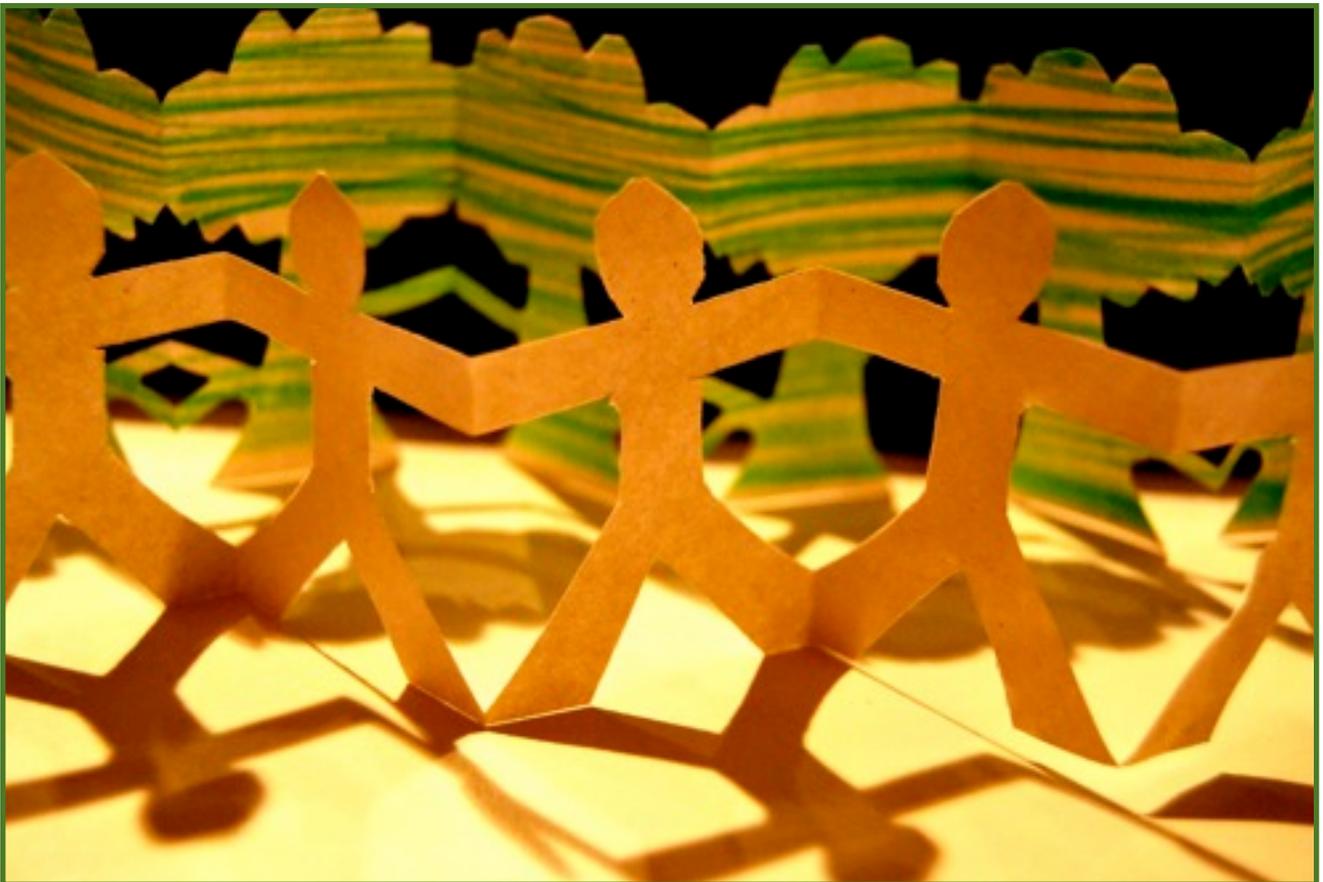


Applying a Social-Ecological Inventory: *A workbook for finding the key actors and engaging them*



INTRODUCTION

What is a Social-Ecological Inventory (SEI)?

SEI's were initially proposed as a tool for biodiversity conservation managers, to identify not only the ecological values of a region, but also the local stewards*, i.e. the people that sustain these values, through monitoring, management, and continuous learning. In this workbook, we have developed this idea into a more generic tool, that identifies *existing knowledge and activities already underway in a region, as well as the key actors involved* with regards to a particular issue.

How do they work?

SEIs have been applied in Kristianstads Vattenrike Biosphere Reserve (Sweden) and Niagara Region (Canada). This workbook is based on those experiences as well as similar approaches elsewhere.

