

## January-May, 2019



# **LOCAL WORKS (E3 BUREAU / LOCAL SUSTAINABILITY OFFICE)**

## **SYSTEMS THINKING TRAINING FOR ASIA AND LATIN AMERICA COHORTS**

### **AFTER ACTION REPORT**

**A Report on Systems Thinking Training held in Bangkok, Thailand and Mexico City, Mexico from January through May, 2019**

**October 28, 2019**

#### **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

This publication is prepared by Dr. Sibel McGee and Frances Veasey of ANSER, a consortium partner, with inputs from the entire training team.

Cover photo: A Participant briefs back results from an exercise conducted as part of Systems Thinking Training in Bangkok, Thailand.

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# Training Overview

<b>Training Name:</b>	Systems Thinking Training for Asia and Latin America Cohorts
<b>Locations and Dates:</b>	<p>Mexico City</p> <ul style="list-style-type: none"><li>▪ Introduction to Systems Thinking Module: January 14-18</li><li>▪ Understanding Factors Module: March 19-22</li><li>▪ Understanding Actors and Networks Module: May 13-17</li></ul> <p>Bangkok</p> <ul style="list-style-type: none"><li>▪ Introduction to Systems Thinking Module: January 29-February 1</li><li>▪ Understanding Factors Module: March 4-8</li><li>▪ Understanding Actors and Networks Module: April 8-12</li></ul>
<b>Sponsor:</b>	USAID Local Works (E3 Bureau / Office of Local Sustainability)
<b>Type of Training:</b>	Local Partner Capacity Building
<b>Implementer:</b>	Local Systems Practice Consortium
<b>Training Team:</b>	ANSER: Dr. Sibel McGee and Ms. Frances Veasey AVSI: Ms. Jackie Aldrette LINC: Mr. Rich Fromer, Mr. Carlos Zarco Mera, Ms. Jenna White University of Notre Dame: Dr. Rahul Oka
<b>Implementing Partners:</b>	Bangkok: Panicha Vornpien Mexico: None
<b>Training Participants:</b>	See Appendix III
<b>Number of Participants:</b>	Latin America Cohort: 24 Asia Cohort: 16
<b>Report Date:</b>	28 October 2019

# Executive Summary

The Local Systems Practice (LSP) Consortium conducted a series of systems thinking training workshops for two cohorts based in Latin America and Asia. Training for the Latin America Cohort was conducted in Mexico City, Mexico on the following dates: January 14-17, March 19-22, and May 13-17. Training for the Asia Cohort was conducted in Bangkok, Thailand on the following dates: January 29-February 1, March 4-8, and April 8-12. The training series was funded by USAID/Local Works (E3 Bureau/Local Sustainability Office), which promotes the idea of locally-owned and -led development. The systems thinking workshops aimed to build the capacity of a variety of local advocacy and non-government organizations (NGOs) to understand and operationalize systems approaches in their own advocacy areas. This was an effort to make the members of each cohort more effective agents of change in their geographic areas as they lead and own the development projects and efforts they are involved in. This workshop was grounded in the belief that the use of systems approaches by local advocacy groups and NGOs will result in more effective project design, and monitoring/evaluation efforts, with ultimately better program outcomes.

The workshops included instruction of three different but related modules covering the following concepts:

- Module 1: Introduction to Systems Thinking
- Module 2: Understanding Factors
- Module 3: Understanding Actors and Networks

Aligned with these modules, training delivery by LSP Consortium members covered basic and advanced concepts and principles of systems thinking, as well as theory and practice of some key systems tools and methods. The training included a series of interactive and hands-on exercises that allowed the participants to reflect upon and apply newly gained skills in their advocacy/interest areas.

## Strengths

The team accomplished the majority, if not all, of the learning objectives associated with each training module, using an interactive and customized approach that fostered a dynamic learning environment. The team was also able to incorporate lessons learned from the pilot training to develop more responsive, in-depth training at a larger scale. Several themes emerged in the area of strengths.

- **Learning Through Doing.** All three modules organized their curricula around an experiential design that allowed significant time for practical application of the concepts and methods presented. This allowed participants to understand and internalize the material, and in many cases they were able to apply it to their actual area of interest. Training teams supported experiential learning even when it was more difficult to implement – for example, with some teams staying after-hours to review participants' work products so feedback and guidance would be more responsive the next day.
- **Provision of Tools and Templates.** The training teams all developed worksheets, templates, and practical guides that participants could use to implement the same methods from the workshops back in their local contexts. This allows for replicability of results, orients

practitioners even when they are beginners at their methods, and gives them confidence that they can use and transfer the tools if they follow the outlined steps.

- **Devoting Time to Transfer Knowledge.** By developing a training concept of three one-week sessions with each session focusing on a separate module, the training team allowed enough time for both lecture and practice. Implementing a training with a series of sessions of targeted topic areas also allowed trainees to experience different aspects of systems thinking without being overwhelmed by a single, comprehensive training that packed a large variety of concepts and tools into a short timeframe.
- **Thoughtful Design of Curriculum.** The team leveraged lessons learned from the pilot training as well as their own expertise to thoughtfully develop curricula that could be easily followed and applied, even without prior experience. Examples include taking extra time for foundational concepts (e.g., causality), selecting a variety of examples that could illustrate concepts, and, where possible, and following one example through the week of training so participants could reference a familiar case study while applying new concepts and perspectives.
- **Generating Enthusiasm for Systems Thinking.** Participants left sessions energized and with explicit plans to use the tools they learned in all three modules. The training team introduced action planning into all three modules in order to harness this enthusiasm and help participants organize their thinking into practical next steps.

## Areas for Improvement

### Planning

Planning for the training generally went well; however, two areas were identified where the team could focus on improvement. The first involves a trade-off between providing amenities for participant vs. providing more funding to individuals or inviting more participants. The team attempted to strike a balance, but could give more thought to balancing costs vs. accommodations in the future. The second planning issue identified is a need for greater coordination among design team members. The team used a “divide and conquer” approach to the curriculum updates from the pilot. While this worked well for modules where one consortium partner was primarily responsible for content updates, it worked less well when multiple partners were designing a module together.

### Curriculum

The primary areas for curriculum improvement relate to three different tradeoffs that the training team noted about training content. First, curriculum should be adapted as much as possible to suit cultural and context considerations. This is a particular challenge with a regional training concept, since one example will not likely apply to a range of participants from different countries, cultures, educational backgrounds, and sectors. Still, adaptation for the audience context is always preferred and can be improved.

Second, while devoting sufficient time to the workshops was a strength, the length of the entire training and duration of each session (i.e., week-long workshops) may have posed a barrier to access for some who could not be away from their organizations or families for three one-week sessions.

Third, there appears to be a tradeoff between letting participants work on their own issue areas versus pre-selected topics. Participants appreciated applying the concepts to their own work, which they were knowledgeable about; however, this approach limits instructors' potential insights if they are not familiar with the topic(s) selected. Instructors then must rely on the participants' explanation of the dynamics involved, as they are unable to independently research and confirm the participants' perspectives. The other option of pre-selecting topics for practical exercises would ensure the trainers are knowledgeable about the topics being discussed and can provide responsive feedback, but it limits the post-training utility of the work products for participants, and also may put participants in the position of trying to work on complex issues that they themselves are not familiar with.

## **Execution**

Some execution issues arose around language and delivery in both cohorts. Some participants had difficulty with presentation language during the English versions, as it was not their first language; meanwhile some of the Spanish-speaking participants noted instructor difficulties in explaining advanced concepts in a non-native language, and suggested it would be better to have translators available for practical exercises. Future iterations should include assessment of language abilities and preferences to determine the best approach. Time management was a constant execution challenge; trainers continually balanced progress and learning related to group activities and discussions with the need to keep on schedule so all content could be delivered properly. Future trainings should also consider the best approach to providing training materials (read-aheads, handouts, printed materials) in light of lessons learned during this training. Finally, the training team would have preferred to conduct coaching and follow-up after the training to assist participants in applying the tools and methods shared; however, this was not included in the current funding. Future training events should build a mentoring phase into the execution plan.

# Section I: Training Description

## Background

The Systems Thinking Cohort Training was conducted as part of the Local Systems Practice (LSP) activity, a three-year cooperative grant executed by a consortium of five organizations<sup>1</sup> and funded by USAID/Local Works (E3 Bureau/Local Sustainability Office). Local Works promotes the idea of locally-owned and -led development by enhancing the capacity of local actors, including intermediary support organizations (ISOs) and non-governmental organizations (NGOs) involved in development efforts and programs. Building on this idea, the LSP activity aimed to pilot systems approaches to strengthening local systems and networks, testing the theory that increasingly capable networks of local actors can own and lead development. These approaches enable a deeper understanding of the overall system; the local constituents, relationships; and how development interventions change local systems over time. A key part of this activity was envisioned as development and delivery of a series of systems thinking training workshops to various USAID Mission staff and their local partners. These trainings were intended to enable local actors to operationalize systems thinking approaches and methods to inform program strategies, project design, as well as monitoring and evaluation efforts, to achieve better program outcomes.

As part of this activity, LSP implemented a training series with three 4- or 5-day workshops (covering systems thinking concepts/tools and practical exercises) from January 2019-May 2019 in two locations: Mexico City, Mexico and Bangkok, Thailand. While the workshops in Mexico City targeted an audience of development practitioners from the Latin America region, the workshops in Bangkok were geared towards an audience of development practitioners across Asia. Each workshop covered a module focusing on a separate systems topic. Accordingly, the modules covered concepts, principles, and methods associated with the following three topics:

- *Introduction to Systems Thinking (Module 1),*
- *Understanding Factors (Module 2), and*
- *Understanding Actors and Networks (Module 3).*

This after-action report is concerned with an assessment of that workshop series and review of associated observations and lessons learned.

## Training Preparation

LSP conducted a pilot Systems Thinking Training Workshop in May of 2018 in Rabat, Morocco. Based on lessons learned from that event, LSP developed a training concept that expanded the curriculum to three separate modules, with delivery targeted at the regional (as opposed to country/Mission) level. LSP developed outreach and marketing materials for the workshops that were distributed to regional contacts, as well as an application process to receive requests from individuals and organizations who would like to participate in the training. Once applications were received, the LSP team reviewed and

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<sup>1</sup> The consortium includes LINC, ANSER, AVSI, University of Notre Dame, and University of Missouri.



evaluated the candidates to ensure selection of groups and individuals that were working in a local capacity, had the knowledge and experience to fully absorb the curriculum, and were most likely to put the gained knowledge into practice for best impact at the local level. The team held an internal conference in October of 2018 to develop an outline for the expanded curriculum, catalog existing resources and curricula, assess which areas would need further development, and agree on a division of labor among consortium partners to develop the final training products. The assigned consortium partners then developed the required curricula independently, and circulated products for review and comment when complete. Presentations and workshop materials were developed in English. All presentations for the Asia cohort were conducted in English, using English language workshop materials. Workshop materials were translated into Spanish language for the Latin America cohort, and all presentations for the Latin America cohort were conducted in Spanish.

