

# PROJECT PROFILE FORM

NAB Project № <i>[completed by NAB]</i>
GIP code/Project № <i>[obtain from DSPPAC]</i>
Cost Centre/Activity № <i>[obtain from Dept.]</i>
Donor/DSPPAC file № <i>[obtain from DSPPAC]</i>

**1. Project title:** Strengthening capacities in the use of geospatial information for improved resilience in Asia-Pacific and Africa

**2. Project description:**

In July 2021, UNOSAT and the Norwegian Agency for Development Cooperation (NORAD) signed a new cooperation framework to sustain and expand their longstanding efforts to strengthen capacities in the use of geospatial information technologies for improved resilience in the Asia-Pacific and Africa.

This 3 year-long project builds on previous experiences and aims to further enhance capacities by leveraging technological advances and innovation and providing integrated geospatial solutions for improved decision making in the fields of Disaster Risk Reduction, Climate Resilience, Environmental Preservation & Food Security in the eight target countries: Vanuatu, Fiji, Solomon Islands, Bangladesh, Bhutan, Lao PDR, Nigeria, and Uganda.

An innovative user-centred capacity development approach will be applied for the implementation of this project, and it is comprised of:

- **Technical Training:** Through the implementation of this project in each target country, UNOSAT will offer a total of three technical trainings custom-tailored to the country's needs, with focus on climate finance, geospatial information technology, and disaster risk management. The courses will be delivered to both executive managers and technical staff, through three main approaches: face-to-face, blended learning, and e-learning solutions.
- **Knowledge Platform & Community of Practice:** The project team will also implement a central Knowledge Platform for the project, this will serve as an integrated learning environment for all distance-learning solutions and the main meeting point of UNOSAT's community of practice, all aiming at sustaining the project outcomes and increasing its impact. The knowledge platform will also facilitate cross country knowledge and expertise sharing for tackling common challenges.
- **Access to Climate Finance:** There is a strong need for Pacific SIDS to finance their climate changes adaptations strategy; however, there is limited capacities in preparation of project proposals to climate funding. This project will integrate the Climate Finance Access Hub of the Commonwealth Secretariat (CCFAH) to use the established channels for increasing success in accessing climate funds. With the deployment of a climate finance advisor, the objective will be to facilitate improved access by partner countries to climate finance mechanisms to meet their priority needs in realizing sustainable development goals. As of April 2020, the Hub has helped countries to access USD 33,605,291 of climate finance, with USD 572,639,261 in the pipeline.
- **Technical Backstopping and In-country Expert:** Technical backstopping will be the backbone of the capacity development applicability and sustainability. From comprehensive risk analysis to modern web mapping systems and Operations Dashboards, various products will be developed to support informed decision making in partner countries. A minimum of eight backstopping services will be provided to each of the beneficiary countries, which can be considered as mini geospatial projects for improving or optimising existing operations. The in-country national expert will work on-site and hand-in-hand with the beneficiary ministry with technical support from the project team.
- **Decision Support Applications:** UNOSAT will develop in each country one smart web-based applications that can ingest data from available baseline datasets, satellite images, scientific models and generate meaningful insight to steer decision making. Complex data analytics will be carried out with automation scripts on UNOSAT cloud computing infrastructure, so analysts

*[Information provided on this form will be made publicly available unless otherwise agreed with the NAB Secretariat]*

do not need to perform repeated analysis, saving valuable resources and time. The results will be accessible to a range of national stakeholders through dedicated decision support platforms.

**3. Approval sought:**

Endorsement of the new project

**4. Implementing organisation:**

The United Nations Institute for Training and Research (UNITAR) is an autonomous body within the United Nations that was established in 1965 pursuant to a United Nations General Assembly resolution and is governed by a Board of Trustees, with the mission to develop the individual, institutional and organizational capacities of countries and other United Nations stakeholders through high quality learning solutions and related knowledge products and services to enhance decision-making and to support country-level action for overcoming global challenges.

UNOSAT is the United Nations Satellite Centre, hosted at UNITAR, with the mission to promote evidence-based decision making for peace, security and resilience using geospatial information technologies. UNOSAT provides the UN funds, programmes and specialized agencies with satellite analysis, training, and capacity development, at their request. UNOSAT also supports the UN Member States with satellite imagery analysis over their respective territories and offers training and capacity development in the use of geospatial information technologies.