In short, a SEI:

- is a way to systematically map actors, their values, motives, activities, knowledge, experiences over time, and networks;
- prepares the ground for participation, as it both helps identify and select the most appropriate set of actors to work with, and builds trust with these actors; and
- provides a starting point for understanding and enhancing a regions' sustainability and resilience.

* see "key terms" for definition



Photo: Patrik Olofsson

In Kristianstads Vattenrike Biosphere Reserve SEIs were used to identify local stewards of the landscape.

This example took place in a river basin in southern Sweden where researchers searched for local steward groups and their ecosystem management activities, and sought to understand their motives and links to other actors involved in ecosystem management.

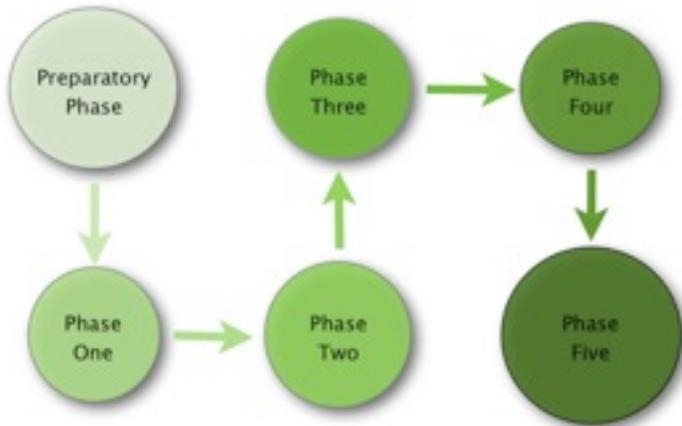
In the Niagara Region SEIs were used to identify actors engaged in climate change adaptation.

This example is currently taking place in Southern Ontario, Canada, where researchers are searching for bridging networks who play an important role in decision making around climate change in the Niagara Region.



Photo: Samantha Purdy

FLOWCHART



This workbook is designed to help you use SEIs in a step by step process. There are six general phases in a SEI as illustrated in the flowchart (left). This flowchart represents a 'generic' process developed from initial applications. It is intended as a guide, and in reality is not always a linear process. It often is dynamic and iterative.

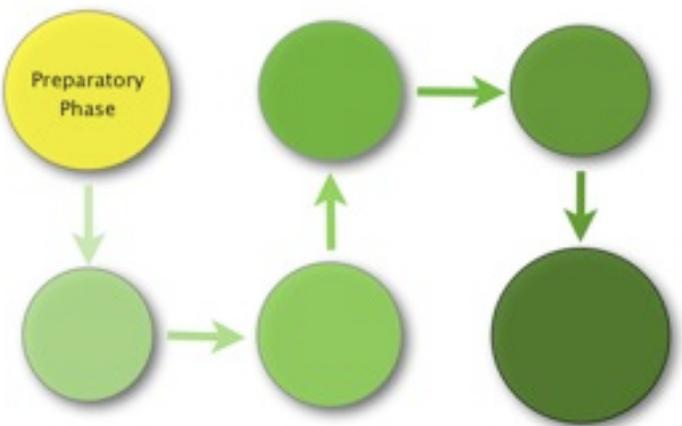
PREPARATORY PHASE: BEFORE YOU BEGIN

The Preparatory Phase aims at clarifying the "why, what, where, and when" of your SEI. This phase helps you focus and set the expectations right, both for you and for the people you will interview.

Things to be aware of throughout the SEI:

- Collective ownership of the knowledge;
- Respecting different world views;
- Respecting stakeholders' time; and
- Remaining an active and open listener, while at the same time take responsibility to keep the process focused.

Before you begin your SEI, think through what you aim to achieve with the SEI, what you can realistically promise to stakeholders, and the time and resources you can put into the process. Determine the focus of your SEI, even though this might change as you start engaging with stakeholders. Finally, consider the research ethics of your organization, and find out if you need any permissions before you engage with stakeholders in the region.



Ask yourself

1. What are my main objectives?
2. Who will own this knowledge, and what are my research protocols?
3. What relationships should be established?
4. What do I expect to get out of (find in) this process?
5. What knowledge will I share with the people I interview, and what kind of information do I expect to receive from them?

PHASE ONE: PRELIMINARY IDENTIFICATION

Once you have followed the guidelines in the Preparatory Phase, it is time to begin the inventory. In Phase One, you create a list of potentially important actors, based on written information and suggestions from bridging actors (if available). Useful tools for this process include internet search engines (such as google), registers of associations, local branches of national associations, registers of landowners, land-use maps, and local resource users who spend a lot of time in the landscape.