## **Schedule and Location**

The Asia Cohort training was conducted at the Holiday Inn Bangkok Silom in Bangkok, Thailand. The Latin America Cohort training was conducted at the Hotel Four Points by Sheraton Ciudad de México in Mexico City, Mexico. Dates for training were as follows:

### **Module 1: Introduction to Systems Thinking**

- Mexico City (January 14 – 17)
- Bangkok (January 29 – February 1)

### **Module 2: Understanding Factors**

- Bangkok (March 4 – 8)
- Mexico City (March 19 – 22)

### **Module 3: Understanding Actors and Networks**

- Bangkok (April 8 – 12)
- Mexico City (May 13-17)

The daily schedules for all trainings ran from 9:00 AM to 5:00 PM with a one-hour lunch break and two 15-minute coffee breaks.

## **Audience**

The LSP team envisioned two regional (Asia and Latin America) training audiences consisting of development practitioners at the local level, in line with the Local Works program's vision to promote locally-owned and -led development. To reach practitioners who would meet this vision, the LSP team designed an application process that enabled the team to review the applications of various candidates and select those they believed were best-suited for the training, and who would be well-positioned to apply the systems thinking concepts and methods to their local practices. Applicants were therefore asked to provide the following information in their applications:

### **I. General Information**

- a. Name of Organization
  - b. Type of Organization
  - c. Organization Website
2. Participant Information (for each of the two participants applying from that organization)
  - a. Name
  - b. Age
  - c. Gender
  - d. Position
  - e. Function
  - f. Time with the Organization
  - g. Areas of Expertise
  - h. Nationality
  - i. Email Address
  - j. Modules Participant plans to attend
  - k. Curriculum Vitae (attached)
3. Institutional Information
  - a. Vision/mission of the organization
  - b. Three recent projects or programs that the organization has carried out
  - c. Report/Technical document that represents the organization's project experience and/or analytical capabilities
  - d. Organization's annual budget for 2016
  - e. Organization's annual budget for 2017
  - f. Number of full-time employees
  - g. Number of part-time employees
  - h. Number of volunteers
4. Short Answers
  - a. Briefly explain why you are proposing the individuals listed above to attend the training. (250 words / 1500 characters max)
  - b. Which aspects of your organization's work are you interested in improving by participating in the systems training? Why?
  - c. OPTIONAL: Please use the space below to provide any additional information about your organization or the proposed individuals that you consider relevant to participation in the systems training.
5. Contact Person
  - a. Name and contact information for primary point of contact

The team started with a contact list of nearly 80 development practitioners throughout Asia, Latin America, and the US. Outreach and marketing materials were sent inviting recipients to apply or to share the information with others who may be interested. The team received applications from 85 organizations in Latin America, and 28 organizations in Asia. The best applicants were selected from each region, while managing the budget for maximum participation. A full list of participants is included in Appendix III.

## Participant Feedback Methodology

Feedback was solicited from attendees at the end of each module workshop. A general template (included in Appendix I) was used for consistency and comparability across modules, with slight modifications to reflect the content of each module, as explained below. A combination of questions that required participants to rate various workshop areas/elements along a Likert scale and provide

open-ended answers enabled collection of both quantitative and qualitative feedback. Questions were as follows:

- Please rate the trainers on the following: (Scale of 1-5, where 5=excellent, 4=good, 3=average, 2=fair, and 1=poor)
  - Knowledge of the subject matter
  - Ability to explain and illustrate concepts
  - Ability to answer questions completely
- What, specifically, did the trainers do well? (Open-ended)
- What recommendations do you have for the trainers to consider for future trainings? (Open-ended)
- Please rate the quality of each of the training topics: (Scale of 1-5, where 5=excellent, 4=good, 3=average, 2=fair, and 1=poor)
  - *(Each module's topic list was used to populate this section)*
- Please rate the content and structure of the training: (Scale of 1-5, where 5=excellent, 4=good, 3=average, 2=fair, and 1=poor)
  - The usefulness of the information
  - The structure of the training sessions
  - The pace of the training sessions
  - The usefulness of the training exercises
- Was this training appropriate for your level of experience? (Yes/No)
  - If you selected "No", please explain: (Open-ended)
- What did you most like about the training? (Open-ended)

Data was solicited via an online survey tool after training concluded. Results for each module are presented within the respective section of this report.

# Section 2: Introduction to Systems Thinking Module

## Training Description

### Overview

This 4-day module was designed to accomplish three tasks: 1) to provide an overview of systems thinking, 2) to introduce a system scanning tool, and 3) to preview the other modules and set expectations for the entire training series. At the end of the module, participants were expected to appreciate that systems thinking is more than just a set of tools and methods, but rather a way of thinking. The module was designed to illustrate how systems thinking can be useful in development work across technical areas. Examples, including healthcare and agriculture, were provided throughout the module. In addition, participants were requested to provide examples from their own work. This module also focused on relationship-building among participants in the hopes that they would support one another both during and after the training. As the first module in the 3-part training series, time was dedicated on the last day to preview the next two modules in order to build excitement and improve retention throughout the training. Each day, participants were requested to reflect on what they have learned and provide feedback to trainers along with remaining questions.

### Objectives

The module-specific objectives included:

1. Gain a good understanding of the foundational concepts of Systems Thinking
2. Understand the processes of systems change
3. Conduct an initial systems investigation using a system scan tool
4. Establish the roadmap and expectations for the remainder of the training series, including other systems tools

### Curriculum

The first day of the training began with an **overview** of the 3-part training series, including contents of Modules 2 and 3, and a discussion of the usefulness of systems thinking in development, as it provides an understanding of the context and the respective the complexity, prevents unintended consequences, and facilitates sustainable results. Following the initial icebreaker exercise, the module started with a discussion of systems thinking. Participants watched two videos and participated in an exercise intended to demonstrate key concepts of systems thinking. During the first video, “Systems in Pictures,” participants were asked to pay attention to the images and recognize the way in which our lives are based in systems. After watching the video, participants discussed systems of varying size and complexity, and the approach of systems thinking to understand complexity by building up (*synthesis*) rather than breaking apart (*analysis*). Next, the participants conducted an exercise entitled *Triangles* to demonstrate the role of actors, their behaviors, and the way in which those behaviors serve as

important aspects of a system. The second video, “How Wolves Change Rivers” showed how the reintroduction of wolves into the Yellowstone National Park ultimately changed the flow of rivers. Using this video as a prompt, the participants reflected on various systems topics such as parts of a system, interactions, complexity, unintended consequences, emergence, and feedback loops.

The remaining part of the first day consisted of a lecture on key concepts of systems thinking and a series of interactive exercises. The lecture emphasized the key principle of understanding the context before engaging with a system, and introduced several important concepts such as interdependence, perspectives, boundaries, and context. Two exercises followed this lecture: *Identifying Systems* and *How to Make Toast*. While the first exercise focused on re-grouping of a set of information to identify systems as discovered by the participants, the second exercise aimed to enhance understanding of different perspectives in a system and the way in which combining perspectives enables a more complete understanding of the complex phenomena. The first day ended with an overview of the USAID 5Rs framework<sup>2</sup> and participatory discussion on the relevance of systems thinking to participants’ work.

The second day of the training consisted primarily of exercises to **understand systems change**. At the beginning of the session, participants were asked to take a baseline survey on systems knowledge and appreciation of the systems approach. Combined with an endline survey that is scheduled to take place in November 2019, data collected will allow for an assessment of understanding and uptake of systems thinking concepts, methods, and tools amongst participants.

Following the survey, the facilitators discussed habits of systems thinkers, along with the different ways that systems change can happen, including types (adaptive, transformative, project-based), levels (symptoms, patterns, structure, mental models), and dimensions (internal, external, individual, collective). This session also introduced five principles of systems change: (1) Seek system health, rather than end-to-end solutions; (2) Recognize repeating patterns of behavior, not only symptoms; (3) Act on points of high leverage in the system; (4) Facilitate change rather than imposing or forcing it; and (5) Plan to adapt and stay flexible as the system evolves. In a five-part exercise that composed the majority of the day, the participants worked in groups of four to five members, focusing on a sector/theme.

As a group, they reflected on their sector/theme in the context of each systems change principle and on why the principle was important from a systems perspective. First, participants identified factors that affect the issue in hand. Second, they considered how to make a related system (e.g., human rights system) healthy as a whole rather than focusing on discrete problems within, discussing dynamics and practices to facilitate system health. Third, the group focused on the importance of understanding systemic patterns to achieve lasting systems change. The trainers introduced the iceberg model and asked participants to identify examples corresponding to the layers of the iceberg (i.e., symptoms/events, patterns, structures, and mental model) in the context of their sector/theme. Fourth, the facilitators discussed high- and low-leverage interventions in a system and asked groups to identify interventions in the context of their sector/theme corresponding to each iceberg layer. Fifth, the facilitators led a discussion about using an approach that facilitates change through incentives rather than directly implementing it. Then, the groups were asked to reflect on interventions that seek to facilitate change

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<sup>2</sup> The 5Rs Framework uses five key dimensions to help development practitioners understand systems: Results, Roles, Relationships, Rules and Resources. <https://usaidearninglab.org/library/5rs-framework-program-cycle>

rather than imposing it in their respective sector/field. During the final part of the exercise, facilitators emphasized the requirement of adaptation in working with complex systems, along with a discussion of a cycle of listening to the system-understanding the parts and the whole, as well as the patterns, acting to facilitate change, learning, and then adapting. The groups were asked to consider barriers to “adapting” to the dynamics of the system in their sector/theme.

The third day of the training covered a key activity in systems approach: **system scanning**. Trainers discussed the importance of understanding the context before engaging with a complex system, as well as benefits of conducting a system scan. They introduced a 6-step methodology for conducting a System Scan and participants practiced the first four steps of this methodology using examples from their own work. Participants also discussed the necessity of collecting additional information during system scanning through common data collection means such as stakeholder interviews, literature review, performance metrics, and review of policy, legal, or other relevant documents; and that the system scanning should be an iterative task to capture the ways in which complex systems change.

The final day of the training continued the System Scan exercise, allowing participants to practice steps 5 and 6 of the systems scanning methodology. During the final step of the methodology (synthesis), participants were asked to create a **rich picture** of the issue they were working on.<sup>3</sup> Participants shared their rich pictures with each other prior to a final report-out from the groups. Next, groups were asked to work on an **Action Plan** that encouraged thinking about how they will incorporate systems thinking at their organization and which stakeholders they will involve in their system scanning activities.