**5. Focal government agency:**

The Ministry of Climate Change of Vanuatu is responsible for activities in relation to meteorological services, geo-hazards, energy, environment, and national disaster management, including general administration matters. The Ministry's role is to provide advice on these areas and to provide policy directions on all programs involving these matters.

**6. Other government / partner agencies:**

NAB on CCDRR, OGCI, MCCA, NDMO, VMGD, MoL, MALFFB, etc

**7. Project contact details:**

Einar Bjorgo  
Director, United Nations Satellite Centre (UNOSAT), United Nations Institute for Training and Research (UNITAR)

Address: 7 bis, Avenue de la Paix, CH-1202 Geneva 2, Switzerland

Email: [einar.bjorgo@unitar.org](mailto:einar.bjorgo@unitar.org)

Tel.: 0041 076 691 01 06

**8. Location:**

Vanuatu

**9. Duration:**

From the date of the last signature on the MoU between UNITAR and Ministry of Climate Change representing the Government of Vanuatu - To July 2024

<b>10. Theme(s):</b> <input checked="" type="checkbox"/> Mitigation <input checked="" type="checkbox"/> Adaptation <input checked="" type="checkbox"/> Cross cutting <input checked="" type="checkbox"/> DRR / DRM	<b>11. Climate/DRR relevancy (% of budget)</b> <input checked="" type="checkbox"/> High (≥80%) <input type="checkbox"/> Medium (≥50%) <input type="checkbox"/> Low (≥25%) <input type="checkbox"/> Marginal (≥5%)
<b>12. Sector(s) by ministry:</b> <input checked="" type="checkbox"/> Agriculture, livestock, forestry, fisheries and biosecurity <input checked="" type="checkbox"/> Lands and natural resources (geology, mines, water) <input checked="" type="checkbox"/> Climate change adaptation, meteorology, geo-hazards, environment, energy and disaster management <input type="checkbox"/> Education and training <input checked="" type="checkbox"/> Finance and economic management <input type="checkbox"/> Foreign affairs, international cooperation and external trade <input checked="" type="checkbox"/> Health <input checked="" type="checkbox"/> Infrastructure and public utilities <input type="checkbox"/> Internal affairs (custom and culture, labour and employment services) <input type="checkbox"/> Justice and community services <input type="checkbox"/> Trade, tourism, industry and commerce <input type="checkbox"/> Youth and sports development	<b>13. Scope:</b> <input checked="" type="checkbox"/> Regional <input checked="" type="checkbox"/> National <input type="checkbox"/> Provincial <input type="checkbox"/> Community
	<b>14. Number of people impacted/affected:</b>  Whole population of Vanuatu  <b>15. Project Type:</b> <input checked="" type="checkbox"/> Capacity building <input checked="" type="checkbox"/> Community awareness <input checked="" type="checkbox"/> Disaster response <input type="checkbox"/> Field implementation <input type="checkbox"/> Formal education program <input type="checkbox"/> Funding - small grants <input type="checkbox"/> Informal training courses <input checked="" type="checkbox"/> Knowledge communication <input type="checkbox"/> Pilot / trial / demonstration Project <input checked="" type="checkbox"/> Planning and governance <input type="checkbox"/> Policy formulation and integration <input type="checkbox"/> Policy support <input type="checkbox"/> Research (feasibility study etc.) <input checked="" type="checkbox"/> Other

**16. Project rationale:**

The project intends to develop sustainable capacities, and implement adhoc and tailored geospatial solutions. These can help to improve existing policy and decision-making processes to solve priority issues in the fields of Disaster Risk Reduction, Climate Resilience, or Environmental Preservation & Food Security in Vanuatu.

**17. Alignment with the Agenda 2030 and SDGs:**

While geographic information is by nature crosscutting contributing in consequence to work towards most of the SDGs, the project will focus on applications that are related to the following goals in particular:

- SDG2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
- SDG9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation SDG11 Make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG13: Strengthening resilience to climate-related hazards and natural disasters by promoting adequate siting, land-use policies and emergency plans;
- SDG 15 Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

**18. Current status and implementing plans:**

UNOSAT will lead the implementation of the project with the support of the Government of Vanuatu. The baseline independent evaluation and scoping activities are being conducted and expected to be completed by the end of May 2022.

#### **19. Potential overlaps / duplication to be resolved:**

UNOSAT has implemented the IPP CommonSensing project in Vanuatu for the past few years in conjunction with the focal Ministry and international consortium. Its outputs such as technical tools and data will be incorporated into the solution to be designed and developed under a new project framework.

