



Project report

SIANI Expert Group “Agriculture at a crossroads – agriculture transformation in low income countries under the challenges of global environmental change” – 140531-150831

➤ **Goal and key worlds for the project**

The goal of the work was a deepened knowledge among different stakeholders in Sweden and globally about the need for a transition of the agriculture sector to an approach based on ecosystem services, biodiversity, nutrient circulation, local knowledge and cross-learning. The goal was also a deepened policy dialogue in the Swedish context that could also have implications on the global level.

Key words for the project were agro-ecology, food security, small-scale farmers, planetary boundaries, sustainable development, pro-poor rural development, cross learning and agricultural transformation.

➤ **Initial group member list**

- **Karin Höök**, Senior Expert, Global Agriculture and Food Security, **Swedish Society for Nature Conservation** (coordinator)
- **Johanna Björklund**, Associate Professor, School of Science and Technology, **Örebro University**
- **Louise Karlberg**, Head of Bioresources Unit, **Stockholm Environment Institute (SEI)**
- **Jakob Lundberg**, Head of Development and Policy, **We Effect** and **Vi Agroforestry**
- **Kristina Mastroianni**, Project Director, **NIRAS International Consulting**
- **Fredrik Moberg**, Director, **Albaeco** and Communication Advisor, **Stockholm Resilience Centre**
- **Gunnar Rundgren**, CEO, **Grolink Consultancy AB**
- **Lennart Salomonsson**, Professor, Department for Urban and Rural Development and Theme Leader SLU Global, **Swedish University of Agricultural Sciences**

Louise Karlberg participated during the planning phase. Johanna Björklund did not participate in the project due to heavy work load and lack of time.

In the project application the group compiled a list over relevant persons that could act as a “resource bank” for the project and also a list over the policy network of the group. The lists made it possible with a quick start of the project. Several of the mentioned organizations/institutions/persons participated in the projects activities in different ways and also other people.



Universities/research institutes

- **SEI (Stockholm Environment Institute):** Madeleine Fogde, Manager SIANI, Matthew Fielding, Communications Officer SIANI and Ekaterina Bessonova, Communications Assistant SIANI
- **Stockholm University, Stockholm Resilience Centre:** Cibel Queiroz, Post-doc researcher and Sara Elfstrand, Programme Officer at the Resilience and Development Programme SwedBio
- **The Swedish University of Agriculture Sciences, Department of Urban and Rural Development:** Nadarajah Sriskandarajah, Professor, Nicia Givá, PhD student and Margarita Cuadra, Researcher
- **Nebraska University, USA:** Charles Frances, Professor
- **Albaeco:** Marika Haeggman, Communications Officer and Louise Hård af Segerstad, Co-director

Civil society

- **APRODEV (Association of World Council of Churches related Development Organisations in Europe), Brussels:** Karin Ullmer, Senior Policy Officer (Church of Sweden partner)
- **Biovision Africa Trust Kenya:** David Amudavi, Director (SSNC partner)
- **Centro Ecologico, Brazil:** André Goncalves, Expert (SSNC partner)
- **Church of Sweden:** Anders Ölund, Senior Policy Officer
- **ISD (Institute for sustainable Development), Ethiopia:** Sue Edwards, Director (SSNC partner)
- **PELUM Kenya:** Humphrey Mwamboo, Program Officer, PELUM Kenya (SSNC partner)
- **TOAM, Tanzania:** Mwatima Juma, President
- **We Effect:** Richardo Quiros, Coordinator, Regional Office, Latin America, Guatemala

UN

FAO: Barbara Herren, Programme Specialist Sustainable Agriculture

UNCTAD: Ulrich Hoffmann, former Head of Trade and Environment Branch

➤ **Implemented activities and timeline for the project (140515-150831)**

The release of funds was late as was the start of the project. The group started the project with a first planning meeting April 7th 2014. In total the group have had seven meetings (140407, 140513, 141010, 141111, 141211, 150212, 150518, 150819). There are protocols for the four planning meetings 140407, 140513, 141010 and 141211, see appendix 1, 2, 3 and 4. The rest of the meetings had the character of working meetings (mainly with the policy briefs) and are mainly documented through drafts of the policy briefs.

The budget through SIANI was limited to a maximum of 250 000 SEK. The project group managed to pool different resources for a stronger and more powerful work and planned for



a budget of 605 000 SEK. In total the project ended up with a budget of 750 000 SEK, see appendix 5, plus working time for project group members.

In the proposal it was planned for one workshop, one seminar, one policy brief, one report and an application. All planned activities included in the proposal were implemented. In addition one policy brief was developed and also a short info folder summarising the two policy briefs.