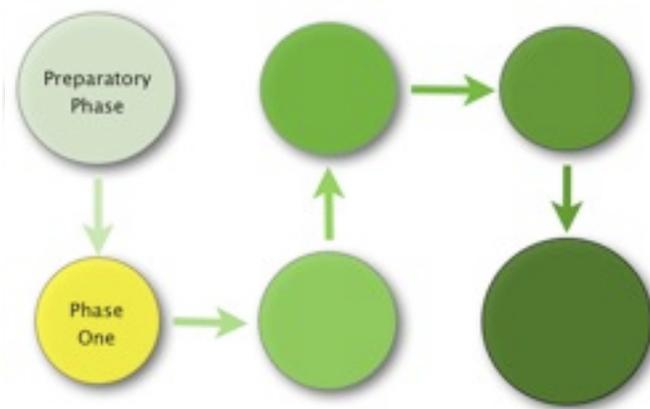
- Create a list of potentially important groups and individuals.
- Use a chart (example below) to organize a list of who should be contacted. Keep a column for when someone refers you to someone else, because this will be extremely helpful in the subsequent phases.

Information from this phase will make Phase Two go faster for both participating stakeholders and yourself, so be sure to get as much information as possible.

Ask yourself

What groups and individuals are actively involved in the issue?

If available, use bridging actors* as a starting point for reaching the actors in their networks (drawing on their experience and local knowledge).



Group (Contact info)	Individual (Contact info)	Referred to (other individuals or groups) (Contact info)

Example of a contact sheet filled in:

Group (Contact info)	Individual (Contact info)	Referred to (other individuals or groups) (Contact info)
Conservation Authority (E-mail: iloveplants@em ail.com , Phone: 555-659-1245)	Jane Green (same as group, with extension: 6789)	John Seedling from Grasscycle Inc. (E-mail: seedling.j@grasscycle.com , Phone: 555-456-9852)

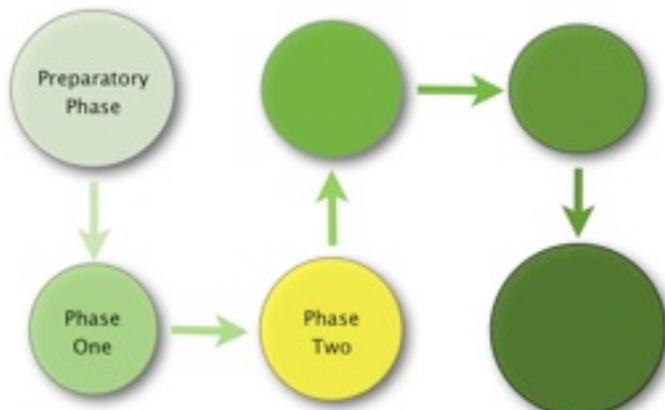
Note: In this phase you will only be filling out the first two columns. The “referred to” column will be helpful in later phases.

PHASE TWO: IDENTIFYING KEY INFORMANTS

In Phase Two you identify key informants through pre-interview screening and set up formal interviews for the next phase. In your initial contacts:

- explain the project and focus of your SEI
- ask who would be a good person to talk to
- gauge interest, perception of the issue, and connections to other groups

In this phase you will use the chart you created in the last phase to keep your information organised and easily accessible. Make sure to clarify expectations, both yours and the stakeholders', and be honest in what you will be able to deliver.



Ask yourself

- Are there names that are consistently put forward by other stakeholders?
- Who is being left out?
- Who are the gate-keepers*, bridging actors*, isolates*, and shadow networks*?

Ask yourself: “Who would be a good person to talk to?” Document if stakeholders decline and why, as well as individuals you decide to exclude and why.

Note: If you find that there are a large number of stakeholders, make sure to be cautious when eliminating them, because not all stakeholders will have the time or desire to connect with you.

Example: Kristianstads Vattenrike

In Kristianstads Vattenrike, ten groups of local stewards emerged, and sixteen key informants were identified through the pre-interview screening process. These individuals were either identified as knowledgeable and experienced by their peers, or were part of several groups, and they were willing to participate.

