

Project Evaluation Series

08/2022

Evaluation of the project “System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)”

Project code: GCP/GLO/537/NOR

Follow-up report

Evaluation of the project "System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)" – Follow-up report 09/2023

Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	Impact of, or changes resulted from taken actions
<p>Recommendation 1. The Project team is encouraged to build on its successful partnership approach and systematically apply it to future technical development, particularly capacity building. Secondments from partners to the SEPAL team are one way to operate accordingly. <i>Priority: very high: next 3 months</i></p>	Partially accepted	<p>We fully accept the conclusion that partnerships are key to expanding the use and functionality of the SEPAL platform. A proven model to expand partnerships and technical relationships in FAO is via letters of agreement (LOAs). We will continue to work through LOAs to implement this recommendation. However, an FAO modality for formal secondments to the SEPAL team is not apparent to the SEPAL project team. Besides LOAs, in-kind contributions to the platform are another common modality to leverage and expand partnerships. LOAs and in-kind contributions with key technical and implementation partners to both improve technical functionality of the platform and support capacity building efforts in-country will be carried out. These activities are already budgeted in the existing SEPAL workplan.</p>	<p>An effort to coordinate more closely with partners under the banner of the Global Forests Observation Initiative (GFOI) is being implemented. This is especially evident in the collaboration with the US SilvaCarbon program in 2023. SEPAL has been featured in all joint US SilvaCarbon workshops in 2023 and will continue through the end of the project.</p>	Good	<p>The impact of this collaboration is a streamlined, coordinated capacity building effort that is much more in-line with GFOI principles and SEPAL workplan goals.</p>
<p>Recommendation 2. The project team should address the following emerging needs in Phase II:</p> <ul style="list-style-type: none"> i. Develop a "plan B" to address options to mitigate SEPAL's dependency on Google Earth Engine. ii. Provide more documentation, such as a user manual, tutorials, or guidance, written and videos, to better understand and work with the available 	Accepted	<p><u>Plan B</u> A 'Plan B' is in place to establish connections to existing space agency data stores and processing hubs to both retrieve and, where possible, process data. However, this would significantly decrease the processing speed of SEPAL and significantly increase the cost of running the platform. We will continue to monitor potential 'Plan B' solutions as technology outside of Google Earth Engine is also evolving quickly (data cubes, other computer options, etc).</p>	<p><u>Plan B:</u> Plan B solutions are in place. The environment for cloud-based RS data processing is quickly evolving, however, so additional contingency plans are constantly being evaluated. This will be an ongoing task throughout the life of the project. <u>Documentation:</u> Documentation is under constant development. Ability to translate into any language is in place. The introduction to and use of the SEPAL</p>	Good	<p>A revamped, modern, streamlined, and consistent visual identity is now associated with SEPAL. Regular social media presence has been established. Overall much more professional look and feel of the</p>

Evaluation of the project "System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)" – Follow-up report				09/2023	
Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	Impact of, or changes resulted from taken actions
<p>functions (e.g., algorithms), particularly new ones.</p> <p>iii. Significantly upscale SEPAL's outreach through:</p> <ul style="list-style-type: none"> • Awareness-raising using, for example, i) all relevant FAO Projects, ii) all Forest Resource Assessments, and iii) identifying and serving countries in need for SDG 15.1.1. reporting, • Capacity building, focusing on a training of trainers' model in main Project countries and more systematic and formalized communication between SEPAL and its partners, for example, through monthly meetings <p>iv. Consider the demand for higher resolution data and the possibility to modify scripts</p> <p><i>Priority: high: next 3 to 6 months</i></p>		<p><u>Documentation</u> Documentation is currently developing at a rapid pace. Plans are already in place for translation into any language and this will be rolled-out in the coming year. We will strive to keep documentation up to date and functional for our users with emphasis placed on familiarizing workshop participants and users about the existence and use of the documentation.</p> <p><u>Upscale SEPAL's outreach:</u></p> <ol style="list-style-type: none"> i. Strengthen SEPAL graphic identity in all communication materials and web/social media presence. ii. Develop and disseminate a promotional video for SEPAL. iii. Showcase impactful applications of SEPAL at country level through people-centered stories. Collect success stories in collaboration with national partners, and produce outreach materials (web stories, videos, factsheets, animated infographics, gif, etc.). iv. Prepare and disseminate Annual Interactive Reports of SEPAL impact/results. v. Work closely with FAO's Forest Resource Assessment (FRA) to identify country needs for 15.1.1. reporting (FRA coordinator is the SEPAL Phase II project LTO) vi. Starting immediately, a monthly calendar of SEPAL events will be shared with SEPAL Phase II partners. 	<p>documentation is part of all capacity building workshops.</p> <p><u>Outreach:</u></p> <ol style="list-style-type: none"> i. The visual identity of SEPAL was revamped and presence in web and social media increased. ii. Promotional video was produced. But also a new SEPAL website, serving also as repository of all outreach activities and products. FAO's SEPAL homepage. iii. The SEPAL website also contains a section How we work around the world (homepage) and Our activities Our Activities (fao.org) containing main web stories of SEPAL application in the field. We also produced the case study of Uganda Integration of SEPAL into Uganda's National Forest Monitoring System (fao.org) that could be replicated to other regions (LAC and Asia) iv. Under development and will be incorporated in the next semi annual report. v. To be done. vi. Strong coordination through the GFOI Leads. 		<p>program and platform exists.</p>

Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	Impact of, or changes resulted from taken actions
		<u>High Resolution Data</u> High res data is already available in SEPAL via the NICFI/Planet data agreement. We will make sure these data are easily accessible and processable by SEPAL users. We will also work with SEPAL users with custom high-res datasets to incorporate and process them when the need arises thereby building needs-based technical capacity that can continue to be used in the future.			
Recommendation 3. The Project team should address the two partially achieved outputs: developing SEPAL documentation in French and Spanish and systematically applying monitoring and evaluation of capacity-building events Capacity building M&E should use pre- and post-course assessments such as initial participant needs assessments and an evaluation questionnaire/survey after the course. For longer events beyond one day, the use of a complementary evaluation questionnaire/survey 6 months after the event could be applied to assess the use of knowledge/application of SEPAL. <i>Priority: very high: next 3 months</i>	Accepted	<u>Documentation</u> Documentation is currently developing at a rapid pace. Plans are already in place for translation into any language and this will be rolled-out in the coming year. We will strive to keep documentation up to date and functional for our users with emphasis placed on familiarizing workshop participants and users about the existence and use of the documentation. <u>Capacity building M&E</u> Apply Kirkpatrick model for training evaluation using questionnaire/survey tools: level 1 (reaction), level 2 (learning) immediately after the capacity-building event; and for events beyond one day and level 3 (behavior) six months after the event. Apply pre-work questionnaire to understand the knowledge and practices of users before for events beyond 1 day, and/or interactive exercises during the webinars (e.g. polls) for one-day events.	<u>Documentation:</u> Documentation in multiple languages is enabled. Proofreading and copy editing is underway. <u>Capacity building M&E:</u> For the online facilitated course, we have produced a satisfaction questioner (level 1 reaction). Report will be ready on 29/30 June (once course officially closes).	Good	Documentation is more useful and we are now able to easily translate into any language required.

Evaluation of the project "System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)" – Follow-up report					09/2023
Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			Impact of, or changes resulted from taken actions
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	
<p>Recommendation 4. The project team should consult its partners to assess which partners would welcome a formalization of the partnership, for example, through letters of agreement or memoranda of understanding. Besides, project reporting should be more results-based using both quantitative and qualitative indicators for the new logframe of Phase II. The project team should also communicate its scheduled events to the donor before the events rather than only reporting about the event ex-post. <i>Priority: high: next 3 to 6 months.</i></p>	Accepted	<p><u>Formalizing partnerships</u> The SEPAL team will work through GFOI to assess which partners would be most willing and appropriate to sign letters of agreement or memoranda of understanding. In the cases where national governments would also be interested to formalize working arrangements for the platform, a standard letter of agreement will be drafted and suitable for use. <u>Project reporting:</u> Project reporting will immediately include metrics and reports on impact and results at all geographic levels. A set of indicators have been created that can be used for this purpose against the outputs/outcomes of the Phase II workplan. <u>Event communicating:</u> Starting immediately, a monthly calendar of SEPAL events will be shared with project donors ahead of time for interested parties to be alerted and potentially react/participate in events at their discretion.</p>	<p><u>Formalizing partnerships:</u> SEPAL is working closer than ever with key capacity building partners USGS SilvaCarbon and is coordinating closely through the GFOI Leads and Components. <u>Project reporting:</u> More stories of impact are being recorded for inclusion in the semi-annual and annual SEPAL project reports. Metrics are still being developed, however. <u>Event communicating:</u> A monthly calendar has not been created but events are regularly passed through the GFOI Leads team in order to maintain communication and collaboration with partners.</p>	Good	More compelling impact of the project is documentable and can be communicated through semi-annual and annual reporting.
<p>Recommendation 5. For SEPAL Phase II, the project team should identify and develop concept notes for specific modules outside the NICFI funding, which could be further negotiated and modified depending on potential donors' priorities. Engage potential donors</p>	Accepted	<p>The SEPAL team will implement this approach as part of their effort to obtain the outstanding, foreseen SEPAL Phase II project budget of 5 million USD. Already under development are modules suitable for agricultural monitoring, fire monitoring, emergency monitoring, and near-real time alerts. These modules will continue to be developed and applications sought to which donors can contribute.</p>	<p>This has been completed. Contributions from the Government of the United Kingdom of Great Britain and Northern Ireland as part of the Aim4Forests project have been earmarked for SEPAL and fulfill this requirement.</p>	Good	

Evaluation of the project "System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)" – Follow-up report					09/2023
Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	Impact of, or changes resulted from taken actions
for resource mobilization accordingly. <i>Priority: high: next 3 to 6 months</i>					
Recommendation 6. While many risks are outside the direct control of SEPAL, the project team should embark on a risk mitigation strategy, combined with an exit strategy for SEPAL to systematically plan for SEPAL's use once the Norwegian funding has ended. <i>Priority: high: next 3 to 6 months</i>	Accepted	The SEPAL team has been planning and will continue to plan for a continuation strategy beyond the funding of the SEPAL Phase II project. This will include negotiations with FAO corporate to incorporate SEPAL into existing infrastructure, seek longer-term regular-program support for the platform, continue to seek additional donor support, explore models that could involve partnering with external partners to host the platform.	This activity will be ongoing throughout the remaining two years of the project as the environment for platform continuation is ever-evolving. The addition of the Government of the United Kingdom of Great Britain and Northern Ireland funding offers the potential to keep the platform running beyond the foreseen SEPAL Phase II project end.	Advancing	
Recommendation 7. Continue the parallel development of AWS and GEE solutions, both to cater to users that need the additional flexibility of AWS-based solutions and promote sustainability and reduce risk if the GEE platform becomes unavailable ("Plan B" scenario). <i>Priority: high: next 3 to 6 months</i>	Accepted	The SEPAL team has done this in the past and will continue to develop in this manner for the life of the SEPAL Phase II project.	This is ongoing.	Good	
Recommendation 8. Work with the GEE team to improve authentication and related technical barriers to data sharing within the SEPAL platform; GEE integration should be entirely transparent to an end-user if it is the preferred mode of computation. <i>Priority: high: next 3 to 6 months</i>	Accepted	The SEPAL team is in constant contact with GEE development team. We will work with them to improve authentication and improve the technical functionality of GEE and Google Cloud Platform to enable and enhance the functionality of SEPAL.	This is ongoing. A member of the GEE team will be assigned to the SEPAL team in order to assist SEPAL make the most use of GEE and Google structures.	Advancing	

Evaluation of the project "System for Earth Observation Data Access, Processing, and Analysis for Land Monitoring (SEPAL)" – Follow-up report					09/2023
Evaluation Recommendation	Management response Accepted, Partially accepted or Rejected	Management plan			
		Actions to be taken, and/or comments about partial acceptance or rejection	Description of actions actually taken, or reasons for actions not taken	MAR Score	Impact of, or changes resulted from taken actions
<p>Recommendation 9. Dedicate a resource to documentation for end-users, including curated tutorials and guides (also consider a wiki framework for storing help pages, all having the same structure). Related to this, example scripts should be subjected to regular testing to ensure errors do not emerge over time due to updates of the SEPAL platform. Implement a video platform storing help videos. <i>Priority: high: next 3 to 6 months</i></p>	Accepted	<p>Docs.sepal.io has been established for SEPAL documentation. The SEPAL team will dedicate effort to maintaining this site, translating the information into multiple languages, and generally trying to make the documentation as useful as possible. The upcoming MOOCs for SEPAL will also serve as a place where documentation and examples can be accessed and studied by SEPAL users.</p>	<p>First edition of the online facilitated course finalized on May and was left in asynchronized mode until end of June. A self-paced version of the course will be available (with all materials and webinars produced) by mid-July.</p>	Good	
<p>Recommendation 10. Increase the efficiency of some of the developed algorithms, according to the focus group's suggestions. <i>Priority: high: next 3 to 6 months</i></p>	Accepted	<p>The SEPAL team is constantly trying to improve the efficiency of algorithms running on the platform consistent with the latest peer-reviewed literature and documented algorithms. We will take the focus group suggestions and make sure we can meet the expectations put forth by this survey.</p>	<p>This is an ongoing effort. Many processes and algorithms in SEPAL have already become easier to implement and more efficient to run. However, this is an ever-changing environment and not a static, one-time only task.</p>	Advancing	

Office of Evaluation
E-mail: evaluation@fao.org
Web address: www.fao.org/evaluation

Food and Agriculture Organization of the United Nations
Rome, Italy