#### **20. Gender considerations:**

Although it is widely recognized that women's empowerment and participation is essential for effective sustainable development and climate resilience, tremendous gaps exist that hinder progress. This is a challenge that must be overcome as climate and disaster vulnerability are closely linked with gender equality, given that women are more often the victims of natural disaster than men. Therefore, mainstreaming gender considerations into the entire disaster cycle (prevention, preparedness, and recovery) and education programmes ought to be prioritized in project designs to reduce the impacts of disasters.

UNOSAT has strived for high levels of participation by female beneficiaries through a balanced ratio in trainings, though this was not always possible. As technical fields such as those that involve GIT, tend to be male dominated. Regarding gender parity in its capacity development activities the last years, UNOSAT managed to achieve a 50-50 gender composition in the overall number of training participants in 2019, despite regional differences (significant female and male majority in Asia and Africa, respectively). Considering the gaps in the representation of women, meeting this target represents not only an achievement in itself but also a considerable improvement vis-à-vis a 34.5% female participation in 2018 and 26% in 2017.

Moving forward, UNOSAT will strive to reduce regional disparities in female participation, by continuing to highlight the importance of an even number of female and male participants. This will be coupled with special awareness raising towards female government officials and students on the benefits of geo-spatial information technologies. Beyond promoting gender-balanced participation in our activities, we are keen to ensure an inclusive and enabling environment. As for example in implementing objective assessments, in order to better evaluate the performance of participants, as women tend to underestimate themselves in self-assessments.

Finally, in accordance with the UN System-Wide Action Plan for Gender Equality and the Empowerment of Women (UN SWAP) and the UNITAR Gender Equality and Empowerment of Women Policy, UNITAR assigns importance to gender equality and will strive to incorporate gender and human rights considerations in its evaluative undertakings.

#### **21. Monitoring, reporting and evaluation:**

Project Monitoring will be ensured by UNOSAT with a dedicated team member responsible for setting up the monitoring framework and the procedures to ensure data are collected throughout the project life, as well as analysing the information to make recommendations for further improvements.

Given the strategic importance of the project and its size, a provision has been made to allow for an independent evaluation that will comprise a baseline review, a mid-line evaluation, and a final review. Besides the independent evaluation, a decentralized evaluation – which is a self-assessment conducted by UNOSAT – will be ensured. While not considered to be an in-depth evaluation, it will contain some degree of evaluative thinking. While self-evaluation has similarities with the monitoring function and is often integrated into narrative reporting, the assessment exercise should seek to ask and respond to key evaluation questions and include critical analysis and reflection based on the data collected.

Results from the monitoring and evaluation of the project will be communicated to beneficiary partner institutions in the form of a project completion report which will record findings, conclusions, recommendations and lessons to be learned.

Moreover, in conjunction with the outreach and communication functions, the programme will produce one impact story per country/region and per year.

## **22. Sustainability measures:**

In order to ensure a sustainable impact, UNOSAT seeks to integrate an exit strategy into the capacity development activities from the start by embedding sustainability elements in the vast majority of the work packages. That includes for example:

- Training on relevant thematic using local or national satellite imagery dedicated to the specific needs and priorities of the beneficiaries;
- A permanent communication line thanks to the presence in country;
- Tools and solutions developed will be jointly designed with beneficiary countries so it fit into their organisational structure, strategies, plan of actions and budgets;.
- The awareness raising events are targeting decision makers who are the main beneficiaries;
- The knowledge platform that will be maintained beyond the project.

All these measures are intended to reinforce the added value of the solutions provided to ensure full ownership.

Another element in the exit strategy is to do a training of trainers (ToT) towards the end of the project so that they can further build the capacity and national and sub-national level. This training will in particular focus on training of female trainers in order for them to further inspire more females to develop technical skills in geo-spatial information for disaster risk reduction.

## **23. Supporting documents**

Project Brief is attached as Annex 1 below.