Example: Niagara Region

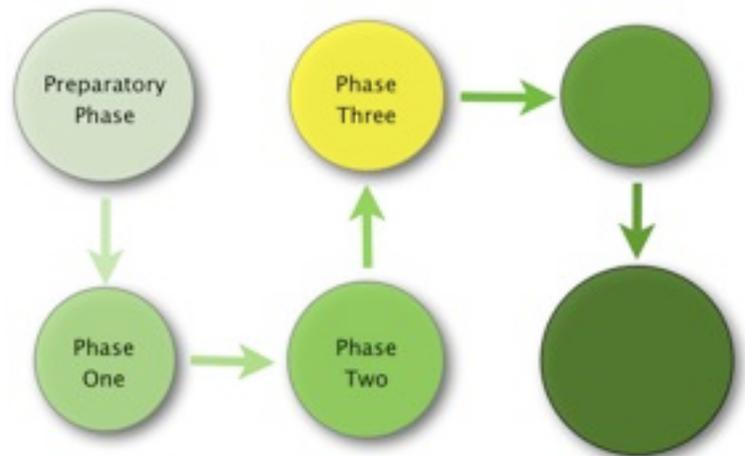
Researches began by scoping key environmental/ecosystem management activities in the Niagara Region and who was involved in these. Then looked at local and regional government activities that engaged the community and contacted those who were involved. This gave them the major key people in many sectors. They contacted and asked these key people if they were willing to participate.

PHASE THREE: INTERVIEWING KEY INFORMANTS

The earlier phases have helped you come to the formal interview stage well prepared. Now it is time to develop an interview guide, based on your objective/s and the information you have gathered and need. Read the documents you have found and been given, and try your best to focus the interview on information that is not already documented. This will build trust between you and the informants, and it will save time for all involved.

During the interviews strive to:

- appreciate values and priorities of stakeholders;
- develop an understanding of the past, present and future activities stakeholders are involved in;
- understand the motives behind stakeholder activities;
- examine the inclusion and exclusion of the needs of individuals;
- remain transparent and open throughout the interview stage.



Note: To ensure clarity, be sure that you have tested your questions, and be cautious of requirements surrounding ethics clearance of organizations.

<u>Example of an Interview Sheet</u>	
Interviewee: _____	Interviewed by: _____ Date: _____
1. Please describe how you are involved in climate change adaptation in the Niagara Region.	

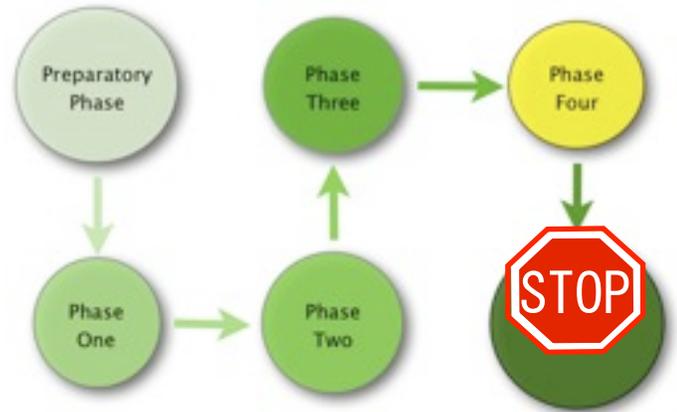
2. What were your main motivations behind participating in _____(above),	

3. What would you say are the main benefits of these activities?	

4. Do you have anyone in mind that I should contact that would be considered a key person in this area?	

PHASE FOUR: ENRICHING THE PICTURE

Time to pause and reflect. At this time look for trends, insights, unexpected issues that have occurred through the interview process. Use your interview recordings, as well as the documents you have collected and received from informants. Then, make sure to share the knowledge and information with participants as agreed. In some cases, this is best done in Phase Five, through engagement. In others, you can broker information between groups.



Ask yourself

- *Who is emerging as a leader?*
- *What are the power relationships?*
- *What governance strengths and weaknesses are identified?*
- *What knowledge do various groups bring?*
- *What information is still lacking?*



