



Economy Division



## Training Report

### Training on the Sampling and Reporting under the POPs Global Monitoring Plan in the Pacific Region

**Wednesday, 6 December – Friday, 8 December 2017**

**Apia, Samoa**

1. The hands-on training on the sampling and reporting under the UN Environment/GEF project “Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Pacific Region” (GMP2) was organised jointly by UN Environment and the Basel Convention Coordinating Centre for Capacity Building and Transfer of Technology hosted by Uruguay (BCCC-LATU). The training took place at the Tanoa Tusitala Hotel in Apia, Samoa from 6th to 8th December 2017.
2. This training was held in response to the questions aroused in the Pacific countries during the implementation of the project. The objective of this training is to ensure the sampling of air, water, human milk and matrices of national interest is following the globally agreed standard operating procedures, and to support the successful implementation of the POPs Global Monitoring Plan in the Pacific Region. The UNEP/GEF project responds to Article 16 of the convention, which requires to evaluate the effectiveness of the convention four years after entry into force then periodically, by monitoring the concentration of POPs in the environment and in humans. The project aims at producing high quality monitoring data, which is essential for evaluating the effectiveness of the Convention and for developing regulations, policies and programs. However, data quality requires good analytical capacities.

## 1. Opening of the Training

---

3. Ms. Haosong Jiao, United Nations Environment Programme Chemicals and Health Branch, opened the training. She thanked all the countries for their long-term support to UN Environment and this project, introduced the objectives of this training, and the importance of taking this opportunity to answer all questions aroused during the implementation to get best results in the project.
4. The Ministry of Environment of Samoa welcomed the participants, and expressed their best wishes to the training to be successful and fruitful.
5. The participants of the training then introduced themselves in turn, expressed the necessity of the training on ensuring the project in good practice, and their expectation of this training to be fruitful and successful.

6. Dr. Heidelore Fiedler, international expert from Örebro University, thanked the participants for brought up questions and issues to the expert laboratories and to UNEP, which raised the awareness of the importance of this training on achieving the goals of the project, and introduced the role of the expert laboratories in the POPs Global Monitoring Plan and in this training.

## 2. Adoption of the Agenda

---

7. All participants agreed with the agenda that had been circulated before the training. The training was organized in accordance with the activities under the GMP2 project, namely air sampling, water sampling, human milk survey, sampling of matrices of national interest, and reporting (see Annex 2).

## 3. Attendance

---

8. The training was conducted by Dr. Heidelore Fiedler, international expert from Örebro University. The training was attended by the following GMP national coordinators: Mr. Vincent Lao from Fiji, Mr. Teema Biku from Kiribati, Ms. Joann Kmanta from Marshall Islands, Mr. Haden Talagi from Niue, Ms. Zena Kulialang rengulbai from Palau, Mr. Lucie Isaia and Ms. Fiasosoitamalii Siasoi from Samoa, Ms. Rosemary Ruth Apa from Solomon Islands, and Mr. Faoliu Teakau from Tuvalu. Representatives from UNEP and the Secretariat of the Pacific Regional Environment Programme (SPREP) were also present at the training. The list of participants is set out in annex to this report.

## 4. Introduction to the Discussion

---

### **1.1 *Standard operating procedures for passive air sampling***

9. After a status overview for the GMP2 project in the Pacific Region, the training started from the sampling, storing, labelling and shipment of air samples. Dr. Heidelore Fiedler first shared with all participants the questions arose by different countries since the start of the air sampling activities, especially some issues occurred during the sampling and labelling procedures. National coordinators from GMP participating countries exchanged more details about natural or human factors for the delay of air sampling and rose a few more questions about the detailed procedures of air sampling. The group decided to go through every step of air sampling in accordance to the standard operating procedure. (See Annex V, training summary).

10. There are five PASs numbered 1,3,5,9,11 and three types of PUFs provided for each country for passive air sampling. It is a challenge for countries to select the correct PUF for each PAS and label the collected samples accurately. The training spent a long time going through why five PASs and 3 types of PUFs were prepared and why labelling was important. Moreover, a detailed labelling and recording table was prepared for each of the 8 countries presenting in the training. Guidance documents and the recording table prepared were circulated with national coordinators.