During the remaining part of the last training day, the trainers provided an overview of other commonly used systems tools, grouping them into structural thinking tools (e.g., Causal Loop Diagrams and Social Network Analysis), dynamic thinking tools (system scanning and simulations), and understanding context tools (e.g., CLD, SNA and Ethnography). The remaining time was used to share final thoughts and reflections as well as address remaining questions.

## Training Assessment

### Participant Feedback

For the *Introduction to Systems Thinking* Module, the training team received 38 executed surveys with 15 of them filled in English (by the Asia training participants) and 23 filled in Spanish (by the Latin America training participants). The participants voted 4.65 out of 5 on average for all feedback measures of satisfaction in Bangkok and 4.33 out of 5 in Mexico. The following section presents the specific feedback by the Asian and Latin American cohorts based on the aggregated survey data collected.

### Trainer Knowledge and Quality

In Bangkok, 100% of the respondents thought the trainers’ subject matter knowledge was “excellent” or “good.” 93% of respondents agreed that the ability of trainers to explain and illustrate concepts was “excellent” or “good”, with 7% indicating it was “average.” Trainers’ ability to answer questions

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<sup>3</sup> Rich pictures use symbols, keywords, cartoons, titles, and connections to describe the issue.

completely was rated as “excellent” or “good” by 93% of the participants, and “average” by 7% of the participants.

In Mexico, 96% of participants rated the trainers’ subject matter knowledge as “excellent” or “good” with 6% saying it was “average.” 87% of the respondents agreed that the ability of trainers to explain and illustrate concepts was “excellent” or “good”, and 13% thought it was “average.” Trainers’ ability to answer questions completely was rated as “excellent” or “good” by 74% of the participants, and “average” by 26%.

Responses by the participants to the open-ended question of “*what specifically did the trainers do well?*” can be grouped into three categories. These categories and sample comments include:

#### Explaining Concepts Clearly

- They were very patient in answering the questions of the participants as they sought for more clarity.
- The trainers have explained the material until the participants fully understood the content of each training session and made everybody feel comfortable.
- They were really great in explaining concepts and giving examples.
- They did well in understanding the questions and different situations presented by the participants. They also provided varying perspectives in analyzing the problems which was enlightening.
- Clear presentation of the training material and use of examples

#### Using Concrete Examples

- The trainers were very much helpful. Their way of presenting topics with example was excellent.
- Explain concepts and associate them with real and practical cases
- Exemplify the concepts in a didactic way
- Explain with examples and participate in the doubts of the attendees
- Explain the concepts with examples
- Theoretical processes, use of examples
- Explain with examples, be clear and patient
- Explain the concepts in detail and clearly

#### Using Exercises and Providing Real-Time Coaching

- Facilitation of simulated learnings exercises and coaching during group works.
- Coaching by break-out group
- Coaching us during the exercises
- During group exercises they visited each groups, discussed about the problems and assisted to find a direction when it was required.

## Training Content and Quality

The respondents rated the quality of the *Introduction to Systems Thinking* module as follows in Bangkok:

- Understanding Systems Thinking: “excellent” or “good” (93%), “average” (7%)
- Creating Change in Complex Systems: “excellent” or “good” (100%)
- Systems Scanning: “excellent” or “good” (100%)
- Synthesis and Systems Tools and Approaches: “excellent” or “good” (100%)

The respondents rated the quality of the *Introduction to Systems Thinking* module as follows in Mexico:

- Understanding Systems Thinking: “excellent” or “good” (83%), “average” (17%)
- Creating Change in Complex Systems: “excellent” or “good” (87%), “average” (13%)
- Systems Scanning: “excellent” or “good” (87%), “average” (4%), “fair” (9%)
- Synthesis and Systems Tools and Approaches: “excellent” or “good” (74%), “average” (22%), “fair” (4%)

In Bangkok, 100% of the respondents agreed that the usefulness of the information provided by the training, the structure of the training, the pace of the training, and the training exercises was “excellent” or “good.” Similarly, 100% of the respondents in Bangkok agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience.

In Mexico, 100% of the participants agreed that the information provided by the training was “excellent” or “good.” 87% of the participants thought the structure of the training was “excellent” or “good,” while 13% of the participants rated it as “average.” Respondents in Mexico had mixed feelings about the pace of the training with 78% feeling it was “excellent” or “good” with 13% thinking it was “average” and 9% thinking it was “fair.” 87% of participants rated the training exercises as “excellent” or “good” with 13% rating them as “average” or “fair.” Finally, 96% of respondents agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience, with 4% (1 participant) thinking it was it was not aligned with their level.

In response to the open-ended question of “*what did you most like about the training,*” the respondents provided a range of answers that can be organized into three categories. These categories along with sample comments are as follows:

### *Systems Thinking and its Application to Development*

- The training changed the way we view our own development challenges. A truly refreshing and inspiring paradigm shift of looking at the problems and issues surrounding not just our organizations but the whole system itself.
- Learning about a whole new way of thinking which can be very useful in the different aspects of program implementation.
- I liked the content of the training as it is very important for our organization’s activity in order to make changes we are working on together with rural communities more sustainable.
- Relevance of the training theme to the activity of our organization



- The last two days allowed me to understand failures and areas of opportunity in the performance of my work as well as that of my institution.
- The possibility of having at hand a topic of great utility for the development of organizational and territorial processes, and that in some occasions very practical and dynamic exercises were used that can facilitate a future transfer of the same theme to other groups with whom we work
- Discover and deepen systemic thinking and also discover that my organization thinks systemically, although without [a] method
- That it shows a different way of looking at reality and focusing [on] the work we do
- That it broadened my level of consciousness to effectively address complex issues in society

#### *Exercises and Group Dynamics*

- The opportunity for hands-on practice in applying the tools. It gave a chance to see how other participants understood the concept and for us to compare our approaches. This helped provide additional clarity.
- The active participation of co-participants
- I liked the exercises as this helped me understand the usefulness of the training to my context.
- Group discussion of each selected theme and presentation
- In addition to the topic, I really liked the dynamics of the group, the level of participation and the contents.
- Be able to do exercises with people of different visions
- The practical part and the dynamics of group work

#### *Trainers' Knowledge and Facilitation*

- Trainers' effort to coach/teach us during the exercises
- Friendly environment, amazing behavior of the trainers, their patience, really made the training session easy for me
- The capacity of the trainers
- The interest of the instructors to carry out the sessions in a structured but flexible way and in an empathetic way

### **Participant Input into Future Trainings**

In response to an open-ended question on *recommendations for future trainings*, participants provided a range of inputs that can be organized into the following categories:

#### *Curriculum*

- Provide additional real-world examples to make the concepts more concrete. The examples given are sometimes hypothetical only or seem limited in context that it still doesn't help provide a full picture.
- Be given more time to process learnings, more examples in the context of current projects participants are working on

- Provide more relatable/local examples; ask probing questions to facilitate the thinking process and not immediately suggest possible answers
- Provide more concrete examples of the concepts. It helps to have a better grasp of ideas.
- More simulated learning exercises
- Kindly consider providing more than two examples (e.g. malaria and cartel violence) to illustrate concepts.
- More and more examples! The issue is complex when it is first addressed, so it would be a good idea to do several exercises and have more examples.
- Bring practical cases that land the concepts more and make the content clearer.
- Put case studies by table of topics related to the general objectives of the attending organizations
- Work and learn about case studies or success stories in the implementation of the systemic approach, on the other hand share information in the cloud or provide bibliography support
- Continue using clear examples
- Define situations or case studies that generate collective dialogues around a particular topic

#### *Scheduling*

- If they can find suitable games to further make the sessions livelier
- Add more time for workshop or application of theories
- Activities... have intermediary dynamic breaks to energize the team
- It is necessary to...foster feedback between groups and thus effectively bring other perspectives [into] the theme or approaches that each of the groups is developing, this would allow for greater analysis and understanding... It would be good to [set aside time] to learn about the work of each of the [participating] organizations.

#### *Facilitation*

- Shar[e] the sources of documents/ references for pre-reading
- Overall, the training is very good though the trainers may consider to have an inexpensive venue next time.
- Get feedback [from] participants to validate the knowledge learned
- Dedicate more time to feedback during exercises
- On some topics, enable more conversation and give feedback
- Respond more promptly to concerns. More examples of the applicability of the approach
- Management of time

The participants did not provide answers to an open-ended question on additional comments.

### **Team's Assessment of the Training**

#### **Strengths**

Facilitated Informal Learning Ahead of Concept Learning: In both iterations of the Intro Module, participants appreciated the initial interactive learning that focused on the use of videos and games in

order to illustrate key concepts. As participants reflected on what they were experiencing, the trainers put names to concepts and gave more formal definitions. Participants generally appreciated this energizing and learning-by-doing approach.

Supported Learning with Practical Examples and Activities: Participants also seemed to particularly enjoy the concrete examples and case studies, although they asked for more. However, given the time-intensive nature of developing examples based on real world problems, this is not always feasible. Also, there is a danger in using local examples as participants are more likely to have strong opinions about a local issue, which may distract from using the example for learning purposes.

Provided Practical Worksheets to Guide Tool Applications: The scanning tool, including a worksheet and the 5Rs poster, also appeared to be one of the strengths of the training in both locations. The materials were well-integrated and provided a useful template for participants to leverage back at their home institutions. Numerous participants expressed intentions to use the tools in the near future, but also requested more printed materials be made available. The trainers provided electronic copies of these materials to participants after the training.

Allowed Sufficient Time for a Complete Learning Experience: The training allowed sufficient time for participants to not only receive content in lecture form, but also to practice what they had learned through guided exercises. Many participants left the training with concrete plans for how to conduct a system scan. This indicates that the participants felt they not only had the knowledge about this systems tool, but also had the practical competency to use it and share their learning with their colleagues.

## **Areas for Improvement**

### *Planning*

Logistics and Budgeting: In both Bangkok and Mexico City, participants requested that the venue be moved to somewhere less expensive in order to ensure that the training would be fully funded for all three modules. In the beginning, transportation and lodging were only guaranteed for the first module. Thereafter, it would be subject to remaining funds. The participants in Bangkok indicated that the breaks were too long and there was too much food. However, participants in Mexico were not pleased with lack of a traditional hot lunch. All of this feedback is informative for adjustments in venue and food and beverage planning for future iterations of similar workshops.

### *Curriculum*

Cultural and Context Considerations: Future curriculum designed to be delivered across geographies needs to more effectively account for regional and local contexts. Since developing context-specific examples that consider each participating organization among a large number of organizations coming from different countries is not feasible, it is worth considering developing examples that are more cross-cutting geographically, or providing more variety of examples rather than focusing on two specific case studies for the majority of the module.