## **24. Director of Lead Government Agency**

*I certify I have checked the project profile, and any other supporting information for screening this project. I am satisfied that this project proposal is ready for presentation for approval.*

**Name**

**Signature**

**Date**

## **25. DSPPAC Sectoral Specialist sign off**

*I certify I have checked the project profile, and any other supporting information for screening this project. I am satisfied that this project proposal is ready for presentation for approval.*

**Name**

**Signature**

**Date**

## **26. Director General's Certification**

*I certify that I have checked the project profile, and any other supporting information for screening this project. I am satisfied that this project proposal is ready for presentation for approval. I understand that no Government funding will be released for the project until the project has been approved by the appropriate government authorities, any additional government contribution has been appropriated, the approved donor funding has been released and a detailed project income and expenditure form has been submitted.*

**Name**

**Signature**

**Date**

## **Annex 1. Project Brief**

*[Information provided on this form will be made publicly available unless otherwise agreed with the NAB Secretariat]*



# STRENGTHENING CAPACITIES IN THE USE OF GEOSPATIAL INFORMATION FOR IMPROVED RESILIENCE

## IN ASIA-PACIFIC AND AFRICA

In July 2021, UNOSAT and the Norwegian Agency for Development Cooperation (NORAD) signed a new cooperation framework to sustain and expand their longstanding efforts to strengthen capacities in the use of geospatial information technologies for improved resilience in the Asia-Pacific and Africa.

This 3 year-long project builds on previous experiences and aims to further enhance capacities by leveraging technological advances and innovation and providing integrated geospatial solutions for improved decision making in the fields of Disaster Risk Reduction, Climate Resilience, Environmental Preservation & Food Security in the eight target countries: Bangladesh, Bhutan, Fiji, Lao PDR, Nigeria, Solomon Islands, Uganda, and Vanuatu.



### Project Background

Since 2011, with support from the Norwegian Ministry of Foreign Affairs and later the Norwegian Agency for Development Cooperation (NORAD), UNOSAT has been enhancing capacities of different national and regional stakeholders in Southeast Asia and the East Africa region.

While the previous projects were successful in strengthening capacities and increasing awareness of government stakeholders in the use of geospatial technology applications for evidence-based decision making, government beneficiaries have expressed the further need for having more long-term in-country capacity development activities. Also, with the use of new technologies such as machine learning, big-data analytics and the launch of new earth observation satellites it is very important that stakeholders in all of the target countries can make the best use of these technologies to support evidence-based decision making.

### ABOUT US

UNOSAT is the United Nations Satellite Centre. It is hosted at the United Nations Institute for Training and Research (UNITAR), with the mission to promote evidence-based decision making for peace, security and resilience using geospatial information technologies. UNOSAT provides the United Nations funds, programmes and specialized agencies with satellite analysis, training and capacity development, at their request.

UNOSAT also supports the UN Member States with satellite imagery analysis over their respective territories, and provide training and capacity development in the use of geospatial information technologies. Thanks to their long-standing partnership UNOSAT also benefits from the state-of-the-art computing facilities of the European Organization for Nuclear Research (CERN) from satellite image processing, cutting edge application development to cloud computing.

United Nations Satellite Centre (UNOSAT)  
United Nations Institute for Training and Research (UNITAR)  
7 bis, Avenue de la Paix, CH-1202 Geneva 2, Switzerland  
unosat@unitar.org | www.unitar.org/unosat

Implemented by:



Funded by:



## PROJECT SERVICES & OFFERINGS

The project intends to develop **sustainable capacities, and implement ad-hoc and tailored geospatial solutions**. These can help to improve existing policy and decision-making processes to solve priority issues in the fields of Disaster Risk Reduction, Climate Resilience, or Environmental Preservation & Food Security in the eight countries.

Partnership with the governments is crucial to the success of the project. UNOSAT aims to develop innovative capacity development solutions and geospatial services by integrating data, technology, knowledge, and people - custom-tailored to the country needs.

Note: In regard to the Pacific countries, the developed CommonSensing Platform and data cubes will be incorporated into the technical solution as main components.



### Technical Trainings



Through the implementation of this project in each target country, UNOSAT will offer a total of three technical trainings custom-tailored to the country's needs, with focus on climate finance, geospatial information technology, and disaster risk management. The courses will be delivered to both executive managers and technical staff, through three main approaches: face-to-face, blended learning, and e-learning solutions.

The project team will also implement a central **Knowledge Platform** for the project, this will serve as an integrated learning environment for all distance-learning solutions and the main meeting point of UNOSAT's community of practice, all aiming at sustaining the project outcomes and increasing its impact. The knowledge platform will also facilitate **cross country knowledge and expertise sharing** for tackling common challenges.