### **1.2 *Standard operating procedures for water sampling***

11. A presentation on the status of the water sampling activities in the Pacific Region was made, emphasizing that only for this region, all GMP participating countries were conducting water sampling. And progress was acknowledged as some countries have sent water samples to the expert laboratory. Dr. Heidelore Fiedler presented the key steps of water sampling, and answered questions about technical details raised by national coordinators, such as the depth of water to be collected and how many times the bottle should be washed. Besides, she mentioned that Bottle B was planned to be stored as back-up in case Bottle A got lost through shipment. Since all samples arrived safely, it was not needed to keep a Bottle B. For this reason, the group decided that Bottle B for 2017 would be used as Bottle A for 2018. New labels for the bottles were shared with national coordinators. Tips for the labelling and storage of water samples were also introduced during the training (See Annex V, training summary).

### **1.3 Hands-on training for the sampling of air and water**

12. In addition to the regular training sessions, on-site training on the setting up and collecting of air samples and the sampling of water was conducted. The on-site training captured more details that could hardly be reflected through in-door presentations, and by conducting one round of sampling all together, participants gained strengthened knowledge of the standard operating procedures with more attention paid to details.

13. A set of air sampler, together with PUFs in their original packages were brought to the air sampling site in Apia, Samoa. Delegates from Samoa introduced the selecting and maintaining of the air sampling site according to the UN Environment guidance documents for air sampling. Dr. Heidelore Fiedler emphasized the different labs on the PAS and different types of PUFs, and introduced in details the steps to install the samplers and tips to pay attention to. National coordinators practiced together the installation of the air sampler. This training was taken into a video for future tutorial purpose.

14. Following the on-site training at the air sampling site, a hands-on training was conducted for the sampling of water. All participants reviewed the steps of water sampling mentioned in the presentations the day before and collected together one water sample, which was used as the 4th quarter water sample of 2017 for Samoa.

15. The on-site training provided an opportunity for all participants to practice the sampling of air and water together, and more questions about detailed steps were discussed and answered. The on-site training recalled the importance of always referring to the UN Environment standard operating procedures.

### **1.4 Standard Operating Procedure or the sampling of human breast milk**

16. The Pacific Region has participated in the GMP1 project including the human milk survey. With the capacity and experience remained in the country, some countries, such as Tuvalu, Niue, Palau have made good progress with the sampling of human milk. However, challenges from some other countries mainly come from the ethical clearance and the difficulties of selecting 50 donors due to the small population.

17. Regarding the storage of human milk samples, national coordinators shared the difficulties of storage of human milk because of lack of fridge at donor's home. Solutions were discussed and the suggestions were provided that if possible, samples could be collected from hospital or directly transported back to

the laboratory. For the security of mothers, tablets are not suggested to be provided to donors. Pooled samples should be kept frozen or use dichromate tablets with careful consideration of safety. It is necessary to contact CVUA, Ms. Karin Malisch, before shipment to ensure smooth receiving of the package. For countries with small population (for example Niue, with 2 new born each year), samples could be as individuals without pooling with careful packaging. Before doing so, it is highly recommended to contact CVUA first.

18. Questions rose from national coordinators regarding how the human milk data could contribute to the national implementation plan or other obligations under the Stockholm Convention. As the Pacific Region has participated in the GMP1 project, with two rounds of data generated, there could be a trend analysis to understand the facts and set priorities for regions and countries.

19. The meeting concluded that ethical clearance should be obtained as soon as possible to facilitate the human milk sampling. UN Environment could provide official letters directly or via WHO upon request to support the sampling of human milk. Countries are suggested to keep smooth communication with UN Environment and CVUA for the collection and shipment of human milk samples.

### **1.5 *Sampling of matrices of national interest***

20. Key steps for the sampling of matrices of national interest under the GMP project was presented, including the institutional arrangements, sampling procedures, tips for labelling, storage and custom clearance. So far no samples received from the Pacific countries. Considering in some issues happened with custom clearance, the UNEP official custom clearance letter was circulated with the national coordinators again in support of the shipment of national samples. Besides, countries were suggested to select common commercial matrices and to mark them as “zero commercial value”.

21. As agreed in the GMP2 inception workshop, sampling plan for national matrices should be sent to IVM for clearance before conducting the sampling activities. Through discussion, participants shared the status of sampling of national matrices in each country, as well as their questions about how to identify the matrix and the size of sample.

