

**Professional Development Seminar on Modeling Strategies and Decision-Support Tools
For the Management of Complex Socio-Ecological Systems**

23 - 28 March 2014 - Antigua, Guatemala

Hotel Soleil La Antigua – Meeting Room: Los Volcanes Agua

AGENDA (23/03/2014)

23 MARCH (SUNDAY)

Arrivals

Check in (hotel): 15:00

17:30 – 19:30 - Welcome

- Introduction to the seminar goals and agenda
- Overview of seminar activities
- Training Institute Seed Grant (TISG) program presentation: Description and Guidelines

Organizers

- Participants Introduction

19:30 – Welcome Reception and Dinner (hotel)

24 MARCH (MONDAY)

9:00 – 11:00

Conceptualization; definition of the problems and question framing (scientific, political); methodological approach (*Moira Zellner, Daniel Castillo, Thomas Seager*) 10 min. each

Modeling techniques: 1) Life cycle analysis; 2) System dynamics; 3) Agent based
(*Thomas Seager, Daniel Castillo, Moira Zellner*) 10 min. each

The process of interdisciplinary research that is policy relevant: interdisciplinary team formation, dialogue, respect for disciplinary knowledge and alternative visions and approaches (*Kathy Halvorsen, Claudia Natenzon, others*) 10 min. each

How to incorporate Ethics and Values in the conceptualization – Introduction (*Thomas Seager*) 30 min.

11:00 – 11:15 - Coffee Break

11:15 – 13:15

Introduction to the field trip: local problem, social actors, challenges and opportunities for the science-policy dialogue (*Edwin Castellanos*) 60 min.

Participatory conceptualization of the case study/local problem of Guatemala (Tuesday field trip) *Participants* 60 min.

13:15 – 14:30 - Lunch

14:30 – 16:30

Interdisciplinary Scientific Team Management Skills (*Kathy Halvorsen*) 30 min.

Analytical frameworks for interdisciplinary research on socioecological systems (*Daniel Castillo*) 20 min.

Proposal development: experiences and tips – Panel 70 min.

(*Moira Zellner, Daniel Castillo, Thomas Seager, Kathy Halvorsen, Guillermo Podesta, Claudia Natenzon, Edwin Castellanos, Marcella Ohira*)

Questions, Discussion *Participants*

16:30 – 16:45 – Coffee Break

16:45 – 18:00

Initial hands-on exercise: Conceptualization of a problem for a seed grant project (TISG)

Identification of a problem; social actors; socioeconomic and environmental processes; interactions

Participants

18:00 – 19:00

Happy Hour – participants discussion; team formation for seed grant proposals

25 MARCH (TUESDAY)

- **Field trip to the Lake Atitlán - Objective:** Learn first hand the issues and actors involved in the management of the Lake Atitlan basins as an example of complex socio-ecological problem

Edwin Castellanos and local decision makers

Schedule	Activity	Place	Responsable
7:00 – 9:30	Departure from Antigua to Panajachel	Stop in Cerro Lec	Dr. Edwin Castellanos, Centro de Estudios Ambientales y Biodiversidad (CEAB-UVG)
9:30 - 9:45	Transfer to Pamuch		
9:45 – 10:45	Presentation river basin Authority	“Planta de reciclaje de desechos sólidos”, Pamuch	Dr. Iván Azurdia, Executive Director AMSCLAE
10:45 – 11:00	Transfer to Treatment Plant, Municipality of Panajachel Panajachel, stopping in Panajachel River		
11:00 – 12:00	Presentation local government sector	Water Treatment Plant “Los Cebollales 1”	Sr. Abraham Mayen, Alcalde Panajachel
12:00 – 12:15	Transfer to Buena Ventura Reservation		
12:15 – 13:15	Presentation private sector (hotels)	Buena Ventura Reservation	Dr. Alberto Rivera, Coordinator by Lake
13:15 – 14:15	Lunch	Hotel Atitlán	
14:15 – 14:45	Transfer to Campus UVG Altiplano, Sololá		
14:45 – 15:15	Visit to Campus UVG Altiplano	Campus UVG Altiplano	PhD. Mónica Orozco y Lic. Tereso Joj Cosme, Campus UVG Altiplano
15:15 – 16:00	Presentation about Lake Atitlan problems and possible solutions	Campus UVG Altiplano, Virtual class	Dra. Margaret Dix, Centro de Estudios Atitlán (CEA-UVG)
16:00 – 18:00	Return to Antigua		
18:00 – 19:00	Exercise: Game of ethics and values	Hotel Soleil	Dr. Thomas P. Seager, Arizona State University

26 MARCH (WEDNESDAY)

9:00 – 11:00

Life cycle analysis modeling technique (*Thomas Seager*)

What kind of questions?

What are the advantages and disadvantages of this technique compared to the other two?

What are the limitations of each model?

When to use this technique?

Examples

11:00 – 11:15 - Coffee Break

11:15 – 13:15

System Dynamics modeling technique (*Daniel Castillo*)

What kind of questions?

What are the advantages and disadvantages of this technique compared to the other two?

What are the limitations of each model?

When to use this technique?

Examples

13:15 – 14:15 - Lunch

14:15 – 16:15

Agent based modeling technique (*Maira Zellner*)

What kind of questions?

What are the advantages and disadvantages of this technique compared to the other two?

What are the limitations of each model?

When to use this technique?

What kind of problems is this technique more suitable for?

Examples

16:15 – 16:30 – Coffee Break

16:30 – 18:00

Evaluation of the Game on Ethics and Values and comparison with the 3 techniques (*Thomas Seager*) 90min

After 18:00: Participants working groups: Development of Letters of Intent (LoI)

27 MARCH (THURSDAY)

9:00 – 11:00

Life cycle analysis technique (*Thomas Seager*)

How to take ethics and values into account in this technique?

How does it apply to the seed grant proposal ideas (socioecological problems the projects address)?

11:00 – 11:15 - Coffee Break

11:15 – 13:15

System Dynamics technique (*Daniel Castillo*)

How to take ethics and values into account in this technique?

How does it apply to the seed grant proposal ideas (socioecological problems the projects address)?

13:15 – 14:15 - Lunch

14:15 – 16:15

Agent based technique (*Maira Zellner*)

How to take ethics and values into account in this technique?

How does it apply to the seed grant proposal ideas (socioecological problems the projects address)?

16:15 – 16:30 – Coffee Break

16:30 – 18:30

Discussion of the 3 techniques in relation to the seed grant project ideas (*Participants and facilitators*)

Working groups: Development of Letters of Intent

20:00 – Farewell dinner

28 MARCH (FRIDAY)

8:00 – 9:30 Participants working groups: Development of Letters of Intent (LoI)

9:30 – Submission of Lols (2 pages)

9:30 – 11:00

Participants working groups: Prepare presentation of Lols for plenary session

Organizers: Evaluation of Lols

11:00 – 11:15 - Coffee Break

11:15 – 13:00 Plenary session

Working Groups: Presentation of Lols (10 min. each)

Letters of Intent - Feedback from organizers

13:00 – 14:00 - Lunch

14:00 – 16:00

Participants working groups: Development of Letters of Intent taking into account feedback from organizers

16:00 – 16:15 - Coffee Break

16:15 – 17:30

Evaluation of the Guatemala seminar program and activities, suggestions for activities between the Guatemala and Panama, and for the seminar program in Panama

17:30 – Adjourn

29 MARCH (SATURDAY)

Departures

Check out (hotel): 12:00 noon