poor countries within the normative and conceptual framework of global sustainable development[1].		Newly identified and verified solution pathways (framework conditions, scientific evidences) to address urgent global problems and secure global public goods in poor countries	Evaluation International Advisory Board	
Outcomes		**Outcome Indicators**		**External Factors (Assumptions & Risks[i])**
Strategic Objectives	**Outcome 1:** **Scientific evidence and research based solutions for reducing poverty and global risks are available.**	Diversity and feasibility (applicability) of the proposed scientific based solution pathways in relation with poverty and global risks reduction	Progress reports from the projects and synthetic reports from thematic programs Result frameworks Global synthesis of the Fund International Advisory Board	*Assumptions:* Call does receive high interest in the research community through massive dissemination. Effective project consortia are established. *Risks:* The quality of research proposals is low. The number of submitted proposals is low
	Outcome 2: **National and international stakeholders are informed on the nature of the problems, trade-offs,**	Number of publications and conferences addressed to national and international stakeholders	Progress reports from the projects and synthetic reports from thematic programs Input from national and	*Assumptions:* Research results are relevant and timely available. *Risks*:

[1] United Nations Conference on Environment and Development (UNCED). (1992). The Rio Declaration on Environment and Development. New York: United Nations.
Report of the World Commission on Environment and Development (Brundtland report, http://www.un-documents.net/wced-ocf.htm)
For other key documents: http://www.un.org/esa/dsd/dsd/dsd_milestones.shtml

	and options for tackling and solving problems in a more systemic and holistic manner, and make use of the provided evidence and tools.	Number and diversity of results and experiences out of the application and communication activities	international stakeholders (eg interviews) Global synthesis of the Fund International Advisory Board	Dissemination does not reach target groups. Relevant results are not applied in practice and policy due to other priorities, funding constraints, and other factors beyond the sphere of influence of researchers.
	Outcome 3: **Scientific competencies and expertise in dealing with the complexity of global issues for the benefit of societies in poor countries are increased.**	Number of scientific publications involving authors from international consortia including groups from developing countries Number of co-authored articles in peer reviewed journals including researchers from developing countries Active network of researchers	Output data from projects, including list of scientific publications announced in the financed projects Global synthesis of the Fund International Advisory Board	*Assumption:* Willingness to tackle global issues in an integrative, holistic, interdisciplinary manner. *Risks*: Research is carried out in isolation. Lack of social and intercultural competencies.
Outputs (per outcome)		**Output Indicators**		
For outcome 1: Scientific evidence and research based solutions for reducing poverty and global risks are available.				
Output 1	New, innovative concepts, methods, methodologies, techniques, technologies, products, tools, or approaches are identified, developed, validated, and applied.	Research results Solutions pathways Number of products for scaling-up and/or replication Scientific evidences	Reports from the projects and synthetic reports from thematic programs Direct products and publications out of the projects	*Assumption*: Research results are innovative and tangible for stakeholders Willingness to transnational scientific collaboration and interaction with stakeholders Efficient and effective coordination within the project consortia *Risks*: Not all research can or will be (immediately) applied. Lack of integrative collaboration within a project consortium
Output 2	An active scientific network on global issues for development exists.	Number of researchers and research groups International distribution of the groups Number of triangular North-South-South collaborations	SNSF project database	
For outcome 2: National and international stakeholders are informed on the nature of the problems, trade-offs, and options for tackling and solving problems in a more systemic and holistic manner, and make use of the provided evidence and tools.				
Output 1	Research results are effectively exchanged with enablers, or drivers, of change, and applied.	Number of concrete application examples out of the projects Number of presentations from	Scientific publications Project specific communication	*Assumption*: Tools to support tackling and solving problems are

Output 2	Results of research are brought into relevant channels of international debate and regional and international policy dialogue.	projects partners where the research results are discussed Number of dissemination of research results in policy briefs and policy fora. Reference to relevant international debate	and implementation strategy Reports from the projects and synthetic reports from thematic programs Communication online (fund website) Direct products and publications out of the projects Monitoring of regional and international policy dialogue	available. Willingness of stakeholders to take into account scientific evidence and act and decide based on evidence. The communication and dissemination strategy is appropriate and realistic. Research projects ' include pathways to impact (scenarios of change, stakeholder in those change scenarios, enablers, or drivers, of change) *Risks*: Results are not tangible enough for policy makers and stakeholders Lack of interaction between research, policy and practice. The quality and adequacy of the communication and implementation strategy is low.
Output 3	Awareness on tackling global issues through systemic and interdisciplinary approaches has been raised			
For outcome 3: Scientific competencies and expertise in dealing with the complexity of global issues for the benefit of societies in poor countries are increased.				
Output 1	Transnational ('North-South' / 'North-South-South') research partnerships are effective.	Number of co-authored scientific publications Number of promoted researchers Number of research groups from developing countries participating in a consortium	Composition of the project consortia Reports from the projects and synthetic reports from thematic programs	*Assumption*: Researchers and research consortia comply with the KFPE principles The value added of interdisciplinary collaboration is recognized by researchers *Risks*: The division of work and the benefit sharing favors Swiss research community Lack of incentives Researchers have no or little interest in interdisciplinary collaboration due to lack of incentives
Output 2	Interdisciplinary collaboration between social, natural, and engineering sciences is strengthened.			
Output 3	The capacities to identify and tackle new issues with a potential global impact for developing countries have been strengthened.			

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Annexe 7: Country list[1]

Country Group 1 (Mandatory)*			Country Group 2 (Optional)
Least developed	**Low income**	**Middle income**	**BICS and upper middle income countries**
Afghanistan	Kenya	Belize	Applicants must briefly describe the country's regional significance for the topic in the proposal.
Angola	Korea Dem. Rep	Bolivia	
Bangladesh	South Sudan	Cameroon	
Benin	Zimbabwe	Cape Verde	
Bhutan		Congo Rep.	Algeria
Burkina Faso		Côte d'Ivoire	Argentina
Burundi		Egypt	Armenia
Cambodia		El Salvador	Azerbaijan
Central African Rep		Ghana	Botswana
Chad		Guatemala	Brazil
Comoros		Guyana	Chile
Congo, Dem. Rep		Honduras	China
Djibouti		Indonesia	Colombia
Equatorial Guinea		Iraq	Costa Rica
Eritrea		Mongolia	Ecuador
Ethiopia		Morocco	Gabon
Gambia		Nicaragua	Georgia
Guinea		Nigeria	India
Guinea-Bissau		Pakistan	Iran
Haiti		Papua New Guinea	Jordan
Laos		Paraguay	Kazakhstan
Lesotho		Philippines	Kyrgyz Rep.
Liberia		Sri Lanka	Lebanon
Madagascar		Swaziland	Lybia
Malawi		Syria	Malaysia
Mali		Vietnam	Mauritius
Mauritania		West Bank and Gaza Strip	Mexico
Mozambique			Namibia
Myanmar			Panama
Nepal			Peru
Niger			Seychelles
Rwanda			South Africa
Sao Tome and Principe			St. Helena
Senegal			Suriname
Sierra Leone			Tajikistan
Somalia			Thailand
Sudan			Tunisia
Tanzania			Uruguay
Togo			Uzbekistan
Uganda			Venezuela
Yemen			
Zambia			
*Including Cuba, a priority country of SDC			

[1] The country list is based on the current OECD DAC List of ODA recipients.