22. Dr. Heidelore Fiedler went through the steps of sampling of matrices of national interest together with all participants, and explained that the quantity of samples depended on the POPs to be analyzed, thus for the analysis of dl-POPs, samples were requested to be 500g to 1kg. For the analysis of basic POPs, samples could be 100g to 200g. Fish was mandatory for all and other options like lamb, beef, egg, chicken, etc. Samples should be frozen and well packed as requested in the SOP. Given this, it is important to contact VU Amsterdam about the sampling plan so quantity and is confirmed.

23. Regarding the analytical capacity for matrices of national interest, a site visit to the national laboratory of Samoa was organized. Presentation was given by the delegates of the laboratory on the institutional arrangements, technical instruments, and the analysis of food, water and other samples.

24. Under the POPs GMP project, another important activity is the interlaboratory assessment. For the Pacific Region, only the South Pacific University has a POPs laboratory at this stage and has participated in all the past 3 rounds of interlaboratory assessment. Dr. Heidelore Fiedler introduced the adding value of interlaboratory assessment on capacity building and intercalibration performance checking, and

encouraged the national laboratory of Samoa and USP to register for the 4th interlaboratory assessment in 2018.

## **1.6 Preparing reports for the POPs GMP project**

25. The training was organized in a way that promoting maximum discussions among experts, national coordinators and other stakeholders. With training on the standard operating procedures for the sampling, labelling, storage and shipment of air, water, human milk and national samples conducted, and with countries presented their progress and their questions answered, the third day training started with the discussion on the reporting as requested under the GMP project.

26. A list of reports requested as indicated in the project agreements were listed, including national workplan, and interim substantive and expenditure reports. As one appendix of the project agreement, a standard workplan has been provided since the agreement was signed. Based on this, countries were encouraged to develop their own workplan if needed according to their institutional arrangements and any other factors. One good example was presented in the training.

27. Due to the late start of the project, there was some delay and questions regarding the interim reports. Taken the training opportunity, an example of substantive and financial reports were presented. It was emphasized that countries should indicate clearly the reporting period, concrete progress under each activity, the initial budget and actual expenditures, as well as the subtotals and the total expenditure. It is also important to submit the interim reports on time.

28. Through the training, delegates from the GMP Pacific countries have strengthened communication and information exchange regarding the progress of sampling activities, and concluded to keep frequent and smooth communication with each other to support each other for the successful delivery of all activities in high quality.

## **2.8 Final remarks**

29. GMP Pacific countries and national coordinators are familiar with the standard operating procedures UN Environment prepared in support of the sampling of air, water, human milk and matrices of national interest

30. GMP Pacific countries and national coordinators are equipped with the necessary knowledge foundation to conduct the sampling of air, water, human milk and matrices of national interest following the correct procedures

31. GMP Pacific countries and national coordinators are sensitized about the importance of submitting the interim reports on time and in correct format

32. Opportunities for the regional cooperation are identified and explored

## List of Annexes:

- **Annex I: Agenda**
  - **Annex II: Concept note**
  - **Annex III: List of participants**
  - **Annex III: Training summary**
-



Economy Division



## Annex I: Agenda

### Training on the Sampling and Reporting under the POPs Global Monitoring Plan in the Pacific Region

6-8 December, 2017

Apia, Samoa

**Target audience:** National coordinators of the POPs Global Monitoring Plan from Fiji, Kiribati, Marshall Islands, Niue, Palau, Samoa, Solomon Islands Tuvalu and Vanuatu.

**Objectives:**

- Support the successful implementation of the POPs Global Monitoring Plan in the Pacific Region;
- To ensure the sampling of air, water, human milk and matrices of national interest is following the globally agreed standard operating procedures;

Time	Agenda Item	Presenter
<b>Wednesday, 6<sup>th</sup> December, 2017</b>		
<b>Day 1: Training on Air and Water Sampling under the POPs Global Monitoring Plan</b>		
9:00 – 9:15	Introduction of participants	All participants
9:15 – 9:30	Introduction of the objectives and arrangement of the training	Haosong Jiao (Chemicals and Health Branch)
9:30 – 10:30	Training on air sampling: <ul style="list-style-type: none"> <li>• Overview;</li> <li>• Standard operating procedure for air sampling;</li> <li>• Q&amp;A on air sampling</li> </ul>	Heidlore Fiedler (MTM), All participants
10:30 – 10:45	<i>Coffee Break</i>	All participant

