

# TEEBAgriFood Uganda, Results and Final Workshop

Tuesday 14<sup>th</sup> December 2021, EAT 10AM – 12PM

Virtual Platform

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## I. Key Summary

- The TEEBAgriFood Uganda Final Workshop was held virtually on the 14<sup>th</sup> of December 2021. The overall objectives of the workshop were to present the final results obtained by the Nile Basin Initiative, gain feedback on the results, and to discuss their policy relevance with stakeholders from numerous Ugandan Ministries and sectors. Furthermore, the event discussed future scoping opportunities for the work if further funding for TEEBAgriFood Uganda becomes available.
- TEEBAgriFood is a comprehensive framework that enables food system decision-making to better integrate the material interactions between environment, economy, society, and health, and encompasses interactions from the farm to household consumption.
- In Uganda, the TEEBAgriFood application has assessed the competing impacts of urban and peri-urban agriculture upon conservation areas and their critical ecosystem services. The Mabamba Bay site, a Wetland of International Importance located 35km from Kampala, was selected after stakeholder consultation events. Eleven ecosystem services were valued and assessed against three scenarios, using geospatial analysis, market analysis, and benefits transfer methods.
- During the workshop, positive feedback was obtained reflecting on the relevance of the study results to the National Development Plan III, the current policy-making agenda and activities of the Ministry of Finance (MoFPED) and the Ministry of Water and Environment (MoWE), and the growing momentum for natural capital accounting in Uganda. The holistic and inclusive capitals-approach used in the TEEBAgriFood Uganda study was commended, and it’s applicability to the governance of the environmental and natural resources in Uganda was discussed. Recommendations from the stakeholders indicated that a broader scoping of the Mabamba Bay Wetland System ecosystem services could have been undertaken with more time, and output statistics and reporting from the study should reflect this limitation.
- Looking ahead, the final TEEBAgriFood Uganda study report and a policy brief will be developed and shared with all stakeholders involved in early 2022. Communications materials, such as a country factsheet and a video, will also be finalised and shared from the same period. The TEEB team will also begin engaging with funds and foundations to hopefully acquire funding for an extension to the TEEBAgriFood Uganda study.

## II. Opening Remarks and TEEB Overview

To access the full presentation, please visit:

<http://teebweb.org/our-work/agrifood/country-implementation/small-grant-projects/uganda-sgp/>.

1. Firstly, **Mr. William Speller** (UNEP TEEB) welcome the participants and presented an overview of the Economics of Ecosystems and Biodiversity (TEEB) global initiative<sup>1</sup>. The presentation contextualised the TEEB for Agriculture and Food programme with the recent UN Food Systems Summit agenda and Uganda’s commitments through the National Food Systems Transformation Pathway<sup>2</sup>. The current TEEBAgriFood project countries were discussed, and the TEEBAgriFood Evaluation Framework was reintroduced.
2. As specific to the TEEBAgriFood Uganda application<sup>3</sup>, **Mr. Speller** outlined the project milestones since it’s preparation from December 2020 and its kick-off in June 2021. The way in which the project scoping was developed through the stakeholder consultation events was discussed, with elaboration on the five initial policy scoping options and the final scoping for the assessment regarding urban and peri-urban agriculture and wetland restoration in the Mabamba Bay Wetland System<sup>4</sup>.
3. Finally, **Mr. Speller** introduced the workshop agenda and the stakeholders taking part in the panel discussion (Figure 1) following the presentation of results by the Nile Basin Initiative.



**Ms. Lucy Iyango**  
Assistant Commissioner  
Ministry of Water and  
Environment (MoWE)



**Dr. Sam Mugume**  
Principal Statistician  
Ministry of Finance,  
Planning, and Economic  
Development (MoFPED)



**MAKERERE UNIVERSITY**

**Dr. Patrick Byakagaba**  
Lecturer, Department of  
Environmental  
Management  
Makerere University



**Mr. John Diisi**  
GIS and Mapping  
Coordinator  
National Forestry Authority

Figure 1: TEEBAgriFood Uganda Final Workshop, Panel Participants

<sup>1</sup> TEEB for Agriculture and Food programme: [Link](#).

<sup>2</sup> Uganda National Food Systems Transformation Pathway: [Link](#).

<sup>3</sup> TEEBAgriFood Uganda application: [Link](#).

<sup>4</sup> Ramsar sites information service, Mabamba Bay Wetland System: [Link](#).

### III. TEEBAgriFood Uganda Results Presentation, Nile Basin Initiative

To access the full presentation, please visit:

<http://teebweb.org/our-work/agrifood/country-implementation/small-grant-projects/uganda-sqp/>.

