

## APPENDIX A

### 1 Methods

#### 2 Generating the sample

3 Members of the research team used their network of contacts to first reach out to individuals in government  
4 agencies in many sectors with the idea being to ensure that formal decision-makers and supporting technical  
5 staff be well-represented in the sample. Additional contacts suggested by this first pool of contacts were  
6 then contacted—reflecting a “snowball sampling” approach. The sample was then extended beyond decision  
7 makers to include NGOs, development/donor agencies, and academic/research institutions using the same  
8 approach. Approximately 300 individuals were included in the initial needs assessment study in this  
9 manner.

#### 10 In-person stakeholder consultations

11 Many individuals from the initial sample pool were invited to in-person consultations. Approximately  
12 one-third were not able to attend due to travel costs or other resource constraints. Stakeholder consultations  
13 were conducted with two groups:

- 14 1. Meetings with targeted government agencies, academic and research institutions and other institutions;  
15 and
- 16 2. Structured roundtable discussions with primarily non-government stakeholders (including those  
17 from academic and research institutions, NGOs and civil society groups, multi- and bilateral aid  
18 agencies, United Nations and similar governance bodies, and private sector entities).

19 At the targeted meetings and the roundtable events, participants were asked to identify:

- 20 • Priority thematic areas where geospatial data and/or technologies could enhance decision making;
- 21 • Key needs and gaps in terms of specific geospatial datasets;
- 22 • Data sharing issues and challenges;
- 23 • Capacity needs and gaps with regard to geospatial data, technologies, and application in decision  
24 making; and
- 25 • Existing initiatives (e.g., projects, decision support tools, online data portals etc.) that are related to  
26 any of the above.

27 Detailed notes were taken during the roundtables, emerging themes were discussed and placed on  
28 whiteboards or other media, and a “dot voting” approach used to identify group priorities; each participant  
29 was given three votes to indicate their top priorities from the list. These results were tallied. After the  
30 meetings the discussion notes were further coded to investigate relationships between themes in the  
31 discussion and country and professional context of participants.

#### 32 Online Questionnaire

33 An invitation to complete an online questionnaire was circulated via email to the entire Mekong SERVIR  
34 sample pool based on contact information compiled in the initial snowball sampling process. A special  
35 effort was made (e.g. extending more than one invitation via email or phone call) to include stakeholders  
36 who could not attend the live stakeholder consultations, due to travel and other constraints. The respondents  
37 were queried regarding their:

- 38 1. Professional role, institutional affiliation, and GIS and remote sensing background;
- 39 2. Perspectives on geospatial data and technology needs in terms of key themes, data needs and gaps,  
40 data sharing challenges, capacity needs and gaps, decision support tools and applications; and

- 41 3. Perspectives on gender issues related to the preparation, use and access to geospatial data and  
42 technologies.
- 43 Questions were a mix of short answer, multiple answer multiple choice, and rating scale format with  
44 opportunities for open, long-form clarification or explanation if needed.

## **APPENDIX B**

**Table 1.** General problems identified regarding data sharing. Respondents marked all that applied. N = 46

Problem Number	Number
It is difficult to know what datasets are available	33
No mechanism for sharing data among organizations working on the same problem	30
Organizations do not grant access to data	29
Datasets are based on different standards so that integration becomes resource-intensive	29
Historical data are not available in digital form	28
Datasets are expensive	24
Poor internet connectivity limits data sharing	13
No problems encountered in sharing data among organizations	5
Others	2

**Table 2.** Possible solutions identified regarding data sharing. Respondents mark all that applied. N = 47

Solution	Number
Organizations should follow open data standards	39
The State must set a policy for the responsible sharing of data	35
Datasets should be accompanied by metadata	30
Organizations should be given financial or other incentives to share datasets	20
Other	1

**Table 3.** Respondents' desired general knowledge. N = 45

Type of Knowledge	Number
What data are available	35
Basic knowledge of relevant science	21
Basic knowledge about GIS	22
Basic knowledge about remote sensing	24
How geospatial data and analysis informs decisions	31

**Table 4.** Respondents' desired training topics. N = 43

Training topic	Number
Use of GIS software	13
Use of specialized instruments	10
Specialized GIS-based modelling techniques	25
Interpreting maps	17
Analyzing spatial data	31
Communicating spatial analysis to general audience	22

**Table 5.** Respondents' area of desired capacity building. N = 44

Area	Number
Applying research results to development work	24
Using relevant geospatial data or tools for planning	26
Using relevant geospatial data or tools for operational decisions	28
Integrating gender analysis for planning	11
Integrating gender analysis for operational decisions	14
Communicating spatial analysis to general audience	22

- 45 Respondents indicated strong interest in building their overall knowledge capacity (tables 3-5), with a  
 46 preference for short (3-7 days) and long training (2-3) courses over other modes of capacity building.

**Table 6.** Mekong First Workshop on Regional Land Cover Monitoring System

Government	22	Thailand	8	Male	41
NGO	21	Myanmar	5	Female	13
University	11	Cambodia	10		
		Laos	7		
		Vietnam	9		
		Regional	15		
Total participants	54				

**Table 7.** Hindu Kush Himalaya Policy and Planning Workshop on Regional Land Cover Monitoring System

Government	10	Afghanistan	3	Male	35
Others	29	Bangladesh	4	Female	4
		Myanmar	1		
		Nepal	5		
		Regional	26		
		Regional	15		
Total participants	39				