10:45 – 12:00	Training on water sampling: <ul style="list-style-type: none"> <li>• Overview;</li> <li>• Standard operating procedure for water sampling;</li> <li>• Q&amp;A on water sampling</li> </ul>	Heidelore Fiedler (MTM), All participants
12:00 – 13:00	<i>Lunch Break</i>	
13:00 – 13:30	<i>Transfer to the air sampling site</i>	<i>All participants</i>
13:00 – 15:30	At the air sampling site: <ul style="list-style-type: none"> <li>• Tutorial on the setting up, collecting, labelling, storing and shipment of air samples</li> <li>• Q&amp;A on air sampling</li> </ul>	All participants
15:30 – 16:00	<i>Transfer from the air sampling site to the water sampling site</i>	
16:00 – 17:00	At the water sampling site: <ul style="list-style-type: none"> <li>• Tutorial on the collecting, labelling, storing and shipment of water samples</li> <li>• Q&amp;A on water sampling</li> </ul>	All participants
17:00 – 17:30	Wrap up of the training on air and water sampling	Haosong Jiao (Chemicals and Health Branch)
<b>Thursday, 7<sup>th</sup> December, 2017</b>		
<b>Day 2: Training on the Sampling of Human Milk and Matrices of National Interest</b>		
9:00 – 9:30	Presentation of countries on the status of sampling of human milk, including questions aroused during the implementation.	All participants
9:30 – 10:30	Training on human milk sampling: <ul style="list-style-type: none"> <li>• Overview;</li> <li>• Standard operating procedure for human milk sampling;</li> <li>• Q&amp;A on human milk sampling</li> </ul>	Heidelore Fiedler (MTM)
10:30 – 10:45	<i>Coffee Break</i>	
10:45 – 12:30	Presentation of countries on the status of sampling of human milk samples, including questions aroused during the implementation.	All participants
12:00 – 13:30	<i>Lunch Break</i>	



13:30 – 15:00	Training on the sampling of matrices of national interest: <ul style="list-style-type: none"> <li>• Overview;</li> <li>• Standard operating procedure for national samples;</li> <li>• Q&amp;A on national samples</li> </ul>	All participants
15:00 – 15:30	<i>Coffee Break</i>	
15:30 – 17:00	Training on the sampling of matrices of national interest (cont.)	All participants
17:00 – 17:30	Wrap up of the training on human milk survey and on the sampling of matrices of national interest	Haosong Jiao (Chemicals and Health Branch)
<b>Friday, 8<sup>th</sup> December, 2017</b>		
<b>Day 3: Tutorial on the Preparation of the Workplan and Reports for the POPs Global Monitoring Plan</b>		
9:00 – 9:30	Requirements for the national workplan, progress reports, financial reports and interim reports as requested by the POPs Global Monitoring Plan	Haosong Jiao (Chemicals and Health Branch)
9:30 – 10:15	A case study of the national workplan	Heidlore Fiedler (MTM)
10:15 – 10:30	<i>Coffee Break</i>	
10:30 – 11:00	Working group exercise on the revision of national workplans	All participants
11:00 – 11:30	Discussion and expert review on national workplans	Heidlore Fiedler (MTM)
11:30 – 12:00	Group discussion on the preparation of national reports requested by the POPs Global Monitoring Plan: <ul style="list-style-type: none"> <li>• Status quo of the preparation of the requested reports in each country</li> <li>• Q&amp;A on the report templates and relevant issues</li> <li>• Other elements to consider</li> </ul>	All participants
12:00 – 12:15	Discussions on follow-up activities to be implemented	All participants
12:15 – 12:30	Wrap up of the training	Haosong Jiao (Chemicals and Health Branch)