### Knowledge Platform & Community of Practice



### Access to Climate Finance



There is a strong need for Pacific SIDS to finance their climate changes adaptations strategy; however, their is limited capacities in preparation of project proposals to climate funding. This project will integrate the Climate Finance Access Hub of the Commonwealth Secretariat (CCFAH) to use the established channels for increasing success in accessing climate funds. With the deployment of a climate finance advisor, the objective will be to facilitate improved access by partner countries to climate finance mechanisms to meet their priority needs in realizing sustainable development goals. As of April 2020, the Hub has helped countries to access USD 33,605,291 of climate finance, with USD 572,639,261 in the pipeline.

Technical backstopping will be the backbone of the capacity development applicability and sustainability. From comprehensive risk analysis to modern web mapping systems and Operations Dashboards, **various products will be developed to support informed decision making** in partner countries. A minimum of eight **backstopping services** will be provided to each of the beneficiary countries, which can be considered as mini **geospatial projects for improving or optimising existing operations**. The in-country national expert will work on-site and **hand-in-hand** with the beneficiary ministry with technical support from the project team.

### Technical Backstopping & In-country Expert



### Decision Support Applications



UNOSAT will develop in each country one **smart web-based applications** that can ingest data from available baseline datasets, satellite images, scientific models and generate meaningful insight to steer decision making. **Complex data analytics** will be carried out with automation scripts on UNOSAT cloud computing infrastructure, so analysts do not need to perform repeated analysis, saving valuable resources and time. The results will be accessible to a range of national stakeholders through **dedicated decision support platforms**.

Check some examples here: <https://unosat-geodrr.cern.ch/portal/apps/sites/#/portfolio/>

United Nations Satellite Centre (UNOSAT)  
United Nations Institute for Training and Research (UNITAR)  
7 bis, Avenue de la Paix, CH-1202 Geneva 2, Switzerland  
[unosat@unitar.org](mailto:unosat@unitar.org) | [www.unitar.org/unosat](http://www.unitar.org/unosat)

Implemented by:



Funded by:





## SERVICE DELIVERY MECHANISM

Partnership with beneficiary countries is a cornerstone of the project and the service delivery largely evolves around the integration and ownership development of the focal point ministry. UNOSAT experts will be developing learning and geospatial solutions for the ministries' use, strategic guidance will need to come from the the ministries focal points to ensure the solutions are aligned with their needs. All the services will be aligned with the needs of the focal point ministry, building on the legacy of the CommonSensing project.

### UNOSAT Responsibilities

- Deploy in-country expert
- Organize training events (provide experts and support logistics)
- Data management & hosting, cloud-computing processing
- Deploy a Climate Finance Advisor
- Provide learning solutions and tailored spatial decision support applications supported by the UNOSAT project team comprised of:
  - Capacity Development Experts
  - GIT Experts
  - Thematic Experts Disaster Risk Management, Urban Planning, Environmental Preservation, Climate Change Adaption, Hydrology
  - WebGIS Developers
  - GIS/RS Analysts
  - UX/UI Designers
  - Full-stack Developers

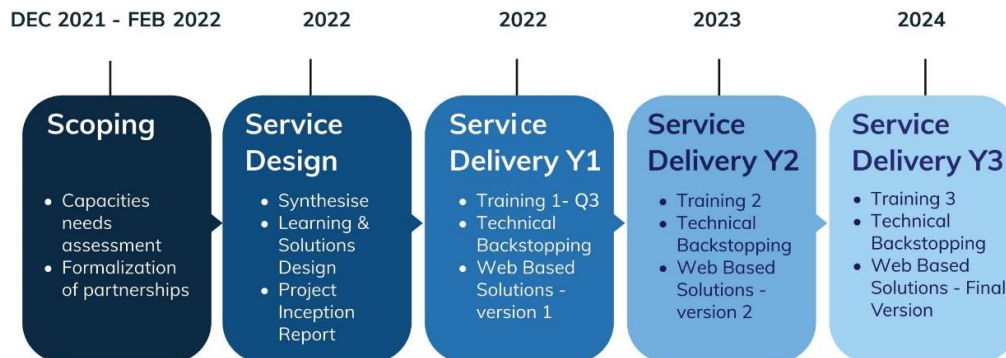


### Partner country role

- Advise on the Capacities and Needs Assessment
- Provide advice to the design of trainings and decision support applications
- Guide training participants selection
- Host and support the organization of training events
- Test the decision support applications and provide feedback
- Host UNOSAT in-country expert (if-applicable)
- Act as focal point to submit technical backstopping requests
- Integrate fully functioning decision support applications in the relevant standard operating procedures and policy mechanism

## PROJECT TIMELINE

UNOSAT has designed the timeline of the services delivery in a way that the different trainings and software/application updates will be offered to the beneficiaries every year in a staggered manner to ensure proper uptake. At the beginning of the project, together with the ministry focal point in the country UNOSAT will run a re-scoping exercise. Based on the outcome, an inception report for each country will be shared with the relevant national stakeholders detailing implementation plan with timeline.



