

## Service Catalogue

SERVIR uses a service approach to bring diverse stakeholders together to identify local development problems and co-design solutions that use satellite data, Earth science, and geospatial technologies. The resulting solutions are tailored, need-based decision-support products (tools, data sets, training resources and capacity building activities). SERVIR calls these solutions “services” because they are more than standalone geospatial products and expected to be sustainable and evolve as a long-term service offered by the implementing partners to improve environmental decision-making.



### Deforestation Monitoring & Reporting Ecuador

#### Goal

Provide continuous and rigorous information about the forest and other ecosystems' status and changes.

#### Co-developers

- Spatial Informatics Group (SIG)
- FAO
- Ministerio del Ambiente y Agua de Ecuador (MAAE)
- Consorcio de Gobiernos Autónomos Provinciales del Ecuador (CONGOPE)



### Monitoring and Evaluation of Mangroves Guyana

#### Goal

Provide a platform for automating the analysis of radar and optical imagery going back several years and setting a year-2020 baseline for future analysis. This service makes mangrove-related land-use change transparent and the resulting analysis publicly available for use by government and civil society.

#### Co-developers

- National Agricultural Research and Extension Institute (NAREI)
- University of Guyana (UG)
- Alliance Bioversity International - CIAT
- Spatial Informatics Group (SIG)



### Mapping of Soil Fertility Ecuador

#### Goal

Generate high-resolution digital soil maps to support efforts in maintaining rural soil fertility, increasing productivity, and preventing contamination contributing to reduce soil desertification and degradation in Ecuador.

#### Co-developers

- Alliance Bioversity International - CIAT
- Ministerio de Agricultura y Ganadería (MAG)



### TerraBio Brazil

#### Goal

Assess the impact of private sector engagement on biodiversity conservation in the Amazon by characterizing forest and habitat dynamics.

#### Co-developers

- Alliance Bioversity International-CIAT
- Spatial Informatics Group (SIG)
- Instituto de Manejo e Certificação Florestal e Agrícola (Imaflora)



### Monitoring of Gold Mining in the Peruvian Amazon Peru

#### Goal

Quickly identify possible new illegal mining fronts in priority areas, such as protected area buffer zones, and persistent activity in degraded areas.

#### Co-developers

- Conservación Amazónica (ACCA)
- Ministerio del Ambiente (MINAM)
- Programa Nacional de Conservación de Bosques para la Mitigación del Cambio Climático (PNCBMCC)
- Spatial Informatics Group (SIG)



### Improving Resilience and Reducing Risk of Extreme Hydrological Events Peru, Colombia, Brazil

#### Goal

Provide stakeholders in the Amazon Basin region with improved flood forecasting ability, including more accurate information about timing, magnitude and impact, to increase their understanding of risks and support greater resiliency to flood disasters.

#### Co-developers

- Brigham Young University (NASA/AST J. Nelson)
- Environmental Modeling Laboratory (EMRL)
- Servicio Nacional de Meteorología e Hidrología (SENAMHI)
- Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)
- Centro Nacional de Monitoreo y Alertas de Desastres Naturales (CEMADEN)



### Forecasting Seasonal to Sub-Seasonal Fire & Agricultural Risk from Drought Colombia, Brazil

#### Goal

Provide information for mitigating the negative impacts of drought and fire on forest and agriculture in the Amazon basin, evaluating drought conditions at temporal and spatial resolution to predict fire vulnerability.

#### Co-developers

- Goddard Space Flight Center (NASA/AST D. Morton)
- Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)
- Secretaria de Estado de Meio Ambiente (SEMA-Acre)
- Centro Gestor e Operacional do Sistema de Proteção da Amazônia (CENSIPAM)



### TerraOnTrack - Monitoring Community Lands, Protecting Forests and People Brazil

#### Goal

Contribute to community-based initiatives working within the Brazilian Amazon by introducing technological resources that will allow them to quickly identify potential threats to their territories and monitor illegal activities on the ground, which in turn will increase their territorial management capacities and protect forests.

#### Co-developers

- Instituto de Manejo e Certificação Florestal e Agrícola (Imaflora)
- Spatial Informatics Group (SIG)



### Ecosystem Services Modeling in the Amazon's Forest-Agricultural Interface Brazil and Peru

#### Goal

Provide accurate maps for stakeholders and decision-makers to understand the policy and economic scenarios that tip agricultural production systems towards deforestation, particularly due to palm oil and cocoa production.

#### Co-developers

- NASA Jet Propulsion Lab (NASA/AST N. Pinto)
- Alianza Cacao
- Servicio Nacional de Áreas Naturales Protegidas por el Estado (SERNANP)
- EMBRAPA - Unidade Amazônica Oriental (Estado do Pará)
- Centro de Conservación, Investigación y Manejo de Áreas Naturales - Cordillera Azul (CIMA)



### Quantifying the Effects of Forest Changes on Provisioning & Regulating Ecosystem Services Brazil and Peru

#### Goal

Allow regional and local planners and decision-makers, and citizens of Acre and Ucayali to better understand the tradeoffs between development activities and ecosystem services.

#### Co-developers

- University of Richmond (NASA/AST S. Spera)
- Spatial Informatics Group (SIG)
- Universidade Federal do Acre (UFAC)
- Secretaria de Estado de Meio Ambiente (SEMA-Acre)
- Comissão Pró-Índio do Acre (CPI-Acre)
- Conservación Amazónica (ACCA)
- Universidad Nacional de Ucayali (UNU)
- Servicio Nacional de Áreas Naturales Protegidas por el Estado (SERNANP)



Alliance



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