Economy Division



## Annex II: Concept Note

---

### Training on the Sampling and Reporting under the POPs Global Monitoring Plan in the Pacific Region

Wednesday, 6 December – Friday, 8 December 2017

Apia, Samoa

#### Concept Note

##### A) Operating Details:

- **Subject:** Training on the Dioxin and Furan Inventories under the National Implementation Plans and Training on the Sampling and Reporting under the POPs Global Monitoring Plan in the Pacific Region.
- **Dates and time:** Wednesday, 6 December 2017 – Friday, 8 December 2017.
- **Venue:** Tanoa Tusitala Hotel  
P.O.Box 101  
Beach Street,  
Sogi, Apia  
Samoa  
Tel.: (685) 211 22  
Mobil: (685) 770 0112  
Email: [conferencing.tth@tanoahotels.com](mailto:conferencing.tth@tanoahotels.com)  
Website: [www.tanuatusitala.com](http://www.tanuatusitala.com)
- **Participants:** National coordinators of the POPs Global Monitoring Plan from Fiji, Kiribati, Marshall Islands, Niue, Palau, Samoa, Solomon Islands Tuvalu and Vanuatu.
- **Contact persons:** Ms. Haosong Jiao (E-mail: [haosong.jiao@un.org](mailto:haosong.jiao@un.org)) at UN Environment.

##### B) Objectives

- Support the successful implementation of the POPs Global Monitoring Plan in the Pacific Region;
- To ensure the sampling of air, water, human milk and matrices of national interest is following the globally agreed standard operating procedures.

##### C) Background

Persistent organic pollutants (POPs) are a group of chemicals including those that had/have been widely used in agricultural and industrial practices and those unintentionally produced and released from many anthropogenic activities around the globe. The Stockholm Convention on Persistent Organic Pollutants was

established in May 2001 to “protect human health and the environment from persistent organic pollutants by reducing or eliminating releases to the environment”, with 28 substances having been addressed under the Convention until the eighth Conference of Parties held in April 2017.

Article 16 of the Stockholm Convention indicates every four-year after the date of entry into force an effectiveness evaluation of the Convention, including a Global Monitoring Plan (GMP), which records the presence of POPs in the environment and in humans at regional basis. UN Environment Chemicals and Health Branch with financial assistance from the Global Environment Facility (GEF), conducted the first Global Monitoring Plan in parallel in Africa, Latin America and the Caribbean, and the Pacific Islands Regions from 2009 to 2012. These projects enabled provision of quality data on human exposure and environmental concentration of the 12 POPs originally included for the effectiveness evaluation. In decision SC-6/23, the COP requested the Secretariat “to continue to support training and capacity-building activities to assist countries in implementing the global monitoring plan for subsequent effectiveness evaluations and to work with partners and other relevant organizations to undertake implementation activities”. UN Environment is implementing four GEF MSP POPs Global Monitoring Plan follow-up projects in the African, Asian, Latin America and the Caribbean and Pacific Islands Regions (GEF IDs 4886, 4894, 4881, and 6978) from 2016 to 2020. The projects focused initially on the 23 POPs listed in the Stockholm Convention in core matrix human milk to examine human exposure, water and core matrix of national interest to examine environmental exposure, and ambient air to examine long-range transport.

UN Environment is the executing agency for the Africa, Asian and Pacific Regions. The Stockholm Convention Regional Centre (SCRC) in Uruguay is the executing agency for the GRULAC region. The projects are implemented in close cooperation with, among others, the Secretariat of the Basel, Rotterdam and Stockholm Conventions (BRS Secretariat), the World Health Organization (WHO), UNITAR, and five expert laboratories (IVM VU University, MTM Oerebro, CSIC, CVUA, and RECETOX). The objective of the GMP2 projects is to strengthen the capacity for implementation of the updated POPs GMP, and to create the conditions for sustainable monitoring of the 23 POPs in each region.

In the Pacific region, with the project being implemented, questions regarding the operating procedures, labelling of samples, etc. Hands-on training ensuring countries are following the correct operating procedures is necessary to guarantee the quality of sampling under the GMP project and to further support countries on their obligations under the Stockholm Conventions. The objective of this training is to ensure the sampling of air, water, human milk and matrices of national interest is following the globally agreed standard operating procedures, and to support the successful implementation of the POPs Global Monitoring Plan in the Pacific Region.