The group applied for and got ok for an extension of disposition of the resources until 150831, as all expenses had not charged to the project account in the contract period. The project report was sent to SIANI August 31.

Workshop “Scaling up strategies – from technology transfer to empowerment with focus on sustainable agriculture production and food security” (August 28-29th 2014):

During the workshop discussions on issues about scaling-up agricultural projects was held, using concrete cases from Africa and Asia. “Lessons learned” and important settings and components on successful scaling-up projects was formulated. The work was done in collaboration with SLU Global and the scientific theme “Scale issues in relation to food security and poverty alleviation” and is also reported through SLU Global. In total about 30 persons participated in the workshop at SLU in Uppsala. (Responsible: Lennart Salomonsson)

Documentation:

- Invitation to “Scaling-up strategies – from technology transfer to empowerment with focus on sustainable agriculture production and food security, August 28-29th 2014, Uppsala” www.siani.se/sv/node/12764
- Final report from the workshop “Scaling-up strategies – from technology transfer to empowerment with focus on sustainable agriculture production and food security, August 28-29th 2014, Uppsala”, 7p. (Text: Nadarajah Sriskandarajah, Nicia Givá and Margarita Cuadra, SLU) www.slu.se/PageFiles/242932/Scaling_up_report.pdf
- Policy brief “Scaling-up of sustainable agricultural production: From linear approach and technology transfer to agro-ecology, empowerment and systems thinking”. The policy brief will be published at the SIANI webpage as soon as the layout is ready.

Policy brief “Scaling up” (August 2015):

A policy brief with the title “Scaling-up of sustainable agricultural production: From linear approach and technology transfer to agro-ecology, empowerment and systems thinking” was developed as a result of the workshop in August 2014. (Responsible: Karin Höök, Fredrik Moberg and Lennart Salomonsson)

Documentation:

- Policy brief “Scaling-up of sustainable agricultural production: From linear approach and technology transfer to agro-ecology, empowerment and systems thinking”, August 2015. The policy brief will be published at the SIANI webpage as soon as the layout is ready.

**Seminar “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach” (March 10th 2015):**

During the seminar the following question was asked and discussed: “Can agro-ecology provide a triple-win strategy for meeting the pressing challenges of food security, environmental degradation and climate change?”. The seminar brought together development actors from the Swedish government, multilateral organizations, civil society and scientific community and in total the seminar had 85 participants from different stakeholders in the Swedish agricultural sector. A policy brief “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach” was presented during the seminar. (Responsible: Karin Höök)

Documentation:

- Invitation flyer. www.siani.se/event/agroecology
- Ulrich Hoffman, UNCTAD. Wake up before it’s too late! Agriculture at a crossroads: Assuring food security in development countries under challenge of global environmental change. Ppt. www.siani.se/event/agroecology
- Barbara Gemmill-Herren, FAO. Agro-ecology for food security and nutrition. ppt
- Pablo Tittonell, Wageningen University. Agro-ecology – the need for stakeholder collaboration. Ppt. www.siani.se/event/agroecology
- Richardo Quiros, WeEffect regional office Latinamerica. Scaling up strategies – from technology transfer to empowerment with focus on agro-ecology. Ppt. www.siani.se/event/agroecology
- Cibiel Queiroz, Stockholm University. Managing agricultural landscapes for ecosystem services, resilience and human well-being. Ppt. www.siani.se/event/agroecology
- Policy brief “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach”. <http://www.siani.se/resources/report/how-feed-nine-billion-within-planets-boundaries-need-agroecological-approach>
- See also under Media, webpage and social media, page 7.

Participants list see appendix 6.

Policy brief “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach” (March 2015)

A policy brief with the title “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach” was developed. (Responsible: Karin Höök and Fredrik Moberg)

Documentation:

- Policy brief “How to feed nine billion within the planet’s boundaries. The need for an agro-ecological approach”. www.siani.se/resources/report/how-feed-nine-billion-within-planets-boundaries-need-agroecological-approach



Report “Ecosystem services, agro-ecology and resilience” (September 2015)

A study and report about how to deepen the knowledge about ecosystem services, agro-ecology and resilience among NOGs on a global level was discussed with the SSNC partner Centro Ecologico/André Goncalves during one of the planning meetings and an outline for a study and report was set. André Goncalves participated in the resilience conference in Montpellier May 2014 where the study and report outline was discussed with relevant stakeholders. The objective of the study was to evaluate the feasibility of agroforestry systems implemented by smallholders in producing ecosystem services and combating desertification and also to develop and test a participatory methodology to assess the resilience of agricultural systems. The pilot project has led to a broader study during 2015 in collaboration with NGOs in East Africa financed by SSNC/Sida Civsam. (Responsible: Karin Höök and Fredrik Moberg)

Documentation:

- Resilience and agricultural systems in Brazil – A pilot project. Power Point presentation at lunch seminar and meeting at SRC May 27th 2015. Appendix 7.
- **AGROFORESTRY SYSTEMS IN PERNAMBUCO STATE, SEMIARID OF BRAZIL: CLIMATE CHANGE ADAPTATION AND FIGHT AGAINST DESERTIFICATION.** Dr. **A. L. Gonçalves**, Instituto Federal Catarinense – IFC; Dr. **L. P. Amaral**, Universidade Federal de Santa Maria – UFSM; Dr. **S. C. Bauch**, Interamerican Development Bank – IADB; Dr. **I. Siddique**, Universidade Federal de Santa Catarina – UFSC. Abstract to be presented at PECS conference in South Africa November 2015 (June 2015). Appendix 8.
- Pilot project report “Agroforestry systems in Pernambuco state, semiarid of Brazil climate change adaptation and fight against desertification” (September 2015). Appendix 9.

Project application

Several initiatives have been taken to get resources for a continuation of the work of the expert group.

- A draft application for a Sida financed ITP (International Training Program) within the project area has been written and a meeting with Sida is planned autumn 2015. The aim of ITPs is to support and strengthen the participants own plans for change on organizational and sectorial levels and should not be regarded as individual competence training. (Responsible: Karin Höök and Kristina Mastroianni).
- A project within the area “Resilience – an assessment of NGO work in East Africa” has been formulated as a result of the work with the report “Agroforestry systems in Pernambuco state, semiarid of Brazil climate change adaptation and fight against desertification” and is financed by SSNC/Sida Civsam during 2015. The project is implemented in collaboration with Albaeco/SRC, Centro Ecologico and other NGOs in Brazil, NGOs in Africa, Instituto Federal Catarinense (IFC) in Brazil, the Interamerican Development Bank (IADB) and Universidade Federal de Santa Catarina (UFSC) in Brazil. (Responsible: Karin Höök and Fredrik Moberg)
- How to expand the work within the area in different ways was discussed during the final meeting August 19 and the group came up with a list of ideas, see page 9.



Short info folder summarizing the two policy briefs

A mini-folder has been developed to briefly present the main conclusions from the two policy-briefs. It features the two infographics from the policy-brief and includes QR codes that can easily be scanned by smartphone, directly linking to the pdf:s of the two policy briefs. (Responsible: Fredrik Moberg)

Documentation:

The mini-folder is under layout and will be published on the SIANI webpage as soon as possible.

➤ **Output, outcome and policy impact**

One aim of the project was to, through cross learning and cross stakeholder knowledge exchange in different ways, develop and intensify the work in the area and to connect farming, education at different levels, advisory service, research, private sector activities and policy work for a more rapid and efficient work to make the transition to a truly sustainable agriculture possible.

The project was only for one year and some of the deliverables will not ready until September 2015. Of course more work is needed to spread information, continue the discussion and to build and strengthen platforms between different stakeholders. Despite the short time of the project it's already possible to see results.

Output:

The planned output were one policy brief, one seminar, one workshop, a project application and a report, all implemented and reported. In addition one policy brief and a short info folder were developed.

Outcome and policy impact:

The project just ended and it will of course take some time to see policy impact even if there already are some interesting examples. Examples of outcome and policy impact are reported together below.

- The group identified 'cross learning' during their jointly planned workshops and seminars, and when they jointly produced content dense text in two policy briefs. When jointly producing concrete workshops planning and policy brief texts, the different knowledge and experiences from the group members, coming from different organizations (with different focus, knowledge and experiences) the group members could see cross learning took place, learnings that each of them could take home and use in their different home organization.