## *Execution*

Language and Delivery: Some difficulties were encountered in the areas of delivery language, time management, and timing and style of training materials. At a high level, the training content was delivered successfully in English in Bangkok and in Spanish (by one native and one non-native speaker) in Mexico. Yet, the training team noted some participants having difficulty with presentation language during *Introduction to Systems Thinking* Module. It may be beneficial to conduct a more realistic assessment of the participants' language abilities and preferences before future training efforts are executed to determine the optimal delivery language or language capabilities needed in training trainers.

Time Management: Considering time management, the trainers feel that they used their time well, despite the challenge of keeping groups adhering to a tight schedule through breaks and group work. The biggest challenge was balancing the participants' desire to share their experiences and learn from each other with the need to keep on schedule and limit the amount of time taken up by any single organization. To achieve this, trainers had only one or two groups report out after group exercises.

Availability of Training Materials: The Module relied on dissemination of a number of printed handouts during the sessions. The training team also received requests for more materials, to provide them electronically (which we did after each module), and to provide them at the beginning or before the module. This feedback will be taken into consideration during future iterations of this or similar trainings.

# Section 3: Understanding Factors Module

## Training Description

### Overview

The *Understanding Factors* Module focused on systems thinking concepts and methodologies pertaining to factors in a system.<sup>4</sup> A broad range of issues fall under the rubric of factors influencing system level behavior and outcomes, including motivations, perceptions, processes, and capabilities. This module introduced participants to a very specific systems tool, Causal Loop Diagrams (CLDs), which are used to visualize factors and their causal relationships. CLDs portray dependencies, interactions, and feedback structures between key factors (variables) in a system and how they come together through causal pathways, shaping specific system-level (desired or undesired) outcomes.

### Objectives

The objectives for this module were as follows:

- Deepen understanding of systems thinking concepts and methods
- Use systems thinking lens to identify factors and relationships that contribute to system outcomes
- Understand benefits and uses of Causal Loop Diagrams
- Gain familiarity with creating Causal Loop Diagrams to model system operation and behavior
- Develop understanding of generic Causal Loop Diagram templates (system archetypes) for diagnosing classic systems problems
- Understand and apply leverage point analysis to inform design of effective system interventions

### Curriculum

The curriculum covered a variety of topics oriented around understanding how factors contribute to outcomes, ultimately causing the effects we see. The curriculum was progressive, with each day building upon the knowledge gained previously. The implementation of the curriculum was slightly different between Bangkok and Mexico City trainings as will be explained below.

The first day covered an **Introduction to Factors and Causality**. This contained a review and extension of the concepts covered in the Introductory Module (Module I), with a focus on those most central to understanding Factors. After the review, the curriculum covered concepts related to *factors* and *causality*. This material was extended due to findings from the pilot training that participants struggled with concepts of causality (e.g. direct vs. indirect, causation vs. correlation, feedback). This section was broken into three parts: cause, effect, and feedback. As part of this, participants were given examples illustrating each concept, as well as methods for understanding these concepts as applied to their systems. For causes, participants were introduced to STEEP factors (social, technological,

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<sup>4</sup> Factors can be defined as any variables that contribute to a result or outcome.

economic, environmental, and political). At the end of the causation section, participants were asked to apply the thinking tools and methods to their own issue areas, and present the results after some discussion. Similarly, for effects and feedback, participants were presented with methods to help them process the information, which they subsequently used in practical exercises pertaining to their own issue areas. This process was important for laying the groundwork for the next day's activities. Each day participants were requested to reflect on what they have learned and provide feedback to trainers along with remaining questions.

The second and third days covered **Causal Loop Diagram (CLD) Theory and Practice**. CLDs are a powerful systems thinking tool for visualizing the complex interplay of various factors across time and space to contribute to system outcomes. Participants were introduced to CLDs and given an example up front of how CLDs work. They were then given a step-by-step guide to a methodology for developing their own CLDs in their issue areas. After each step was introduced with a tutorial, participants worked through the step in their own groups, which were divided into interest groups looking at single issue areas. Participants developed complex CLDs over this period, and presented their final CLDs to the large group on the second of two days devoted to this topic.

During the fourth day, facilitators introduced two advanced applications that built on the CLD knowledge cultivated during the previous days. The first of these, **System Archetypes**, covered a half-day of instruction and practice. System Archetypes are generic CLD templates used for diagnosing classic systems problems and universal behaviors that occur repeatedly in diverse settings. They are transferrable to different systems and scenarios, and show the underlying structure for behavior patterns and outcomes related to each problem. The training team presented four of the most common system archetypes, giving illustrative examples, as well as recommendations for addressing or avoiding the problems associated with those archetypes. The participants then used this knowledge in a discussion-based practicum, and also selected one archetype that was relevant to their issue area, using the archetype to develop a CLD of the relevant problem.

During the afternoon of the fourth day, the training team introduced **Analysis of Leverage Points**, or places to intervene in a system, the second advanced CLD applications. The training team presented twelve leverage points ranked according to their relative impact levels, based on Donella Meadows' (1997) canonical essay as a guideline. The first six of these leverage points were reviewed and discussed during the remainder of the fourth day.

The fifth day of the training started with review and discussion of the final six leverage points. All 12 leverage points were illustrated using the sample CLD presented on Day Two of the training. This CLD helped participants talk through how to find leverage points and how system change can be initiated through targeted interventions in a system. Participants were then invited to find corresponding leverage points in their own CLDs that they had developed on Days 2-3. After completion of the Leverage Points topic, the remaining time of the final day was devoted to **Next Steps**. This included wrap-up activities, solidification of concepts, and action planning. A final CLD was presented to demonstrate how the tool can be used to understand factors, analyze problematic systems, and make interventions or recommendations to address areas of concern. Participants were then encouraged to create Action Plans for how they would use what they learned in their respective development and advocacy areas.

The training implementation in Mexico City deviated from this curriculum by skipping the leverage point analysis topic. The curriculum moved straight from System Archetypes to the Next Steps/Action Planning. The training team used the small amount of extra time remaining to supplement the existing practical, hands-on training components (e.g., CLD development) and to incorporate a series of Kahoot quizzes into the curriculum. This deviation was needed due to the lack of a Spanish speaking trainer who is familiar with this advanced topic.

## **Training Assessment**

### **Participant Feedback**

For the *Understanding Factors* Module, the training team received 33 executed surveys with 16 of them filled in English (by the Asia training participants) and 17 filled in Spanish (by the Latin America training participants). The participants voted 4.76 out of 5 on average for all feedback measures of satisfaction in Bangkok and 4.43 out of 5 in Mexico. The following section presents the Asian and Latin American cohorts' feedback based on the aggregated survey data collected.

### **Trainer Knowledge and Quality**

In Bangkok, 94% of the respondents rated the trainers' subject matter knowledge, ability to explain and illustrate concepts and ability to answer questions completely as "excellent" or "good" with 6% saying it was "average."

In Mexico, 94% of the respondents rated the trainers' subject matter knowledge "excellent" or "good" with 6% saying it was "average." 88% of the respondents rated the trainers' ability to explain and illustrate concepts and ability to answer questions completely as "excellent" or "good" with 12% saying it was "average" or "fair."

In response to an open-ended question asking "what specifically did the trainers do well," the majority of the respondents from both cohorts highlighted the trainers' use of concrete, real-life examples; real-time coaching during small group exercises; and explaining concepts and materials clearly. Some of the responses provided included the following:

#### *Use of Concrete, Real-life Examples*

- By using current events as an illustration of [examples], which I can relay and understand the concept, though not thoroughly grasps as lots of information need to be processed, but such way of illustrating [with examples] by the trainers is indeed helpful.
- Explaining the concepts through concrete and real-life problem samples. This made the participants have a better grasp of the theory.
- Providing clear examples of how the theories and frameworks are applied to a real-world context
- Illustrate the concepts to achieve greater understanding [by] the participants
- Supplementary materials and examples were provided [in response to] different questions of participants.
- [Offered] many examples so that [our] understanding was better

- Explain and give examples
- Explain the concepts and illustrate concrete and relevant examples

#### *Providing Real-Time Coaching*

- Mentoring the participants as we do our CLD
- Illustrating and coaching in the development of Causal Loop Diagrams
- Accompany [us] during the exercises, be close to [explain] each variable
- Give feedback in each exercise.
- Getting training participants to develop and retain new skills such as creating causal loops diagrams through performing practical group assignments and providing consultations on it
- Answer the questions, they are very attentive accompanying the exercises. They are as clear as possible and are attentive to the group.

#### *Explaining Concept and Materials*

- Explain how to create [a] CLD step-by-step
- Explanation of the concept[s] and example[s]
- Explained the use, importance, and elements of causal loop diagram[s]. Their manner of sharing their knowledge and subsequently building our skills w[as] efficient and effective.
- Facilitated the classes, mentioning the practical problems/ realistic examples. Trainers were knowledgeable, friendly, and flexible and allowed discussions to reflect the needs of the group.
- The trainers thoroughly explained the material [while] letting the participants practice skills via working in small groups; showed real examples; helped each group to go in the right direction when working in small groups.
- They had a lot of patience to explain things to you (although sometimes there are time limitations).
- They have extensive knowledge of the subject.
- Explain with patience and expertise
- Present the topic step by step, so that the concepts could be assimilated properly.

### **Training Content and Quality**

In Bangkok, the respondents rated the quality of the training topics as follows:

- Topic 1: Introduction to Factors: “excellent” or “good” (100%)
- Topic 2: Introduction to CLDs: “excellent” or “good” (100%)
- Topic 3: System Archetypes: “excellent” or “good” (94%), and “average” (6%)
- Topic 4: Leverage Points: “excellent” or “good” (94%), “average” (6%).

In Mexico, the respondent rated the quality of the training topics as follows:

- Topic 1: Introduction to Factors: “excellent” or “good” (94%), “average” (6%)
- Topic 2: Introduction to CLDs: “excellent” or “good” (94%), “average” (6%)
- Topic 3: System Archetypes: “excellent” or “good” (82%), and “average” (18%)
- Topic 4: Leverage Points was not implemented in Mexico.



In Bangkok, 100% of the respondents agreed that the usefulness and the structure of the training was “excellent” or “good.” Similarly, the majority of the respondents (94%) rated pace of the training as “excellent” or “good” with 6% thinking it was “fair.” 100% of the respondents believed that the training exercises were helpful. Finally, all respondents agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience.

In Mexico, 94% of the respondents agreed that the usefulness of the information provided by the training was “excellent” or “good” with 6% indicating it was “average.” 82% of the respondents indicated that the structure of the training was “excellent” or “good,” with 18% indicating it was “average” or “fair.” The respondents in Mexico had diverse opinions of the pace of the training, with 59% thinking it was “excellent” or “good” and 41% indicating it was “average” or “fair.” The usefulness of the training exercises was rated as “excellent” or “good” by 94% of the respondents and “average” by 6% of the respondents. Finally, 100% of the respondents in both locations agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience.

Assessing different answers provided by the participants both in Bangkok and Mexico to the open-ended question of “what did you most like about the training” a number of themes emerged. These themes and sample comments include:

#### *Applicability of the Training/Tool*

- As a development worker, the training is an eye opener for me. It help[ed] me understand concepts, strategies and approaches in addressing issues and concerns related to community development. It made me realized that the usual approach we have is indeed just addressing a small portion of the bigger problem. Hence the problem keeps on coming back or as recurring issues. With the training, it helps me understand where to have our intervention or leverage points. The training indeed, is very helpful.
- The usefulness of the tool, since it is applicable in different contexts to analyze systems and propose decisions and actions.
- It was very informative and will be useful in current works.
- The possibility of implementing the [CLD] methodology

#### *Examples and Group Exercises*

- The use of complex real-life examples
- CLDs and the providing practical examples
- The way the training material was delivered to participants and how the newly acquired skills were developed in practice
- Going from theory to practice
- Immediate hands-on exercises following each discussion helped a lot in understanding the concept.
- The participatory methodology, the spirit of facilitation and the encounter of experiences
- Practice session was really helpful and also hearing from delegates from different countries was really helpful.
- The actual creation of CLD through steps with coaching
- The exercises in teams

- The dynamics and integration of the group
- The exercise of causal [loop] diagrams. Showing in a practical way the application of the exposed concepts...Group exercises among different organizations. The dynamics of the [out-briefs] to know the work done by the other groups
- That there were many moments of exercises
- Perform the exercise of the causal [loop diagrams] (although I know I have to practice more)
- Perform the exercises according to the [development] problems we are witnessing
- Being able to work the [CLD] from my practical experience and practical group assessment exercises

#### *Trainer Knowledge and Facilitation*

- The trainers! They are practitioners and experts on CLD and systems thinking, and they were generous in sharing their knowledge and experience. I particularly liked the way they guided/mentored us throughout the development process of CLD.
- I really understood the concept. The way the modules were segmented and presented made it easy to grasp.
- The facilitators were able to make us learn the complex concepts.
- The actuality of the subject of the training, realistic examples, good structure and approaches used by trainers, and the overall organization of the training
- The support from trainers [during] exercises

#### **Participant Input into Future Trainings**

In response to an open-ended question on recommendations for future trainings, participants provided a range of inputs that can be organized into the following categories:

##### *Scheduling*

- Include more nontechnical activities (e.g., icebreakers)
- Have more breaks

##### *Curriculum*

- Include in the curriculum facilitation skills needed to guide the group CLD building process
- Include more exercises
- Provide more examples

##### *Knowledge of the Language and Culture (Mexico City Only)*

- Ensure facilitators have the mastery of the instruction language
- Have translators available for each team during exercises
- Have greater understanding of the cultural contexts and be sensitive to different interpretations and audiences

##### *Facilitation*

- Ensure facilitators do not contradict one another as they coach during exercises

- Clarify time allotted for each exercise
- Share module handouts prior to training

Finally, the last question on the survey form asked for additional comments. Some of the comments provided include the following:

- The scenarios or examples used during the lecture, both in CLD and system archetypes, were relevant to us. The trainers were all accommodating and they facilitated the module very well. Kudos to a job well done, both for the trainers and participants!
- Hope to learn more of the tools in systems thinking
- It was a fun and meaningful learning experience! Thank you!
- Thank you to our facilitators who were indeed experts in the CLD tool of Systems Thinking.
- Overall the training for the Module 2 was effective and productive. Maybe more time in the recap. Recaps are useful for the participants to recall and summarize learnings from the previous topic. It preps the mind before jumping to the next. Thank you LINC and ANSER.
- The other important moment is that owing to the training, the participants from different countries have a great opportunity to know each other personally.

## **Team's Assessment of the Training**

### **Strengths**

Leveraged Lessons Learned from the Pilot Training. The LSP team implemented a week-long pilot training combining all three modules in Morocco during May 2018. Reflecting on the pilot training experience, the team had developed an after action report documenting in detail strengths and weaknesses of the training, feedback from participants and general observations of the trainers. As the LSP consortium moved towards a cohort-based, regional training model where each week-long workshop would focus on a single Module, the curriculum required work to expand content and incorporate additional examples and exercises. During this curriculum enhancement process, the training team leveraged lessons learned from the pilot training. One of those lessons learned was related to the difficulties that the training participants experienced in operationalizing causal loop diagrams. Specifically in the initial step where relationships are identified and visualized, it was difficult for participants to differentiate between direct and indirect relationships as well as the direction of the causality. This resulted in inflation of the number of relationships to be considered and incorporated into CLDs. Based on this learning, the training team incorporated additional instruction material explaining types of relationships, direction of causality, and difference between causality and correlation. Subsequent to this instruction, the curriculum included small exercises allowing participants to internalize these concepts and sharpen their skills in differentiating between primary and secondary relationships. As a result of this adjustment, portions of the Factors Module that deal with initial relationship identification tasks were implemented with no problems. Participants moved from this step to the next step in the CLD methodology very easily with no sign of difficulty.

Followed the Same Example throughout the Training. The training team used a case study on Mexican Cartels and its systemic enablers as the overarching example in the workshop. The training opened up with this example, presenting the associated CLD and a portion of the case study. On subsequent days,

the CLD was carried through the entire workshop as a common thread, allowing participants to see how in a real case a CLD was created, and helping to tell a story about a complex problem that was analyzed to extract critical insights and clues about root causes and potential intervention strategies. Having a single overarching example that progressively tied all training content together allowed participants to visit a familiar case repeatedly to substantiate technical learning without getting distracted by details of a new case.

Provided Multiple Examples and Exercises. One key strength of the training was its ability to provide a great number of illustrative examples and practical exercises. While the examples helped participants to see how abstract concepts were applicable in real life, exercises allowed participants to have plenty of time for hands-on experience of applying and situating steps and activities in the context of practical, real life problems. This aspect of the training was repeatedly noted by participants in their feedback forms and survey responses.

Concluded the Training with a Culminating Example. At the end of the training, the training team provided an advanced example of use of CLDs to understand root causes of program failure in the development domain. This example focused on the failure of the USAID Stability Programming in Afghanistan and mapped out critical causal dynamics and feedback structures that highlight reasons for program failure. All participants enjoyed this example and were excited to see the way in which a CLD can support their development programming activities and outcomes. The example served as a nice prompt to close the training, as it culminated the learning process by illustrating and bringing all key content taught throughout the week-long workshop. The power and potential of CLDs to improve the development program cycle became very clear through this example, improving motivation and enthusiasm among participants to adapt CLDs in their program planning.

Training Team After-Hours Review of Work Products. Given that CLDs are often used to make sense of dynamics and causal pathways associated with very complex problems, it can be difficult to see patterns and feedback structures in a CLD for outsiders with no prior knowledge of the problem that is being analyzed. During the factors module, participants were requested to work in groups focusing on specific development problems of their choosing. As they practiced going through steps of developing a CLD during the course of multiple days, complex maps of feedback structures and dynamics associated with distinct topics began emerging. Some of these topics included extremely complex issue-areas such as citizen involvement in local governance processes, ocean pollution through plastic use, development of a system to track and manage tuberculosis patients, and a disaster management system. The training team did not have expertise in these areas but was committed to provide rigorous feedback on developing CLDs. To ensure effective feedback and coaching, the training team reviewed each CLD after hours, gaining a deep understanding of the problem being visualized as well as noting errors and gaps in logic to guide follow-on efforts the next day. Without such detailed after-hours review, it would have been difficult for the training team to provide meaningful and targeted feedback to participants and keep everyone on track while developing advanced CLDs of extremely complex problems. Participants articulated their appreciation of the rigorous feedback they received for their work areas and recorded this as a strength of the training in their survey responses.

## **Areas for Improvement**

### *Curriculum*

Selection of Exercise Topics. In an effort to facilitate exercises that focus on cases directly relevant to participants' work areas, the training team allowed participants to name problems of interest and form groups around those problems. This resulted in a series of lively exercises, keeping participants engaged and motivated over multiple days. However, this practice also forced trainers to coach participants in the context of extremely specialized and technical cases that they were not familiar with. For example, one of the groups worked on the problem of ocean pollution as a result of use of plastic. This is an extremely complex problem that require significant level of technical knowledge and expertise. Through extensive discussions with the group, the trainers were able to uncover critical dynamics characterizing the ocean pollution problem, including the lack of a direct feedback loop to the broader population, reducing the immediacy of negative effects of such pollution as well as the incentives for collective action. However, cases that were not familiar to the training team or required extensive knowledge and technical expertise posed additional challenges to trainers. In these cases, participants' understanding of the CLD steps and logic was conditional upon the trainers' ability to correctly understand and help characterize problem-specific dynamics. Therefore, these cases proved more time-consuming to address and resolve. Trainers may consider pre-selecting cases to be worked on during exercises, ensuring selected problems not only are of interest to participants, but also of sufficient familiarity to the facilitators. However, the team acknowledges a trade-off as the participants may be less familiar with pre-selected topics.

### *Execution*

Managing Participants' Perceptions of Conflicting Guidance. The training team observed that some participants noted disagreements or diverging directions given by facilitators as confusing during the CLD exercises. However, this is a normal part of the CLD development process. CLDs are tools that are used to capture and convey complex systems and associated problems. The relationships between variables indicate causal links and interactions. However, these links or interactions are not always easy to identify and formulate. During the course of the CLD development process, those who are involved try to understand these relationships and capture them. Depending on prior experiences, knowledge and observations, there can be different interpretations of the relationships. Similarly, the nature and direction of relationships may vary depending on the context and which other variables and issues are involved. Incorporation of every new variable and relationship evolves the CLD and potentially expands the boundary of the model by implicating other issues and dynamics. During the evolution of CLDs, participants' discussions of the phenomenon in hand and exchange of ideas refine understanding of the phenomenon, potentially taking the CLD and the underlying story in different directions. These new directions often require adjustment of the CLD, updating (adding, eliminating or expanding) some relationships, and creating new feedback structures. Therefore, it is expected that trainers who approach the working groups at different stages of the CLD development process are reviewing essentially different CLDs and providing directions based on the state of the CLD and understanding of the phenomenon at that particular time. The training team reiterated that the iterative updating and refining CLDs is a normal part of the CLD development process and completely expected. To manage training participants' expectations the team will acknowledge upfront during future training events that as a CLD develops, participants' understanding and interpretation of dynamics will change, often

requiring adjustment of the established parts of the CLD. Rather than a problem of inconsistency, this is an expected part of the process.

Provision of Read-Ahead Providing Materials in Advance: Some participants commented that they would have preferred to have read-ahead materials prior to the training week. Trainers had considered sending reference materials in advance; however, many of the reference materials on the Module's topic areas are very dense, academic material. The Training Team did not want to risk overwhelming participants with inscrutable documents prior to presenting the content in a more accessible manner. In future iterations, the training team may consider developing read-ahead materials that are more accessible to readers than the currently available literature.

# Section 4: Understanding Actors and Networks Module

## Training Description

### Overview

This 5-day module was designed to complement the general framework to systems thinking already presented in the Introductory Module, and the in-depth look at factors that make up a system and are essential for understanding the dynamics of change within a system. The Actors Module took participants a step further to appreciate the role of actors—people, groups and institutions—as they interact, influence each other, and react to changes in a system. Aware of the complexity of a study of actors in a given system, this module intended to help participants appreciate the importance of actors and networks for a systems perspective and to introduce some fundamental steps related to mapping and analyzing actors, networks, and relationships through tools such as network analysis and ethnographic qualitative inquiry. Furthermore, the module included practical exercises that were designed to give participants the opportunity to test, first hand, the techniques presented around ethnographic data collection and network analysis through the utilization of a user-friendly platform, *Kumu*. At the end of the module, participants were expected to have a deeper understanding of the importance of actors and networks as well as the relationships amongst them, and possess sufficient awareness of how to plan for, guide, and conduct an appropriate study of actors, including appropriate ethical considerations. The module was not designed to enable full mastery of the techniques introduced (network analysis and qualitative inquiry) given the short duration of the workshop.

The *Understanding Actors and Networks* module was the final module in a 3-part workshop. As such, the team set aside some time during the last day of the module for participant reflection on their learning experience during the training series and how they plan to integrate the three topics and the relevant techniques introduced.

### Objectives

This module aimed to clarify the concept of actors in relation to its importance in shaping behaviors and outcomes seen in a system. Specific objectives for this module included:

1. Use a systems thinking lens to understand actors, networks and relationships
2. Understand the benefits and uses of Social Network Analysis
3. Gain familiarity with the process and methodology associated with conducting Social Network Analysis
4. Develop understanding of qualitative research methods to engage various perspectives within a system
5. Understand how to reduce bias and ask probing questions

## Curriculum

The curriculum for the Actors Module combined instruction and hands-on activities and applications pertaining to two complementary tools that aid efforts to develop a robust system understanding: SNA and qualitative inquiry using ethnography.

The first day of the workshop focused on a review and introduction to Actors and Networks. The session began with participants' reflections on previous modules and the relevance of systems thinking in their work and field. Discussions focused on dynamically complex nature of social systems to highlight actors' contributions (i.e., motivations, presence or lack of relationships between actors) to this complexity. The key point stressed at the conclusion of this review was that as actors address a given problem, their behaviors and responses affect the actions and behaviors of others in a system. Understanding and improving networks and relationships can help align motivations and improve coordination, and in the process reduce competition and misallocation of resources. The curriculum continued with a discussion of actors including clarification of terms and concepts, different levels of actors and the importance of relationships. As a second step, networks and social capital, and their various types, were introduced as the matter that forms within and along the bonds of a network. Several interactive elements were used to clarify and substantiate these messages including the *fruit game* (an interactive game used to demonstrate the complexity of relationship flows and patterns that form among a group of people passing around fruit cards), a *Uganda Case Study* (where as a result of a lack of understanding of the cultural context and relationships among key groups in the area, the initial success of the project quickly dissipated), and *the investment* (describing relationships between and among people as a way of highlighting the difficulty of outsiders to fully comprehend the nuance of language and behavior in a local context). The first day of the training ended with viewing of a clip from the movie *The Godfather* illustrating interactions between networks, the role of social capital in network interactions, and how the rules of a network influence the behavior within. Each day participants were requested to reflect on what they have learned and provide feedback to trainers along with remaining questions.

During the second day of the workshop, the *Understanding Actors and Networks* Module focused on **Ethnography and related techniques**. First, participants were asked to act out in small groups given scenes from the "Lost in Translation" role-playing scenarios. This exercise is used to highlight the inevitability of biases in research and the need to use right techniques to solicit, listen for, and capture the information we seek in our local engagements. The subsequent ethnography lesson provided an overview of ethnography as an approach to social science research, and specifically, as a useful set of techniques and principles to enable a researcher to overcome some of the biases that can hamper qualitative data collection. A second iteration of the "Lost in Translation" group exercise allowed participants to make use of the techniques presented in the ethnography lesson.

The third day of the workshop continued to delve deeper in ethnography as a set of **Qualitative Research techniques** that can allow for deeper understanding of the motivations behind observed behavior of individuals and interactions of groups, helping us understand the system, uncover resistance to cooperation and change, and predict the impact of a rule or policy change. The lesson also included a discussion of common challenges in accessing information, practical tips and techniques to overcome such barriers, and a related group exercise. The final part of the lesson focused on ethics in qualitative



research including principles of ethical research. These included, among others, the benefits of research have to significantly outweigh the risks of participation (e.g., identification, stigmatization, or ostracization), and research must be conducted while maintaining respect for persons. Emphasis was placed on research involving vulnerable persons, which requires attention to the specific risks involved in such cases.

The fourth day of the workshop focused on mechanics of **Social Network Analysis (SNA)** – a systems approach that measures complex interactions between actors in a network. The participants were presented with the overarching theory behind SNA that significant actor-level outcomes in a system (e.g., performance, behavior, beliefs) can be predicted based on that actor's position in a network as it is this position that determines the constraints and opportunities that s/he will encounter (Borgatti 2013). SNA was presented as a tool that can be utilized in the context of program design, network facilitation, and monitoring and evaluation. In addition to the concepts of nodes and edges, discussions included examples of different SNA uses as well as its limitations and challenges. During the remainder of Day 4, participants were introduced to a six-step SNA methodology with the help of a case study that incorporated qualitative ethnography research as well as SNA mapping techniques and quantitative data. Plenary discussions and group exercises were intertwined as participants participated in the steps to create an SNA about the group itself. Important topics covered include: methods to identify actors, actor attributes, and data collection methodologies. Following a demonstration of the *Kumu* software, participants were invited to get familiar with the software using real data gathered during the workshop on the network among participants. The workshop also presented how SNA was utilized in the context of a previous project in Cambodia re-demonstrating the six-step process. The concluding discussion ensured participants understood that while SNA can answer *how* questions (e.g., how relationships in a network are structured and how they change), it cannot shed light on *why* questions. Causal explanations for SNA insights will require supplementing SNA analysis with other data collection and analysis approaches, such as follow-up interviews, surveys, and/or use of ethnographic techniques.

During the last day of the workshop, the participants were invited to begin mapping out an SNA that is relevant to their work domain and complete a SNA Planning Worksheet that would guide their efforts to incorporate SNA into their projects. The trainers guided the process, working with participants, answering questions, and providing input to evolving products.

## **Training Assessment**

### **Participant Feedback**

For the *Understanding Actors and Networks* Module, the training team received 33 executed surveys with 15 of them filled in English (by the Asia training participants) and 18 filled in Spanish (by the Latin America training participants). The participants voted 4.23 out of 5 on average for all feedback measures of satisfaction in Bangkok and 4.27 out of 5 in Mexico. The following section presents the feedback of the Asian and Latin American cohorts based on the aggregated survey data collected.

## Trainer Knowledge and Quality

In Bangkok, 80% of the respondents thought the trainers' subject matter knowledge was "excellent" or "good" with 20% saying it was "average." While 73% of the respondents agreed that the ability of trainers to explain and illustrate concepts were "excellent" or "good," 27% thought it was "average" or "fair." Trainers' ability to answer questions completely was rated as "excellent" or "good" by 80% of the participants, and "average" by 20%.

In Mexico, 89% of the respondents thought the trainers' subject matter knowledge was "excellent" or "good" with 11% saying it was "average." 89% of the respondents agreed that the ability of trainers to explain and illustrate concepts were "excellent" or "good", only 6% thought it was "average" and 5% thought it was "fair." Trainers' ability to answer questions completely was rated as "excellent" or "good" by 83% of the participants, "average" or "fair" 11% and "poor" by 6%.

In response to the open-ended question of "*what specifically did the trainers do well*" the respondents in Bangkok and Mexico provided a range of answers. When these answers were grouped together, the following themes emerged:

### *Explaining Concepts and Materials*

- They were able to answer our questions very well. For the topics that were not easily understood by the participants, the trainers were able to clarify and discuss again those topics.
- Explain the difficult concepts on SNA and Ethnography
- The trainers were knowledgeable of the topics. They explained the concepts well and responded to questions accordingly.
- Explained as many times as it may be necessary to reinforce knowledge
- They explained the subject well.
- Explained the concepts in detail and clearly
- They have a broad knowledge of the subject.
- The technical part was very clear.

### *Use of Examples and Exercises*

- Explained until it became clear, looked for many examples to help in understanding
- Explained things very easily with example and practice session
- Explain the concept using samples
- All the material provided by the trainers during Module 3 was practiced via exercise, so the participants could better understand it.
- Explained the concepts with examples and appropriate methodologies for understanding the topics
- Explained each concept in detail and also exemplified everything to make it clearer
- Clarified the concepts. Used practical exercises to transfer knowledge. Leaned on pedagogical resources
- Conceptualized explanations with accompaniment of practical exercises
- Provided information, explained and guided practical exercises

- Practical exercises and dynamics were very enriching methodologies, contributing to the understanding of the subject.

### **Training Content and Quality**

In Bangkok, 80% of the respondents agreed the usefulness of the training was “excellent” or “good,” while 13% found it “average” and 7% found it “fair.” 74% of the respondents thought the structure of the training was “excellent” or “good,” while 13% thought it was “average” and 13% found it “fair.” 73% of respondents felt that the pace of the training was overall “excellent” or “good” while 27% felt it was “average” or “fair.” A majority of the respondents (80%) believed that the training exercises were helpful. 100% of the respondents agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience.

In Mexico, 89% of the respondents agreed that the information provided by the training was “excellent” or “good” with 11% thinking it was “average” or “fair.” 72% thought the structure of the training was “excellent” or “good,” while 17% thought it was “average.” Respondents had mixed feelings about the pace of the training with 44% feeling it was “excellent” or “good” and 56% thinking it was “average,” “fair,” or “poor.” A majority of the respondents in Mexico (83%) believed that the training exercises were helpful. 94% of the respondents agreed (checked the “yes” box as opposed to the “no” box) that the training was appropriate for their level of experience.

The respondents rated the quality of training of the Understanding Actors and Networks module as follows in Bangkok:

- Introduction to Actors and Networks: “excellent” or “good” (80%), “average” (13%), and “fair” (7%)
- Introduction to Ethnography: “excellent” or “good” (73%), “average” (20%), and “fair” (6%)
- Designing a Network Analysis Study: “excellent” or “good” (80%), “average” (13%), and “fair” (7%)
- Integrating SNA and Ethnography: “excellent” or “good” (80%), “average” (14%), and “fair” (6%)
- Course Wrap Up session: “excellent” or “good” (80%), and “average” (20%).

The respondents rated the quality of the training of the Understanding Actors and Networks module as follows in Mexico:

- Introduction to Actors and Networks: “excellent” or “good” (83%), “average” (11%), and “fair” (6%)
- Introduction to Ethnography: “excellent” or “good” (83%), “average” (11%), and “fair” (6%)
- Designing a Network Analysis Study: “excellent” or “good” (83%), “average” (11%), and “fair” (6%)
- Integrating SNA and Ethnography: “excellent” or “good” (72%), “average” (17%), and “fair” (11%)
- Course Wrap Up session: “excellent” or “good” (78%), “average” (17%), and “fair” (5%)

In response to the open-ended question of “*what did you like most about the training,*” the respondents in Bangkok and Mexico provided a range of answers with the following themes:

### *Applicability of the Training to Development Field*

- Prior to this training most of the covered topics were unknown to me. So I enjoyed the training very much.
- The topics discussed are useful in community work.
- It presented new ways in looking for solutions to a complex problem.
- To my mind, the entire training is a great mind shifting which will allow to revise the organization's work and approaches applied not only in professional but also in personal spheres of trainees.
- The training is an essential step forward for the organizations as it makes the participants to look wider to the work they implement.
- The themes were adequate, practical, relevant and useful for our organization and work with the surrounding territories.
- The applicability of techniques in complex situations that allow for deeper analysis to understand the situation and its possible solutions
- The possibility of knowing two easily applicable tools to strengthen the processes in territory and management
- Ethnographic analysis is something that, sometimes, we take for granted as organizations, but which has a greater relevance to understand and analyze our environments.
- The facilitation of network analysis with the application of the *Kumu* tool will be very supportive for the processes and projects (external and internal) carried out in the organization.
- In general everything, but definitely the analysis of social networks was what excited me most
- The tool for Social Network Analysis is very valuable and visual like the *Kumu* software

### *Exercises and Group Learning*

- Having to work with my co-participants and learn from them
- The topic itself, its practical approach and the group environment
- The experience with the tools, the diversity and capacity of the group and the enjoyable methodology
- The learning of others, having met other people and sharing views with them. The dynamics and team exercises were the richest parts of the training. Thank you!
- Learning and the group of people that made up the experience
- [Learning about] the experiences of other countries
- Practical exercises
- Having the opportunity to share ideas with the rest of the group and with the facilitators, the moments of exchange that helped elucidate some aspects for the application of some tools in our daily work
- ...Social relations with other people and organizations. That a network of actors has been established

## Participant Input into Future Trainings

In response to an open-ended question on *recommendations for future trainings*, participants provided a range of inputs that can be organized into the following categories:

### *Curriculum*

- More exercises like role playing
- More simulated learning exercises for ethnography
- More [exercises] and small group discussions; less lectures
- Continue using group work for...exercises
- Present case studies that the participants can relate well
- Provide more examples that everyone is familiar with
- Use layman's language and present [examples] based on development work
- Please do not use the refugee commerce example
- The methodology should start from a single concrete case [study] and from there explain everything.
- Improve the examples... and have more didactic ways of showing them
- Shar[e] more case studies

### *Facilitation*

- Streamline group dynamics and discussions
- That the Social Network Analysis exercise be done with an academic approach so as not to generate delays or waste of time in debates
- Agree on methodologies and conceptualizations, take into account the resistance of the group with which you work to make the process more dynamic...especially in the afternoon
- According to the profile of the attendees move a little faster, deeper, perform the joint exercise on a single topic from the beginning
- Make [training] a little more dynamic
- Have more coordination among the trainers. Give participants a program (guide) of the topics presented during the training week

### *Time Allocation and Management*

- Improve and keep in mind a good time management
- Try to make better use of the time
- More activities with movement
- Manage group work times. More dynamic methodologies that allow connecting the topics for a better understanding of the participants. Avoid using long presentations with Power Point.

The participants did not provide any answers to an open-ended question on additional comments.

## Team's Assessment of the Training

### Strengths

Supported Learning with Practical Examples and Activities: During both iterations of the Actors workshop, participants gravitated toward tangible examples and hands-on activities. Participants seemed to particularly enjoy the concrete case studies that used ethnography and network analysis. The guided role-play activities were well received in both locations, as were the sessions that taught participants how to use the *Kumu* software, designing the network analysis and collecting real data.

Made Tools Accessible and Operational: The operational guides/materials developed to increase accessibility of the SNA and Ethnography tools appeared to be one of the strengths of the training in both locations. These materials were clear and practical, facilitating effective learning and operationalization of these systems tools. Additionally, the two tools were well integrated in presentation and practical application allowing participants to see how they complemented each other in inquiry of actors in a system. A related strength of the training was its length; the week-long workshop allowed sufficient time for participants to not only receive content in lecture form, but also to practice what they learned through guided exercises and activities.

Increased Enthusiasm and Commitment of Participants to Systems Tools: Participants left the training with concrete plans for how to use SNA and Ethnographic techniques in their work. Numerous participants expressed explicit intention to use both tools in the near future. In fact, multiple participants already followed up with the trainers for support as they were designing their network analyses and related inquiries. This is an indication that the participants found the materials to be accessible and relevant, internalized the tools, and were able to begin using them after the training.

### Areas for Improvement

#### *Planning*

Coordination among Design Team Members: The *Understanding Actors and Networks* module was co-designed by multiple consortium members. This led to coordination challenges when developing materials and integrating content into one clear and well-structured final product. The coordination efforts took place exclusively over the phone or through email. Additional collaboration time and resources in the content development phase would have allowed for a more integrated final product. Similarly, one or two in-person meetings would have improved the quality of collaboration, likely resulting in an improved final product.

#### *Curriculum*

Cultural and Context Considerations: Future regional training efforts should more explicitly account for differences in local contexts both within and across regions. In the case of this training, the cultural translation between the two iterations (targeting different regional audiences) was done informally by the trainers and would have benefitted from a more structured strategy on how to make the content more context-specific and culturally appropriate. Curricula for such trainings should also consider the

cultural differences that exist within a single region, incorporating examples and exercises that are applicable to different contexts.

Workshop Length: While the curriculum length was beneficial in allowing sufficient time for exercises and practical application, future curriculum design efforts may assess whether some curriculum compression is possible. This may help make the training more accessible to target audiences as the workshop length may have deterred some participants from attending the training in the first place or disrupted organizational operations of those participants who attended.

#### *Execution*

Language and Delivery: A number of execution areas may benefit from improvements in future iterations including delivery language, timing and style of training materials and follow-up support and mentoring. At a high level, the training content was delivered successfully in English in Bangkok and in Spanish (by one native and one non-native speaker) in Mexico. Yet, the training team noted some participants having difficulty with presentation language during *Understanding Actors and Networks* Module. It may be beneficial to conduct a more realistic assessment of the participants' language abilities and preferences before future training efforts are executed to determine the optimal delivery language or language capabilities needed in training facilitators.

Availability of Workshop Materials: The training team developed and delivered hard copies of training handouts during the Actors workshop. There were however requests during the training from the participants for electronic copies of the handouts as well as requests for additional resources. Moreover, the participants indicated that they would have preferred to receive the handouts ahead of the training. Future training efforts may consider providing greater amount of resources and share these with participants electronically before the workshop begins, allowing participants to review them ahead of the training.

Post-Training Coaching and Follow Up: The training team did not have resources to continue working with the participants following the workshop. Even though the trainers provided the individual participants or organizations with informal, courtesy coaching responding to their request for support, a more organized and formal approach to long-term coaching should be considered as an integral part of transferring systems tools to local audiences. Training participants cannot be realistically expected to master these tools and related operationalization processes at the end of a week-long training. Systems approaches require a mindset change and such shift in thinking and practice cannot be expected to happen overnight. As such, for best results, the training should be followed by long-term coaching and mentoring. Future training efforts should allocate some resources to this specific purpose within the overall project budget with the authorization of the funding agency.

## Section 5: Conclusion

Overall, the team felt that the systems thinking training sessions held in both the Asia and Latin America regions were very successful. The training was well received by participants, who were able to understand and apply complex concepts to achieve real insights, even in a short amount of time. The team identified what went well as well as areas for improvement, in terms of planning, curriculum, and execution, so the quality of the training can be maintained and improved upon. Those are summarized here.

### Strengths

The team accomplished the majority, if not all, of the learning objectives associated with each training module, using an interactive and customized approach that fostered a dynamic learning environment. The team was also able to incorporate lessons learned from the pilot training to develop more responsive, in-depth training at a larger scale. Several themes emerged in the area of strengths.

- **Learning Through Doing.** All three modules organized their curricula around an experiential design that allowed significant time for practical application of the concepts and methods presented. This allowed participants to understand and internalize the material, and in many cases they were able to apply it to their actual area of interest. Training teams supported experiential learning even when it was more difficult to implement – for example, with some teams staying after-hours to review participants' work products so feedback and guidance would be more responsive the next day.
- **Provision of Tools and Templates.** The training teams all developed worksheets, templates, and practical guides that participants could use to implement the same methods from the workshops back in their local contexts. This allows for replicability of results, orients practitioners even when they are beginners at their methods, and gives them confidence that they can use and transfer the tools if they follow the outlined steps.
- **Devoting Time to Transfer Knowledge.** By developing a training concept of three one-week sessions with each session focusing on a separate module, the training team allowed enough time for both lecture and practice. Implementing a training with a series of sessions of targeted sessions also allowed trainees to experience different aspects of systems thinking without being overwhelmed by a single, comprehensive training that packed a large variety of concepts and tools into a short timeframe.
- **Thoughtful Design of Curriculum.** The team leveraged lessons learned from the pilot training as well as their own expertise to thoughtfully develop curricula that could be easily followed and applied, even without prior experience. Examples include taking extra time for foundational concepts (e.g., causality), selecting a variety of examples that could illustrate concepts, and, where possible, and following one example through the week of training so participants could reference a familiar case study with new concepts and perspectives to use.
- **Generating Enthusiasm for Systems Thinking.** Participants left sessions energized and with explicit plans to use the tools they learned in all three modules. The training team



introduced action planning into all three modules in order to harness this enthusiasm and help participants organize their thinking into practical next steps.

