Food Security and Sustainable Food Systems

Call for proposals on a research programme

<table>
<thead>
<tr>
<th>Expected programme budget</th>
<th>A total of SEK 80 million over four years.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mistra’s financial contribution</td>
<td>Up to 80% of the total programme budget, subject to a maximum of SEK 64 million.</td>
</tr>
<tr>
<td>Co-funding</td>
<td>At least 20% of the total programme budget.</td>
</tr>
<tr>
<td>Length of research proposal</td>
<td>Maximum of 40 pages + appendices (CV and certificate from programme host).</td>
</tr>
<tr>
<td>Research proposals to reach Mistra not later than</td>
<td>Monday 30 September at 4:00 pm. The application must be sent to <a href="mailto:mail@mistra.org">mail@mistra.org</a> as a single PDF file.</td>
</tr>
</tbody>
</table>
| Appendices | 1. Background paper: *Food Security and Sustainable Food Systems*
2. *Allowable costs and co-funding in Mistra projects*
3. Budget template |
| Contact person | Thomas Nilsson, phone +46-(0)70-629 8812, thomas.nilsson@mistra.org. |
Food Security and Sustainable Food Systems

Funding call for a research programme

The Swedish Foundation for Strategic Environmental Research (Mistra) invites research groups, jointly with other stakeholders in the community, to submit proposals for a new research programme. Its purpose is to find ways to resolve the question of how to develop a sustainable, competitive, profitable and innovative Swedish food system by 2030.

Background

Profound changes in food systems are necessary to achieve the United Nations’ Sustainable Development Goals (SDGs) and comply with the terms of the Paris Climate Agreement. In a Swedish context, there have been numerous studies and initiatives, with varying points of departure, analysing parts of the Swedish food system and how they can contribute to a more sustainable food system. There have also been a growing number of innovation efforts concerning parts of the food chain, aimed at making them more sustainable. Nevertheless, none of these initiatives have adopted a systemic approach to the question of how to restructure the entire Swedish food system to attain the SDGs and simultaneously boost competitiveness and profitability.

Food security may be defined in several ways. The most basic definition comprises prevention of hunger and provision of staple foods at affordable prices. The need for the food supply to withstand changes, disruptions and breakdowns of various kinds is another frequent criterion. The concept may be further broadened to include provision of nutritious, safe food that is produced sustainably and also profitably enough for operators in the food system to make the requisite investments.

The food system includes not only production of food but also, to a high degree, its consumption and consumers. It is important to include the consumers and induce them to become a driving force in the transition.

In the EU, Sweden has played a leading part in reducing the use of antibiotics and tightening animal welfare controls. There is ample scope for Sweden to assume a leading international role in terms of a sustainable, resilient food system as well. Awareness of the need for change is relatively marked in Sweden and there is a will, among many stakeholders in the food system, to help bring about change.

Expectations of achieving net zero emissions of greenhouse gases (GHGs) have been lower in the food sector than in other sectors of society. This reflects, in particular, the emissions caused by animal husbandry and dairy production, as well as by handling of manure and artificial fertilisers — emissions sometimes regarded as inevitable. A goal of net zero emissions in the farm sector would nonetheless be a key driver in Swedish society’s climate adaptation, and in promoting innovation in the food sector.

Low profitability in the Swedish agricultural sector is worrying, in light of the rise in demand for investments this country needs in order to be capable of joining in the transition, meeting new expectations and requirements, and boosting our national
capacity to deal with extreme weather situations and a changed climate. Agriculture and also aquaculture and fishing help to provide job opportunities in rural Sweden and, accordingly, preserve a living countryside. Rising profitability in the farm sector thus generates a range of positive effects in terms of socioeconomic development.

This call for proposals is based on a background paper (Appendix 1). Within the framework of this paper being compiled, a dialogue meeting was held on 7 February 2019, with selected stakeholders in the Swedish food system.

Focus

The proposed research programme must be based on the background paper and the four research areas it specifies as the starting point. These areas are outlined below.

1. **Future scenarios**
   The world is undergoing rapid change — environmental, social, technological and geopolitical. Scenario analysis is a useful tool for exploring how various future circumstances and drivers may affect the Swedish food system. Such circumstances and drivers may, for example, be connected with demographics, international trade and cooperation, changes in demand and the extent to which society and consumers provide an impetus for, and/or accept, new dietary habits.

2. **Net zero emissions of GHGs from the Swedish agricultural sector**
   Sweden has set a target of its society as a whole achieving net zero GHG emissions by 2045. The farm sector is included in this overarching objective, but to date the central government has defined no specific goal for farming. Nonetheless, one may pose the question of what agriculture with net zero emissions might involve in the various future scenarios; which goal conflicts and synergies may arise; and what the implications may be for the sector as a whole. A decrease in GHG emissions is likely to affect other environmental objectives, and also other goals in society. Moreover, its effects will probably vary from one part of Sweden to another.

3. **Indicators for measuring the food system’s target fulfilment**
   New indicators and metrics are needed both to monitor progress and to incentivise measures to drive the transition from the current food system to its new, more sustainable successor. How can these indicators and metrics be configured to stimulate initiatives and influence decision-makers in politics, business and civil society in a broad sense, including consumers? Many of the indicators used today do not measure the right parameters and, accordingly, fail to provide the right incentives.
4. **Strategies, measures and incentives to drive development towards a sustainable, resilient Swedish food system**

How can we surmount various types of obstacle, and create incentives and favourable conditions that are conducive to change? What measures are needed, and how can they be tested and scaled up? They may be, first, technical and other kinds of remedy in the business sector. Second, they may consist in legislation and other policy instruments at government level. What are the implications for different groups, and how may this change influence Sweden’s international competitiveness, and Sweden’s standing in the world in a broad sense?