- The interest among NGOs to conduct action research is big, the private sector has an interest to develop “sustainable markets” and policymakers need well developed and anchored recommendations. To connect to the global consumers’ movement is also important for processes of change. Stakeholder dialogues, cross learning and knowledge sharing are important to speed up the needed agriculture transformation.
- The group has created a base for future work in the area and for intensified dialogues both in Sweden and on the global arena.
- An increased interest at universities in Sweden (both students and researchers) for agro-ecology, interdisciplinary understanding of agriculture, and for action research as a way to collaborate between NGOs and universities.
- The focus on agriculture and agro-ecology in the political development discussion in Sweden and globally is increasing. In Sweden the seminar and policy brief has helped to introduce agro-ecology to different stakeholders in the Swedish agricultural sector.
- On the global level the dialogue has started between the Swedish actors and FAO, NGOs in Latin America and Africa about how to “join forces” to speed up the work with agro-ecology and the agriculture transformation that is needed.
- Sida has shown interest to move on with a Sida Development Talks in the area and also internal seminars.
- The policy dialogue between different stakeholders in Sweden and also globally has been intensified, between for example NGOs, universities and UN agencies.
- Interest from top policy level in Sweden about what is agro-ecology.
- The way forward, priorities and needs have been identified and summarised mainly in the policy briefs.
- The concept of resilience has been introduced to several NGOs both in Sweden and in Africa and Latin America. The understanding of the concept has deepened.
- The agro-ecology seminar and policy brief has contributed to an increased discussion about the need for an agriculture transformation in low income countries under the challenges of global environmental change.
- The coordination within Sweden and among Sweden’s “global actors” in the area has increased.
- Policy briefs have been communicated in NIRAS internal expert network.
- Invitations to workshops and seminars have been spread within the groups network.
- The concept of agro-ecology has been successfully used in tenders for implementation projects which NIRAS is now implementing (Ethiopia, GIZ).
- Regional project implementors have been informed about the SIANI Expert group concept and scaling-up issues discussed under this SIANI Expert group which has resulted in an application for a new, regionally based, SIANI Expert group.
- Practitioners from the South have had the opportunity to engage in co-learning processes with leading resilience scientists.
- In Brazil there are several governmental policies related to the concept of resilience. The assessment of resilience can help improving and scaling up these policies. Examples of policies are: Commercialization: The National School Feeding Program, in which by law 30% of the budget to buy food for schools must be utilized to buy products from family farming. The Program of Food Acquisition is another program oriented to buy products from family farmers to be distributed to people under food insecurity. In this program, the products go to several institutions such as kinder gardens, place where elderly people get shelter, etc., also a number of public



institutions – hospitals, prisons, etc. – are buying products from family farming, particularly organic products.

National Program to Combat Desertification: Specifically in the region susceptible to desertification, a number of programs under this major policy have now been implemented. One of the major initiatives is the construction of water storage facilities such as cisterns, small dams, protection of wells, etc.

Family agriculture: Family agriculture is recognized by law since 2006. There is a number of specific programs such as the National Credit Program for family farmers, where small holder can have access to loans with lower interest rates. There are several specific credit lines (investments, women, youngsters, etc.)

Agro-ecology: More recently, it was launched the National Program for Agro-ecology and Organic Production, in which specific programs have been implemented to support organic farming.

- The resilience study and report has contributed to capacity building in the area of resilience for partners in Latin America as for example within the following federal institute and universities: Instituto Federal Catarinense (IFC), Universidade Federal de Santa Catarina (UFSC) and Universidade Federal do Rio Grande do Sul (UFRGS). In addition, several NGOs and farmers organizations under the Ecovida Network are participating in a larger project to assess the resilience of agro-ecological production systems.
- The report from the resilience assessment in Brazil will be presented for the federal government in several events where Centro Ecológico (partner organization) participates.
- Dialogue with NGOs in East Africa has started. Resilience assessments can be used as a tool for development work and interest institutions on different levels in Africa, universities, AU, research institutes and others.

Media, webpages and social media

The SIANI website has been updated with information about the work of the group with help from the SIANI staff.

The workshop and seminar was announced at participating stakeholders' webpages. Documentation and results from the workshop are published at the SIANI webpage as well as at the SLU Global webpage. Policy briefs were published at participating stakeholders' webpages. For examples see below:

Albaeco:

<http://www.albaeco.se/projekt/>

Social media (Facebook, Twitter)

NIRAS:

NIRAS webpage is under reconstruction. When ready info will be published on the new webpage.

SIANI:

"New-old perspectives on the food security dilemma: Is agroecology the way to go?" Interview with Barbara Herren.

<http://www.siani.se/sv/node/15982> (23/3)

**SLU Global:**

<http://www.slu.se/en/international/slu-global/scientific-themes/scale-issues-in-relation-to-food-security-and-poverty-alleviation/recent-and-ongoing-activities-within-the-theme-scale-issues-in-relation-to-food-security-and-poverty/agroecology-for-food-security-nutrition/>
<http://www.slu.se/en/international/slu-global/scientific-themes/scale-issues-in-relation-to-food-security-and-poverty-alleviation/reports/>

Swedish Society for Nature Conservation:

"FN tar sig an agroekologi." Interview with Barbara Herren.