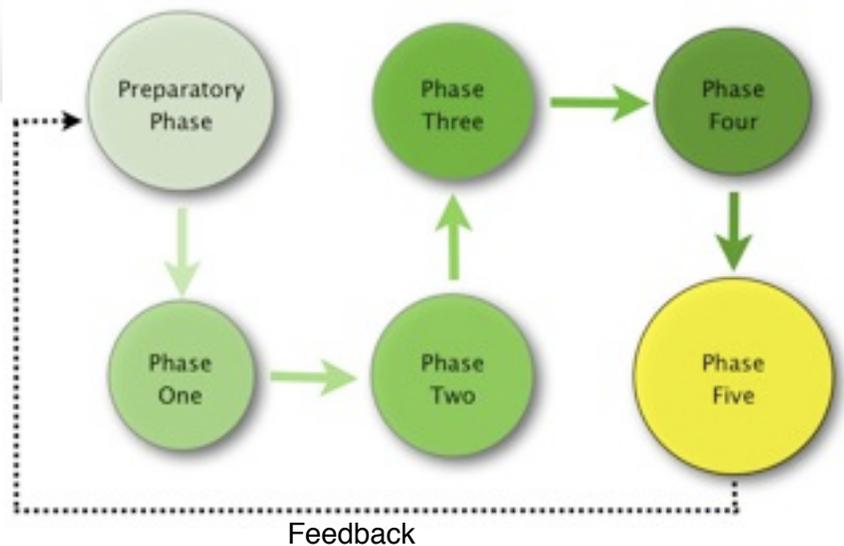
PHASE 5: ENGAGEMENT

This phase can take many different forms. The common intention is to engage the key actors through a series of facilitated events (resilience assessments, meetings, conferences etc.) that will get them to interact with each other. This will be done by providing a platform for dialogue and collectively addressing common concerns voiced in the interview phase. You will need to provide a transparent, informed and facilitated process. Continue to build upon the trust relationships already begun and create the environment for more to develop between stakeholders. This step is not the end, but the potential beginning of new SEIs, so when you've reached Phase Five, it may feel as though the SEI is starting from the beginning again.

Anticipate & Embrace Feedback

The final flowchart demonstrates how the end of your work, is a new beginning. As interaction continues, the platform becomes the basis to address common concerns, take action, and learn.

In the end, the end is actually just the beginning!



USEFULNESS OF SOCIAL-ECOLOGICAL INVENTORIES

SEIs will be beneficial to different users and stakeholders in various ways. Some examples are listed in the chart below.

<i>Research</i>	<i>Practical Management</i>	<i>Local stewards/participants</i>
<ul style="list-style-type: none"> • Basis for participatory evaluation, e.g. periodic review of biosphere reserves and resilience assessments • Basis for participatory monitoring • Basis for comparative studies of stewardship • Basis for understanding social-ecological dynamics 	<ul style="list-style-type: none"> • Improved accuracy, as the knowledge and needs of stakeholders are taken into account • Improved responsiveness, as information flows and coordination between groups improve • Legitimacy • Trust-building, social capital, social learning 	<ul style="list-style-type: none"> • Acknowledgement and respect for efforts already undertaken • Connect to power, resources and knowledge at other scales • Power sharing • Capacity-building (e.g. For co-construction and co-production) • Opportunities for collaboration and networking

POTENTIAL PITFALLS AND CONSTRAINTS

Although going through the process of the SEI can be extremely useful and beneficial, there are a few areas in which there are limitations. For example:

- they are sensitive to the views of the initiator (what is the issue, what is an important activity with regards to this issue, what is valuable knowledge);
- if promises are not kept, there is a risk of “effort without effect”, which may in the end erode social capital and make it harder to set up a participatory process the next time; and
- due to the focus on positive contributions, using a SEI model has the potential to overlook negative impacts that may also be occurring.

KEY TERMS

- Bridging actors** - Individuals or organizations coordinating and connecting many of the local steward groups to organizations and institutions at other levels.
- Gatekeepers** - A person who controls access or flow of information to a network.
- Isolates** - Individuals, that do not actively participate in, or are left out of groups.
- Shadow networks** - Groups of actors that are informally connected and operate outside the formal networks.
- Local stewards** - people who are actively engaged in managing and monitoring an area.

ACKNOWLEDGEMENTS

This workbook was prepared by:

Lisen Schultz, Ryan Plummer, & Samantha Purdy

This workbook came from a climate change adaptation workshop held at Brock University on March 7-8, 2011 titled: *“Social-ecological inventories: Building Resilience to Environmental Change within Biosphere Reserves”*.

Contributors to this workshop include: Adam Fenech, Marc-André Guertin, Brad May, Richard Mitchell, Kerrie Pickering, Ryan Plummer, Rebecca Pollock, Maureen Reed, Lisen Schultz, Åsa Swartling, & Liette Vasseur.

The social-ecological inventory tool was first described in Schultz, L., Folke, C. and Olsson, P. 2007. Enhancing ecosystem management through social-ecological inventories. Lessons learned from Kristianstads Vattenrike Biosphere Reserve. *Environmental Conservation* 34: 140-152.

Support for the workshop and the creation of this workbook was generously provided by the Grants and Contributions Agreement between Environment Canada and Brock University. The participation of scholars in the workshop was facilitated through a Letter of Agreement involving Brock University, Environment Canada, and the Stockholm Environmental Institute. Lisen Schultz work was funded by Ebba and Sven Schwartz stiftelse, and MISTRA.

We would also like to thank all workshop participants for their contributions and Allyson Quinlan at the Resilience Alliance for her encouragement.

CONTACT INFORMATION

If you have questions or feedback on this workbook, please contact Lisen Schultz at lisen.schultz@stockholmresilience.su.se