United Nations Satellite Centre (UNOSAT)  
United Nations Institute for Training and Research (UNITAR)  
7 bis, Avenue de la Paix, CH-1202 Geneva 2, Switzerland  
unosat@unitar.org | www.unitar.org/unosat

Implemented by:









Funded by:





## VALUE PROPOSITION

UNOSAT has 20 years of expertise in the operational applications of geospatial technology and satellite imagery analysis services, including existing homegrown CERN cloud data infrastructure as well as in-house multifaceted technical expertise in disaster risk modelling, social sciences and frontier technologies like artificial intelligence and big-data analytics. Its practical experience in the design, development and delivery of innovative geospatial services and learning solutions to inform policies, planning and decision making at country level will certainly enable us to make best use of all our resources to develop all project solutions according to specific users' needs in each target country. Below is the estimated monetary value of the activities UNOSAT will provide to each country in the framework of the project:

Service	Expertise	Other resources	Estimated Value (USD)*
 <b>Technical Trainings</b>	<ul style="list-style-type: none"> <li>Capacity Development Expert</li> <li>GIT Experts</li> <li>Thematic Experts Disaster Risk Management, Natural Hazards Specialist</li> </ul>	<ul style="list-style-type: none"> <li>Training Delivery</li> <li>Resource Person Travel</li> <li>Training Logistics</li> </ul>	<b>120k</b>
 <b>Geospatial Decision Support Application</b>	<ul style="list-style-type: none"> <li>WebGIS developer</li> <li>GIS/RS Analyst</li> <li>UX/UI Designer,</li> <li>Full-stack developer</li> </ul>	<ul style="list-style-type: none"> <li>Cloud Computing</li> <li>Data Server</li> <li>System updating and maintenance</li> <li>Software license</li> </ul>	<b>250k</b>
 <b>In-country Expert</b>	<ul style="list-style-type: none"> <li>Geospatial thematic expert based on country requirements</li> </ul>	<ul style="list-style-type: none"> <li>GIS/RS Software License</li> </ul>	<b>180k</b>
 <b>Technical Backstopping</b>	<ul style="list-style-type: none"> <li>GIT Experts</li> <li>Thematic Experts Disaster Risk Management, Natural Hazards Specialist</li> </ul>	<ul style="list-style-type: none"> <li>GIS/RS Software License</li> <li>Satellite Imagery</li> </ul>	<b>100k</b>
 <b>Access to Climate Finance</b>	<ul style="list-style-type: none"> <li>Climate Finance Advisor</li> </ul>	<ul style="list-style-type: none"> <li>Support from CCFAH</li> </ul>	<b>200k</b>
 <b>Knowledge Hub &amp; Community of Practice</b>	<ul style="list-style-type: none"> <li>Capacity Development Expert</li> <li>Full-stack developer</li> </ul>	<ul style="list-style-type: none"> <li>Cloud Computing</li> <li>Data Server</li> <li>System updating and maintenance</li> <li>Software license</li> </ul>	<b>100k</b>

While the total estimated monetary value of the services offered to a country is approximately 950,000 USD, there is also a prospect of generating additional value in each country from the technical skills developed by the trained participants and decision-support applications implemented during the project scope. For example, capacities generated from training events and the operational applications used at country level can help to reduce human and economic losses caused by major disaster events and to achieve improved resilience. Therefore, the long-term impact may be considered of higher value when compared against the value of the services.

By integrating data, knowledge, people, and technology, together we can seek for long-term sustainable solutions for pressing issues in the fields of Disaster Risk Reduction, Climate Resilience, Environmental Preservation & Food Security.

United Nations Satellite Centre (UNOSAT)  
United Nations Institute for Training and Research (UNITAR)  
7 bis, Avenue de la Paix, CH-1202 Geneva 2, Switzerland  
unosat@unitar.org | www.unitar.org/unosat

Implemented by:



Funded by:

