End User Data and Information Needs

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The SERVIR Network

- Mesoamerica: Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC)
- Africa: Regional Centre for Mapping of Resources for Development (RCMRD)
- Himalaya: International Centre for Integrated Mountain Development (ICIMOD)
SERVIR aims to improve environmental management and resilience to climate change by strengthening the capacity of government and other key stakeholders to integrate Earth observations and geospatial technologies into decision making.

SERVIR is a platform for collaboration and cross-agency coordination, international partnerships, and delivery of information services and applications.
In Kenya, as with many other countries in Africa, frost damages are a significant threat to agriculture.

Using satellite datasets, SERVIR has put together a system for early detection of frost and for damaged area assessment. Next phases will include near real time temperature observations and forecasts of frost areas.
This early framework helped clarify the division between Supply, Demand, and Capacity Building and identify the particular strengths and skills required to fulfill each intermediate result.
### USAID Strategic Goals

<table>
<thead>
<tr>
<th>SO 1. Accelerate the transition to low emission development through investments in clean energy and sustainable landscapes</th>
<th>SO 2. Increase resilience of people, places, and livelihoods through investments in adaptation, and</th>
<th>SO 3. Strengthen development outcomes by integrating climate change in Agency programming, learning, policy dialogues and operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1: Establish foundation for low carbon energy systems</td>
<td>R1: Improve access to science and analysis for decision-making</td>
<td>R1: Integrate climate change across USAID’s development portfolio</td>
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<tr>
<td>R2: Invest in use practices that slow/reverse emissions from deforestation and degradation of forests and other landscapes</td>
<td>R2: Establish effective governance systems</td>
<td>R2: Elevate the role of development in climate change dialogues and policies. <em>(3. Help USAID Missions and their partners benefit from and direct business to regional hubs)</em></td>
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<td>R3: Identify and take actions that increase climate resilience</td>
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<td>R3: Lead by example through adoption of low emissions and energy saving practices</td>
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### NASA ASP Goals

**STRATEGIC GOAL #1. Enhance Applications Research:** Advance the use of NASA Earth science in policy making, resource management and planning, and disaster response.

1. Identify and track evolving societal needs
2. Collaborate with organizations requiring and interested in NASA Earth applications
3. Assess and influence technology trends
4. Conduct research that a) solves basic challenges in applying Earth science, b) generates innovative and breakthrough applications, and c) investigates dependencies between climate change impacts and social and economic systems
5. Perform pilot projects, in collaboration with user organizations;
6. Expand participation in interagency and intergovernmental activities that address adaptation to and mitigation of climate change.

**STRATEGIC GOAL #2. Increase Collaboration:** Establish a flexible program structure to meet diverse partner needs and applications objectives.

1. Achieve the greatest possible leverage of available budget through partnerships and relationships with organizations that provide complementary resources
2. Expand the number of end-users by promoting partner collaborations and networks that extend the program’s reach
3. Establish projects that reflect a) the multidisciplinary nature of Earth applications (scientific, economic, social, technological), b) the need for multi-phase research (from basic applications research to implementation), and c) the varying technical capacity of organizations to utilize applications

**STRATEGIC GOAL #3. Accelerate Applications:** Ensure that NASA’s flight missions plan for and support applications goals in conjunction with their science goals, starting with mission planning and extending through the mission life cycle.

1. Accelerate the transition of science to applications by facilitating communication between the applications community and the basic research and flight mission communities
2. Establish foundation for low carbon energy systems
3. Assess and monitor society’s upcoming observational needs over the duration of mission lifetimes
4. Evaluate the potential for current and planned NASA missions to meet societal needs through applied sciences participation in mission science teams
5. Integrate user needs and requirements into future mission planning in collaboration with the Earth Science Flight Programs and the Research and Analysis Program *(1. Obtain feedback about satellites, products and applications to be used in design of new satellites, products and applications)*
SERVIR Project Goals

• **Goal 01:** Provide knowledge management and quality assurance enabling online access to high quality geospatial information, products, and data (including information, products and data that are not generated by SERVIR) and distributing user-tailored tools and applications.

• **Goal 02:** Create and adapt user-tailored tools and applications (e.g. disasters).

• **Goal 03:** Strengthen and contribute to the technological capacity, scientific capacity, and other capacities (e.g., management, evaluation, financial, governance, organizational etc.) of the regional hubs so the hubs can provide geospatial data, tools, models, and applications to decision-makers in the long term.

• **Goal 04:** Ensure that SERVIR adds value and harmonizes the SERVIR mission with the strategic mission of the host institution so that services are provided into the future.

• **Goal 05:** Build capacity and desire to use geospatial data to influence and make informed decisions for national governments and other stakeholders.

• **Goal 06:** Foster the sharing of technical applications, data and knowledge across the network.

• **Goal 07:** Encourage free and open data and product exchange in regional hubs and countries.

• **Goal 08:** Enable access to in situ data that improves and informs earth science observation models

• **Goal 09:** Strengthen the evidence base about the development and environmental impact of SERVIR on decision-making including cost vs. benefit, and lessons learned.

