
System boundaries – feedbacks and progression for NEOH book chapter

REFERENCE: Short Term Scientific Mission, COST TD1404 NEOH

Beneficiary

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Host

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1. Purpose of the visit

The Chapter 3 in the NEOH handbook on a framework for evaluation of One Health will outline the steps throughout an evaluation of One Health Initiatives, starting with the definition of the system and leading towards the specific methods described in Chapter 4. The section I contributed to in this STSM is about **the establishment of system boundaries**.

This work is well in line with my work at the GDSI (Global Decision Support Initiative) together with the National Food Institute at DTU (Technical University of Denmark). In particular my Post Doc consists of developing decision support tools in food safety and food security area, developing quantitative approaches for the holistic assessment of the benefits and risks of food production and consumption. Life Cycle Assessment together with Risk and Benefit assessment methodologies are integrated in a framework and my aim is to overview food security and safety issue from a wider point. In the context of the NEOH handbook this technique should be combined with rapid ethnography, a process proposed by Kevin Bardosh.

To fulfill the task it was thought very useful to have presentation of my work (seminars) and discussions with researchers at Reading University (School of Agriculture, Policy and Development) in the following areas: modelling the food system, system theory, and climate change, in particular with Associate Professors Nicholas Oliver Bardsley, Professor Nikos Georgantzis and Lecturer Harley Pope. Furthermore, another visit /seminars were planned at Oxford University (Environmental Change Institute) with the senior

researcher Monica Zurek and in LCIRAH (Leverhulme Centre for Integrative Research on Agriculture and Health) .

In addition, Kevin Bardosh, who is an expert on rapid ethnography and member of NEOH, was in London during that period for a conference about social issues and One Health. So I had the opportunity to meet him and being introduced to many researchers present in that conference. This further developed my ideas and provided input for the writing process.

2. Description of the work carried out

As written above I had very inspiring meetings with the above mentioned researchers and I had the opportunity to present the work I am doing within One Health in four different places:

- Zoonotic Society, London
- Reading University
- Oxford University
- LCIRAH

After presenting I had always good discussions, feedbacks and questions related to my work.

More in details in the Zoonotic Society, London I met Kevin Bardosh who has recently published the book "Science, Politics and Zoonotic Disease in Africa", and he is leading the rapid ethnography approach to One Health case studies. Kevin has had huge experience in this field (e.g. the recent African Ebola case), and we discussed how to integrate the sociological aspect into One Health framework. Furthermore, we discussed the "boundaries" and constraints designed from governance, policies, cultural barriers, language –dialects, interaction with population.

At Reading University I had the great opportunity to meet and speak with Associate Professors Nicholas Oliver Bardsley, Professor Nikos Georgantzis and Lecturer Harley Pope. Each of them is specialized in different areas but they collaborate, in particular Nikos and Nicholas, in framing new approaches to improve the sustainability of trades off in agriculture. Harley Pope is the Innovative Food Systems Teaching& Learning (IFSTAL) educational coordinator at the University of Reading. He gives also lectures on food security and development. With him it was particularly interesting to discuss about system boundaries and interdisciplinarity. Nikos is working with experimental economy and sets up experiments to measure the behavior of people while taking decisions, this aspect nicely link together the social aspect and trade-offs. Furthermore, it can give a quantification of social impact in a system. Nikos was also very kind with me explaining how the Department is organized and let me visiting the campus in Reading. While in Reading I also presented my work for GDSI and NEOH, stressing in particular the need for each case to define the system boundaries and possible constrains (directly linked with sustainability aspects), how those elements can be combined to achieve results for better solutions, for products, new technologies, health approaches.

I had than a meeting at Oxford University with Monica Zurek, Monika is working in SUSFAN Project (Metrics, Models and Foresight for European **S**USTainable Food **A**nd **N**utrition **S**ecurity) and she is a senior researcher at the Environmental Change Institute at the University of Oxford and a member of the ECI Food Systems Group. It was more than inspiring having a meeting with her because we had an important discussion about metrics and indicators needed in respect of food chain, with focus on system boundaries coming from environmental conditions, governance and external constrains.

In LCIRAH I presented my work once more and I had very interesting feedbacks and questions.

3. Description of the main results obtained

Keeping mind the challenging job to prepare a good draft for Chapter 3 of NEOH book, and in particular the part related to system boundaries I was very happy that the short term mission allowed me to present my ideas to a large group of researcher from different fields.

Each person gave me the opportunity to refine the words written so far and in particular I was enthusiastic to exchange opinions with anthropologists and researchers with a social science background.

This was very helpful in enlarging my views and improving the paragraphs written so far and includes also other important elements in the big picture, as human relationships, cultural behaviour, languages expressions, governance organizations, constructive collaboration within interdisciplinary groups.

I have incorporated new stakeholders and their approaches not considered before as NGO working groups in the field and organizations linking different pathways of sustainability and one health. For example STEPS centre approach, that try to converge, link and integrate rapid environmental and social changes (such as climate change, population explosion, urbanisation and globalised economics) using pathways to link environment to sustainability into a dynamic world.

4. Future collaboration with host institution (if applicable)

At Reading University, after the fruitful presentation and discussion I agreed with Harley Pope to exchange the draft about my manuscript regarding indicators and metrics and to receive feedbacks from him about the system boundaries work.

From the other meetings I also developed plans about future collaborations: Kevin and I agreed in an iterative process of learning steps for each system, redefined in each case by different elements and constraints.

With Monika we agreed to keep us updated about discoveries in her project and my project and exchange knowledge and draft papers for mutual opinions and comments. The framework concept was investigated and she explained me her experience in SUSFAN project, and the meaning of some indicators.

In LCIRAH we had a discussion about the possibility to use a case study I presented for a teaching activity they will conduct.

5. Projected publications resulting or anticipated to result from the STSM

The chapter I am involved in will benefit a lot from all the feedback and discussions I have had in London. In particular I received constructive comments about how to formulate the “receipt” for people working in One Health and trying to figuring out how a system and its boundaries should be defined.

These theoretical concepts become easier to understand, if there are some concrete case studies from different disciplines and different background knowledge to add/leave out elements.

My achievement would be a list of advices that is easy to understand and to put into practice on how to handle the system boundaries concepts and how to judge that the work is done in an interdisciplinary and, most important, complete way.

After the book chapter will be handled, future work we have been thinking about with Simon and Kevin (and potentially other researchers met in London) could be a common paper describing the same concepts illustrated with cases study.

Surely we will acknowledge COST in all our publications and abstracts.

6. Confirmation by the host of the successful execution of the mission

The mission was carried on successfully and Elena was very happy about the great opportunity given by COST to concentrate on her research tasks for 8 days and getting important feedbacks from relevant researchers in the field. A separate letter from a senior researcher affiliated to the Host institution will be separately sent to the STSM coordinator.

7. Financial summary

Expenses	Total expenses in EUR	% covered by NEOH grant (EUR)
Travel	500	90% (450 EUR)
Accommodation and meals	1700	73.5% (1250 EUR)
Total	2200 EUR	77.2% (1700 EUR)

8. Other comments (if any)

Signatures

Date (Day-Month-Year)

Grantee

Host