<http://www.naturskyddsforeningen.se/nyheter/fn-tar-sig-agroekologi> (18/3)

WeEffect:

http://www.weeffect.se/wp-content/uploads/2015/04/Effekter_2_2015_webb_uppslag.pdf
<http://www.weeffect.se/blog/hur-ska-vi-matta-nio-miljarder-inom-planetens-granser/>

Other:

Land Lantbruk: "Vi kan mycket stolt säga att människor äter bättre idag." Interview with Richardo Quiros.

<http://www.lantbruk.com/lantbruk/fattiga-bonder-far-hjalp-med-agroekologi> (27/3)

Biståndsdebatten.se: "Hur ska vi mätta 9 miljarder människor på vår planet?"

<http://www.bistandsdebatten.se/redbloggen/hur-ska-vi-matta-9-miljarder-manniskor-pa-var-planet/> (11/3)

The participating stakeholders have spread the results from the work to the "resource group" and encouraged the "resource group" to publish information at their webpages and communicate the results in different social media channels. More work is planned to be done within this field when the "Scaling-up" policy brief and "short-info folder" is published.

Economy

Except for parts of the coordination of the project (Karin Höök) and the work with the policy brief, the "application workshops" and resilience project (Fredrik Moberg) the working group members have contributed with their working time. For project budget and outcome, see appendix 5.



Ideas for phase 2

- **ITP - Proposal for a Sida International Training Programme in Scaling-up Agroecological Innovation Systems**

Rationale: New systems for food production are needed to secure sufficient nutritious food for a growing population. These systems need to produce food in a sustainable way and under increasing environmental pressures from changing weather patterns and reducing soil fertility. There are available innovative techniques, agro-ecological techniques, that can combine these requirements, but they are currently used on a limited scale and are not readily available due to lack of knowledge and/or information. Some of these innovations may have been in use for a long time, but since they are not known by the large majority they are still considered an innovation. In Sweden there has been a great increase in organic production during the past 30 years, and today the total area of agricultural land under organic certification is around 15%. In addition, a large influx of innovative agro-ecological techniques has been transferred to Swedish conventional farming systems with an environmental and food security focus. The Swedish extension system as well as the unique way the Swedish government involves stakeholders in the decision-making structures, are two examples where Sweden has been able to effectively scale-up the use of environmentally and socially sustainable systems. Swedish consumers are also in the forefront when it comes to choosing to purchase environmentally sustainable produce, even at a higher cost. The Swedish supermarkets have for a long time focused on promoting organic and other certified produce. The work that Swedish institutions, universities, NGOs and private companies are doing all over the world has also contributed to the development of innovations within agro-ecological systems that are worth promoting further. Sweden has a large community of expertise to draw from.

Based on the rationale above, we believe that Sida should invest in developing an “International Training Programme in Scaling-up of Agro-ecological Innovation Systems”. Sida’s concept for ITP is innovative in itself and aims at creating an enabling environment for sustainable development within the targeted intervention area. The ITP concept would suit the scope of this topic in particular as in order to scale up innovations, a structured approach which involves a whole range of stakeholders is needed.”

- **Sida Development Talks about agro-ecology**

There is an ongoing discussion about a Sida Development Talks about agro-ecology during early spring 2016. The SIANI secretariat has the coordinating role for the seminar.

- **Planning a MOOC (Massive Online Open Course) in agro-ecology**

The group members have identified that there is a need for more wide knowledge in societies about agro-ecology, (agro-ecology as an approach for renewable agricultural systems development). As MOOC does not generate an official diploma, guaranteed by the university who deliver the course, MOOC target people who wants to learn about the course subject, and especially people who have capacity to take such university based course, but can't effort the universities' tuition fees. MOOC also attract people who want to know more about a subject but don't need an official diploma, just the knowledge.

As agro-ecology, as an interdisciplinary and action oriented subject, at universities are mainly taught in official university masters or PhD courses, they are not open for a wider public to benefit from. By creating a MOOC, in a group of people's from different actors in the



agricultural value chain, all with knowledge and experiences in agro-ecology (theoretically or very concrete and practically), such a course could be of great interest for many peoples around the world.

The group asks for resources to organize a three days workshop on planning an appropriate structure and identify what content such MOOC in agro-ecology needs to cover. To the workshop domestic and international participants with great experiences in teaching and/or practicing agro-ecology will be invited.

- **Expanded collaboration between NGOs on a global level and SRC for resilience assessments**

Joint work to learn how the tool can be used to speed up the process of agricultural transformation.

- **A series of seminars for AU and interested countries involved in the EOA (Ecological Organic Agriculture) Initiative in Africa**