• **Goal 10:** Share knowledge about effectively developing and delivering user-tailored climate services
# Mapping Project Activities

## USAID/NASA Strategic Goals and Sub Actions/IR’s

<table>
<thead>
<tr>
<th>Sub Actions/IR’s</th>
<th>USAID Strategic Goals</th>
<th>NASA ASP Goals</th>
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<tbody>
<tr>
<td>1. Needs, Performance, and Impact Assessments</td>
<td>Goal 09: Strengthen evidence-base about the development and environmental impact of SERVIR on re-vegetation including carbon, benefit, and lessons learned.</td>
<td>STRATEGIC GOAL #1: Enhance Applications Research Activities to enhance SERVIR’s ability to add value to the objectives, produce and disseminate products, and provide services.</td>
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<td>2. Core Infrastructure and Regional System Implementation</td>
<td>Goal 15: Share knowledge management and quality assurance enabling online access to high-quality, geospatial information, products, and data (including information, products, and data that are not generated by SERVIR and distributed via tailored tools and products).</td>
<td>STRATEGIC GOAL #2: Increase Collaboration and Enhance Knowledge Exchange and Best Practice Sharing.</td>
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<td>3. Scientific and Technical Support for Regional User Needs</td>
<td>Goal 10: Create and adopt contextual tools and applications (e.g., disease).</td>
<td>STRATEGIC GOAL #3: Accelerate Innovation.</td>
</tr>
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<td>4. Training and Capacity Building</td>
<td>Goal 11: Strengthen and contribute to the technological capacity, scientific capacity, and other capacities (e.g., management, evaluation, financial, governance, organizational) of the regional hubs so that they can provide geospatial data, tools, models, and applications for decision-makers in the long term.</td>
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<tr>
<td>5. Governance and Financial Sustainability</td>
<td>Goal 14: Ensure that SERVIR are self-sustained and harmonize the SERVIR mission with the strategic mission of the lead institution or organizations as defined and needed.</td>
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<td>6. Communications and Outreach</td>
<td>Goal 17: Encourage free and open data and product exchange in regional hubs and countries.</td>
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**SERVIR Unique**

**As of: 7-23-13**

**Draft:**

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**USAID/ NASA 6 Categories of Work for SERVIR from work plan**

**Common Goals/ from May Sustainability Meeting**
SERVIR Demand Task
Strengthening the demand for science tools and data
The objective of the SERVIR Demand Task is strengthening the capacity to use, and demand geospatial tools and decision support applications offered by the SERVIR Program.

<table>
<thead>
<tr>
<th>Task</th>
<th>Objective</th>
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<tbody>
<tr>
<td>Task 1: User Engagement</td>
<td>Increase demand for SERVIR Program tools and services</td>
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<td>Task 2: Impact Evaluation</td>
<td>Assess impact of SERVIR program products to address climate change</td>
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<td>Task 3: Communications</td>
<td>Develop and implement a SERVIR program communication strategy</td>
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<tr>
<td>Task 4: Sustainability</td>
<td>Develop SERVIR program sustainability plans</td>
</tr>
<tr>
<td>Task 5: New Hubs</td>
<td>Assist USAID regional missions with new SERVIR program hubs</td>
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<td>Task 6: Small Grants Program</td>
<td>Develop and implement a Grants under Contract Program</td>
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<tr>
<td>Africa</td>
<td>Himalaya</td>
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<tr>
<td>--------------------------------------------</td>
<td>---------------------------------------------------</td>
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<tr>
<td>• SERVIR-Africa product catalog</td>
<td>• User landscape overview report</td>
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<tr>
<td>• Member State Engagement Database</td>
<td>• SERVIR-Himalaya product catalog</td>
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<tr>
<td>• In-depth case study of GHG project</td>
<td>• Customer Database (CRM)</td>
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<td>• In-depth case study of Forest Fire Application</td>
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<td>• In-depth support to operationalize use of science applications</td>
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<td>• <em>Full-time Demand Specialist</em></td>
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<td><strong>Africa</strong></td>
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<tr>
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<td>• SERVIR Africa communications plan to support RCMRD comms strategy</td>
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<td>• 1-4 outreach events</td>
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<td></td>
<td>• Marketing collateral/materials</td>
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<tr>
<td></td>
<td>• <em>Full-time Communications Specialist</em></td>
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Key aspects of user engagement for SERVIR

- Communications
- Monitoring & Evaluation,
- Management of Priority Applications (aka small grants)
- Customer Relationship Management

Strengthening capacity of the Regional Hubs

Implementation of long term outcome-based planning

Product Life Cycle approach for new products and services

Supporting user-driven communities of practice
Shorter Term Outcomes
Are the first steps towards Societal Change
Such as:
• New Knowledge
• Increased Skills
• Changed Attitudes

Medium Term Outcomes
Can’t happen without short term outcomes and are often:
• Modified Behavior
• Changed Policies, Practices
• Changed Decision Making

Longer Term Outcomes
Can’t happen without short and medium term outcomes and may be:
• Changed Environmental Condition
• Changed Civic Condition
• Changed Human conditions (saved Lives)

Outcome Based Planning focuses on actual Impacts versus simply deliverables
Product Life Cycle – Why?

How Projects Really Work (version 1.5)

1. How the customer explained it
2. How the project leader understood it
3. How the analyst designed it
4. How the programmer wrote it
5. What the beta testers received
6. How the business consultant described it
7. How the project was documented
8. What operations installed
9. How the customer was billed
10. How it was supported
11. What marketing advertised
12. What the customer really needed
Product Life Cycle – What?

• A strategic business approach that applies a consistent set of business solutions that support the collaborative creation, management, dissemination and use of product definition information
  – Supporting the extended enterprise (customers, design and supply partners, etc.)
  – Spanning from concept to end of a product
  – Integrating people, processes, business systems, and information
Product Life Cycle Phases

Phase 1: Identification & Assessment of Opportunities / Problems
Phase 2: Definition of End Users and Outcome
Phase 3: Definition of User Requirements
Phase 4: Detailed Planning, Preparation of Specifications and Designs
Phase 5: Work Performance (and Quality Assurance)
Phase 6: Delivery & Acceptance
Thanks!

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