All the above research areas must be addressed in the programme.

The objective of the research programme is to contribute solutions concerning possible means of developing a sustainable, competitive, profitable and innovative Swedish food system by 2030. The programme is thereby connected with Agenda 2030 and Sweden’s contribution to the global SDGs, and with our ambition to fulfil the Paris Agreement. Relevance and anticipated impact with respect to these aims must be dealt with in the programme proposal.

The emphasis of the programme must be on the Swedish food system and Swedish food security, but the fact that much food-related legislative work takes place at EU level must be considered. The programme must also have a global outlook.

Alternative uses of farmland or water areas for purposes other than food production lie beyond the scope of this call.

Programme planning must cover four years, but in an eight-year perspective. It is vitally important to involve partners right from the planning stage and further on, throughout the research process. Interdisciplinary collaboration is expected in the programme, as is collaboration with the business and public sectors and civil society. Cooperation between academia and industry is expected to be well developed, so that it brings about concrete outcomes.

Expected features of the programme during its implementation include sharing of experience and, where relevant, collaboration with other Mistra programmes.

**Who can apply?**

The call addresses research groups in all academic disciplines working at Swedish higher education institutions, research institutes and companies, and also purchasers in the business and public sectors and civil society. Researchers and organisations active outside Sweden may participate, but the principal applicant and planned programme host must be a Swedish institution.

The host institution and other organisations taking part are expected to be coordinated in a consortium and to submit a joint proposal.
Special conditions

1. Co-funding at 20% of the total programme budget from, for example, companies, organisations and government agencies is required. A co-funder’s contribution may be partly in kind, such as staff to assist in the programme. The co-funding requirement is based on experience showing that commitment and integration in the programme are enhanced when two or more organisations contribute resources. The co-funding expected must be reported in the proposal and attested with a certificate from the planned programme host.

2. Current rules concerning indirect costs: see Appendix 2.

Application process and review

The application must be written in English, except for a summary in Swedish. It must consist of the following parts and appendices, and comply with page limits specified. If the proposal exceeds any of the page limits it will not be processed. No appendices other than those listed below may be attached.

The main part of the proposal (a maximum of 40 pages) must include the following parts:

Summary in English and Swedish
1. Vision, aims and expected impact
2. Scientific, including state-of-the-art, value of the programme
3. Benefits of the programme to society
4. Organisation of the programme
5. Skills and networks
6. Description of component projects
7. Deliverables
8. Communication
9. Budget (use the budget template, Appendix 3).

The following appendices must be attached:
I. CVs for up to 10 key people (maximum of one page per person)
II. Certificate from planned programme host.

Note that the following must be clearly specified on the front cover of the programme proposal: (a) preliminary programme title, (b) planned programme host, (c) planned programme director and (d) contact person for the proposal, with full contact details. Although 40 is the maximum number of pages for the main part of the proposal, reaching this number is not a target as such. Writing concisely and readably is in every applicant’s interest. If approved, the proposal will serve as the basis of the plan that steers the programme.

Attached to the proposal must be a certificate confirming that the planned programme host (and also the main applicant) is prepared to assume the role of hosting the programme and to make the requisite resources available, and also accepts Mistra’s
rules regarding indirect costs. The planned programme host must also certify that pledges on co-funding have been obtained and match the revenue budget reported. This certificate must be signed by the Vice-Chancellor, Chief Executive or equivalent.

Note that heading a Mistra programme is normally a full-time commitment and that every programme is expected to have a communicator, and a well-considered and clearly defined budget for communication and implementation. It is advisable to read the section on ‘Managing Mistra programmes’ (under ‘Research’), at www.mistra.org.

Mistra intends to award research funding for one (1) of the programme proposals submitted. It is not possible to apply for funding for individual projects within the scope of this call.
Note that Mistra is subject to the principle of public access to official records. This means that all documents received by Mistra, including proposals and applications, are public. On certain conditions, information may be treated as confidential.

Personal particulars received are managed in accordance with current legislation on data protection. For more information, see Mistra’s data privacy policy (https://www.mistra.org/en/data-privacy-policy).

The proposal should be sent as a single PDF file (including appendices) by email to mail@mistra.org, to reach Mistra not later than 30 September 2019.

**Evaluation criteria**

Every proposal will be evaluated against the criteria below, in which potential for environmental problem-solving and contribution to sustainable development are crucial.

1. **Approach**, i.e. how far the programme has a central, coherent idea and an innovative direction, how well the aims are formulated and how well the anticipated effects are reported (including indicators).

2. **Scientific quality**, i.e. how well the programme meets the requirements of advanced research expertise, theoretical proficiency and methodological quality.

3. **Benefits**, i.e. how highly developed the collaboration with users of the research results is (and is expected to be), and which supportive communication processes and methods will be used to attain effective implementation.

4. **Management and organisation**, i.e. the manner in which the programme will be integrated in the host organisation, how it will be governed and structured, and to what degree it will make efficient use of resources.

5. **Competitiveness**, i.e. the ways in which the programme has the potential to help promote Sweden’s competitiveness and prosperity in a broad sense.

Evaluation is carried out by external experts. Oral questioning is part of the process.
Time schedule

**2019**
- 3 April: Call opens
- 30 September: Call closes
- September–November: Proposals are evaluated
- December: Award decision is taken by Mistra’s Board

**2020**
- January: Programme start (preliminary)

**Contact**
Thomas Nilsson, +46-(0)70-629 8812, thomas.nilsson@mistra.org.