## **Areas for Improvement**

### **Planning**

Planning for the training generally went well; however, two areas were identified where the team could focus on for improvement. The first involves a trade-off between providing amenities for participant vs. providing more funding to individuals or inviting more participants. The team attempted to strike a balance, but could give more thought to balancing costs vs. accommodations in the future. The second planning issue identified is a need for greater coordination among design team members. The team used a “divide and conquer” approach to the curriculum updates from the pilot. While this worked well for modules where one consortium partner was primarily responsible for content updates, it worked less well when multiple partners were designing a module together.

### **Planning**

Planning for the training generally went well; however, two areas were identified where the team could focus on improvement. The first involves a trade-off between providing amenities for participant vs. providing more funding to individuals or inviting more participants. The team attempted to strike a balance, but could give more thought to balancing costs vs. accommodations in the future. The second planning issue identified is a need for greater coordination among design team members. The team used a “divide and conquer” approach to the curriculum updates from the pilot. While this worked well for modules where one consortium partner was primarily responsible for content updates, it worked less well when multiple partners were designing a module together.

### **Curriculum**

The primary areas for curriculum improvement relate to three different tradeoffs that the training team noted about the training content. First, curriculum needs to be adapted to better suit cultural and context considerations. This is a particular challenge with a regional training concept, since one example will not likely apply to a range of participants from different countries, cultures, educational backgrounds, and sectors. Still, adaptation for the audience context is always preferred.

Second, while devoting sufficient time to the workshops was a strength, the length of the entire training and duration of each session (i.e., week-long workshops) may have posed a barrier to access for some who could not be away from their organizations or families for three one-week sessions.

Third, there appears to be a tradeoff between proper balance between letting participants work on their own issue areas versus pre-selected topics. Participants appreciated applying the concepts to their own work, which they were knowledgeable about; however, this approach limits instructors’ potential insights if they are not familiar with the topic(s) selected. Instructors then must rely on the participants’ explanation of the dynamics involved, as they are unable to independently research and confirm the participants’ perspectives. The other option of pre-selecting topics for practical exercises would ensure the trainers are knowledgeable about the topics being discussed and can provide more responsive

feedback, but it limits the post-training utility of the work products for participants, and also may put participants in the position of trying to work on complex issues that they themselves are not familiar with.

## **Execution**

Some execution issues arose around language and delivery in both cohorts. Some participants had difficulty with presentation language during the English versions, as it was not their first language; meanwhile some of the Spanish-speaking participants noted instructor difficulties in explaining advanced concepts in a non-native language, and suggested also having translators available for practical exercises. Future iterations should include assessment of language abilities and preferences to determine the best approach. Time management was a constant execution challenge as trainers continually balanced progress and learning related to group activities and discussions with the need to keep on schedule so all content could be delivered properly. Future trainings should also consider the best approach to providing training materials (read-aheads, handouts, printed materials) in light of lessons learned during this training. The training team would also have preferred to conduct coaching and follow-up after the training to assist participants in applying the tools and methods shared; however, this was not included in the current funding. Future training events should build a mentoring phase into the execution plan.

# Appendix I: Participant Survey Template

This survey is **confidential**. Your candid feedback on this week's systems training is appreciated.

Please select the rating for each section based on the following criteria:

5=excellent 4=good 3=average 2=fair 1=poor

**Please rate the trainers on the following:**

Knowledge of the subject matter. ☐5 ☐4 ☐3 ☐2 ☐1

Ability to explain and illustrate concepts. ☐5 ☐4 ☐3 ☐2 ☐1

Ability to answer questions completely. ☐5 ☐4 ☐3 ☐2 ☐1

**Open-ended comments:**

What specifically did the trainers do well?

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What recommendations do you have for the trainers to consider for future trainings?

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**Please rate the quality of each of the training modules:**

Topic 1 [differed by Module] ☐5 ☐4 ☐3 ☐2 ☐1

Topic 2 [differed by Module] ☐5 ☐4 ☐3 ☐2 ☐1

Topic 3 [differed by Module] ☐5 ☐4 ☐3 ☐2 ☐1

Topic 4 [differed by Module] ☐5 ☐4 ☐3 ☐2 ☐1

Topic 5 [differed by Module] ☐5 ☐4 ☐3 ☐2 ☐1

**Please rate the content and structure of the training:**

The usefulness of the information ☐5 ☐4 ☐3 ☐2 ☐1

The structure of the training sessions ☐5 ☐4 ☐3 ☐2 ☐1

The pace of the training sessions ☐5 ☐4 ☐3 ☐2 ☐1

The usefulness of the training exercises ☐5 ☐4 ☐3 ☐2 ☐1

Was this training appropriate for your  
level of experience?

☐ Yes ☐ No

If you said “No”, please explain:

---

What did you most like about the training?

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# Appendix II: Agendas

## Module 1: Introduction to Systems Thinking

### Bangkok and Mexico City

<b>Day 1</b>	Course Introduction Understanding systems thinking Key concepts for systems thinking
<b>Day 2</b>	Processes of systems change Exercises for systems thinking
<b>Day 3</b>	Explore your system
<b>Day 4</b>	Systems exploration action plan Systems tools overview Wrap up and review

## Module 2: Factors

### Bangkok

<b>Day 1</b>	Introduction to Factors and Causality
<b>Day 2</b>	Causal Loop Diagram Theory and Practice
<b>Day 3</b>	Causal Loop Diagram Exercise, Continued
<b>Day 4</b>	Archetypes and Leverage Points
<b>Day 5</b>	Leverage Points and Next Steps

### Mexico City

<b>Day 1</b>	Introduction to Factors and Causality
<b>Day 2</b>	Causal Loop Diagram Theory and Practice
<b>Day 3</b>	Causal Loop Diagram Exercise, Continued
<b>Day 4</b>	Archetypes and Next Steps

## Module 3: Actors

### Bangkok and Mexico City

<b>Day 1</b>	Review of Modules 1 and 2 Understanding Actor Analysis Understanding Networks
<b>Day 2</b>	Intro to Ethnography Intro to Social Network Analysis
<b>Day 3</b>	Ethnographic Techniques and Ethics in Research Mechanics of Social Network Analysis
<b>Day 4</b>	Ethnographic Techniques and Ethics in Research Mechanics of Social Network Analysis
<b>Day 5</b>	Social Network Analysis Action Planning Module and Course Wrap Up

# Appendix III: Systems Thinking Training Participants

## Asia Cohort

No	Participant	Organization	Country of Residence
1	Agnes Somogat Bolanos	Mindanao Coalition of Development NGO Networks (MINCODE)	Philippines
2	Raizsa Mae Magnulamus Anayatin	Mindanao Coalition of Development NGO Networks (MINCODE)	Philippines
3	Rashiduzaman Ahmed	Nature Conservation Management (NACOM)	Bangladesh
4	Touhidul Islam	Nature Conservation Management (NACOM)	Bangladesh
5	Jacquelyn Aguilos Arcangel	Gerry Roxas Foundation	Philippines
6	John Ronald Rivera Almonina	Gerry Roxas Foundation	Philippines
7	Vivien Christi Saldua Trocio	Alcantara Foundation	Philippines
8	Nguyen Thi Thu Trang	GreenHub - Centre for Supporting Green Development	Vietnam
9	Aliya Rustambekova	Public Association "Bereke"	Kazakhstan
10	Roza Abdullayeva	Public Association "Bereke"	Kazakhstan
11	Leilani Cervania Naval	Tropical Disease Foundation Inc.	Philippines
12	Marita Puro Rodriguez	NGOs for Fisheries Reform	Philippines
13	Oliver Ryan Hui Salva	Curiosity	Philippines
14	San Chey	The Affiliated Network for Social Accountability (ANSA) Cambodia	Cambodia
15	Ian Joune Domanillo Fernandez	Tuason Development Foundation Inc.	Philippines
16	Richlie Lyndon Luza Magtulis	Alcantara Foundation	Philippines

## Latin America Cohort

No	Participant	Organization	Country
1	Astrid Valeria Herrera Obregón	Asociación de Educación y Comunicación "La Cuculmeca"	Nicaragua
2	Lesbia Karina Gadea Salguera	Asociación de Educación y Comunicación "La Cuculmeca"	Nicaragua
3	Nancy Gabriela Franco Guillen	Cecropia Soluciones Locales a Retos Globales	Mexico
4	Ursula Fernanda Tovilla Sanchez	Cecropia Soluciones Locales a Retos Globales	Mexico
5	Manuel González Piña	Consejo Ciudadano de Seguridad y Justicia de Chihuahua AC	Mexico
6	Pamela C. Pérez Gómez	Consejo Ciudadano de Seguridad y Justicia de Chihuahua AC	Mexico
7	Fernando Valencia Rivera	Corporacion Conciudadania	Colombia
8	Maria Isabel Salinas	Corporacion ECOSS	Colombia
9	Mario Miguel Méndez Méndez	Corporacion ECOSS	Colombia
10	Alba Isabel Sepúlveda Arango	Corporación Región para el Desarrollo y la Democracia	Colombia
11	Luis Fernando Herrera Gil	Corporación Región para el Desarrollo y la Democracia	Colombia
12	Jonathan Javier Velasco Romero	Fundacion Comunitaria de Oaxaca	Mexico
13	Andrea Isabel Aguilar Ferro	Fundacion Defensores de la Naturaleza	Guatemala
14	Cesar Leonel Tot Coy	Fundacion Defensores de la Naturaleza	Guatemala
15	Edgar Antonio Nájera Hernández	Fundación Don Bosco para el Desarrollo del Estudiante Morelense AC	Mexico
16	Jaime Enrique Trespalacios Martínez	Fundacion Hijos de la Sierra Flor	Colombia
17	Javier Antonio Martin Rodriguez	Grupo Argos S.A.	Colombia
18	Katerine Martinez Alvarez	Grupo Argos S.A.	Colombia
19	Diana Cecilia Maldonado Yeverino	Institución Renace A.B.P.	Mexico
20	Vanessa Ivonne Carranza Hernández	Institución Renace A.B.P.	Mexico
21	Diana Chavarri Cazaurag	Seguridad y Justicia de Ciudad Juarez A.C.	Mexico
22	Maria Josefina Linda Carreon Chavez	Seguridad y Justicia de Ciudad Juarez A.C.	Mexico
23	Karla Silvia Meza Soto	Sin Fronteras IAP	Mexico
24	Estela Alexandra Correa Torres	Directora General Adjunta	Mexico