Economy Division



## Annex IV: List of Participants

---

### GOVERNMENTS

#### **FIJI**

Mr. Vincent Lal  
Institute of Applied Sciences  
The University of the South Pacific  
Laulala Campus  
Suva, Fiji  
Email: [vincent.vishant.lal@gmail.com](mailto:vincent.vishant.lal@gmail.com)

#### **KIRIBATI**

Mr. Teema Biko  
Waste Management Officer  
Environment and Conservation Division  
Ministry of Environment, Lands and Agriculture  
Development  
P.O. Box 234  
Bikenibeu, Tarawa  
Kiribati  
Tel: +686 28000 / 28211  
Fax: +686 28334  
E-mail: [teemab@environment.gov.ki](mailto:teemab@environment.gov.ki)

#### **MARSHALL ISLANDS**

Ms. Joann Komanta  
Awareness Division  
RMI Environmental Protection  
Authority  
P.O. Box 1322  
Majuro 96960  
Marshall Islands  
Tel: +692 625 3035  
Fax: +692 625 5202  
E-mail: [jkomanta@gmail.com](mailto:jkomanta@gmail.com)

#### **NIUE**

Mr. Haden Talagi  
Department of Environment  
Ministry of Natural Resources  
Niue  
Email: [Haden.Talagi@mail.gov.nu](mailto:Haden.Talagi@mail.gov.nu)

#### **PALAU**

Mrs. Zena Kulialang Rengulbai  
Environmental Outreach Officer  
Environmental Quality Protection Board  
Koror  
Palau  
Email: [eqpb.outreach@gmail.com](mailto:eqpb.outreach@gmail.com),  
[eqpb@palaunet.com](mailto:eqpb@palaunet.com)

#### **SAMOA**

Mr. Lucie Isaia  
Senior Chemicals and Hazardous  
Waste Officer  
Division of Environment and  
Conservation  
Ministry of Natural Resources and Environment  
TATTE Building  
Apia  
Samoa  
Tel: +685 67200  
Fax: +685 23176  
E-mail: [lucie.isaia@mnre.gov.ws](mailto:lucie.isaia@mnre.gov.ws)

Ms. Fiasosoitamalii Siaosi  
Principal Chemical and Hazardous  
Waste Officer  
Division of Environment and  
Conservation  
Ministry of Natural Resources and Environment.

TATTE Building

Apia

Samoa

Tel: +685 67200

Fax: +685 23176

E-mail: [fiasoso.siaosi@mnre.gov.ws](mailto:fiasoso.siaosi@mnre.gov.ws)

**SOLOMON ISLANDS**

Ms. Rosemary Ruth Apa

Chief Environment Officer

Environment and Conservation Division

Ministry of Environment, Climate Change,

Disaster Management and Meteorology

Vavaya Ridge, P.O. Box 21

Honiara

Solomon Islands

Tel: +677 26 036

Fax: +677 28 054

E-mail: [rosemaryapa@gmail.com](mailto:rosemaryapa@gmail.com)

**TUVALU**

Mr. Faoliu Teakau

Department of Environment,

Ministry of Foreign Affairs, Trade, Tourism,

Environment and Labour

GPO Vaiaku

Funafuti

Tuvalu

E-mail: [fteakau@gmail.com](mailto:fteakau@gmail.com)

**ORGANIZATIONS**

**SECRETARIAT OF THE PACIFIC  
REGIONAL ENVIRONMENT  
PROGRAMME (SPREP)**

Dr. Frank K. Griffin

Hazardous Waste Management Adviser

Secretariat of the Pacific Regional Environment

Programme

P.O. Box 240

Apia

Samoa

Tel: +685 21929 Ext 336

Mob: +685 7722642; +685 7601439

E-mail: [frankg@sprep.org](mailto:frankg@sprep.org)

**UNITED NATIONS ENVIRONMENT  
PROGRAMME (UNEP)**

Ms. Haosong Jiao

Science and Knowledge Unit

Chemicals and Health Branch

Economy Division

United Nations Environment Programme

International Environment House-1

11-13 chemin des Anémones, Chatelaine

1219 Geneva

Switzerland

Tel: +41 22 917 8350

Fax: +41 22 797 3460

E-mail: [haosong.jiao@un.org](mailto:haosong.jiao@un.org)

**EXPERT**

**ÖREBRO UNIVERSITY**

Ms. Heidelore Fiedler

Professor of Chemistry

Örebro University

Man-Technology- Environment Research Centre

(MTM Research Centre)

SE-70182 Örebro

Sweden

Tel: +46 (19) 303-153

Mobile: +46 (72) 578-5129

E-mail: [Heidelore.fiedler@oru.se](mailto:Heidelore.fiedler@oru.se)