4. **Mr. Eugene Muramira** (Nile Basin Initiative) firstly introduced the study “Scenario analysis based on the TEEBAgriFood Evaluation Framework of policies for urban and peri-urban agriculture and wetland restoration for the Mabamba Bay Wetland System in Uganda” and the geographies of the study site. The TEEBAgriFood Analytical Framework and the stakeholder engagements were outlined, and Mr. Muramira introduced the valuation methods employed in the study and the development of the three scenarios.
5. With regards to the results obtained, Mr. Muramira outlined and discussed the eleven ecosystem services and their values: water supply for domestic and livestock use; dry season and wetland edge farming; capture fisheries; fish breeding, spawning and nursery ground; dry season grazing and fodder; grass for mulching; sand mining; water purification; carbon sequestration; water transport; and ecotourism. The trade-offs under the different management scenarios were also elaborated on, with regards to the business-as-usual (BAU) scenario, the green optimistic scenario, and the grey pessimistic scenario. The interactions between the natural, human, social, and produced capital were also articulated for the Mabamba Bay Wetland System site.
6. Finally, **Mr. Muramira** discussed the key conclusions from the study regarding the current rate of wetland degradation at the site, the values of the ecosystem services generated, and their implication upon human and social capital. From this, the policy framework mainstreaming and further scoping opportunities were examined, as a result of the obtained study findings and the discussions with the local stakeholders highlighting knowledge, capacity, and operational gaps in wetland conservation. The following governmental interventions were also proposed:
  - i. Improve the road network in the area;
  - ii. Expand the electricity grid and improve the efficiency in the provision of power;
  - iii. Ensure improved access to land and land tenure security;
  - iv. Ensure improved access to quality agricultural inputs such as seeds, fertilisers, veterinary drugs, and agro-chemicals;
  - v. Improve agricultural marketing;
  - vi. Increase the effectiveness and efficiency of the agricultural extension system;
  - vii. Create and support the development of community-based organisations so that people can effectively and profitably participate in the supply chains of the various enterprises in the area;
  - viii. Encourage Climate Smart Agriculture and implement Organic Agriculture policy;
  - ix. Embrace new agricultural technologies such as hydroponics and greenhouse farming systems to control agricultural encroachment on wetlands; and,
  - x. Encourage sustainable farming practices, such as wetland aquaculture to provide an alternative source of livelihoods compatible with wetland conservation objectives.

## IV. Panel Discussion

7. **Ms Lucy Iyango** (Wetlands Management Department, Ministry of Water and Environment) first acknowledged the strong relevance of the study and findings with Uganda's Green Growth Strategy 2017/18-2030/31<sup>5</sup>. More broadly, this applies to urban and peri-urban agriculture by ensuring food security systems and contributing to urban development planning. However, from a policy and finance perspective, there should be a stronger pointer on regulating services. There are also growing employment opportunities in the Mabamba Bay area, as a consequence of the Green Growth Strategy as increased accessibility to the area through development projects. As such, the study should consider increasing population pressures and wider ecosystem pressures as opportunities emerge.
8. **Ms Iyango** further highlighted the strong synergy of the study with the National Development Plan III<sup>6</sup>, noting that the Ministry of Water and Environment is operating from a programmatic approach with sectors liaise to implement activities and achieve specific strategy. Ms Iyango finally requested for the figures to be turned into a policy brief as a means to push the findings forward, since it must be ensured for figures to be justified by policy implications.
9. **Dr. Sam Mugume** (Ministry of Finance, Planning, and Economic Development) firstly acknowledged the Ministry of Finance's main objectives – to ensure sound economic policies, to ensure the proper use of resources, increase government revenue, enable accountability, and other roles such as ensuring macroeconomic stability. The findings presented by the Nile Basin Initiative demonstrate most of these elements, such as the advising on economic policies, revenue, and informs on the valuation of natural capital and how to subsequently allocate resources.
10. Secondly, **Dr Mugume** highlighted the Ministry's involvement to spark economic growth for GDP and national growth to move towards a middle-income status, meanwhile ensuring to enable sustainable growth and reducing inequality. The findings presented by the Nile Basin Initiative contribute towards these goals by tying in the objectives of the National Development Plan III, the four capitals, and the analysis of budgets and plans. The conditions faced by the Ministry find that Uganda is investing more in produced capital, and less in operations and maintenance. This has great improvements towards human and social capital, however Nile Basin Initiative's results have demonstrated that increased investment in these areas have a high cost on the natural environment and natural capital. This is likely not unique for Uganda, and natural capital is not given its deserved priority. From this, Dr. Mugume asked where the turning point can be identified, to ensure system change. The valuation of wetland ecosystem services conducted by the Nile Basin Initiative is a strong first attempt, and is key for the Ministry of Finance to use the figures and inform policies which require change. Dr. Mugume further enquired whether the values found for Mabamba Bay can be extrapolated to other wetlands in the area, so a national average may be assessed.
11. Thirdly, **Dr Mugume** observed that law enforcement should form a stronger component of the policy recommendations to ensure that wetlands and its ecosystem services are protected. The study also posits that the development agenda should be framed holistically and harmonised, instead of applying and maintaining siloed approaches. Furthermore, the four capitals should be invested in concurrently with detailed reflections and interactions amongst one another. The

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<sup>5</sup> Uganda Green Growth Strategy, 2017/18 – 2030/31: [Link](#).

<sup>6</sup> Uganda National Development Plan III, 2020/21 – 2024/25: [Link](#).

different investments between the capitals taking place should also be modelled, such as the interactions between social and human capital with natural capital.

12. Finally, **Dr Mugume** added that the solution to manage the four capitals concurrently lies in inclusive green economic development, however this requires more scientific findings and figures. Although this approach is noted as an expensive investment in the short-term, the long-term green development benefits outweigh the costs and must be incorporated into environmental policies. There is also a need to engage the different administrative areas and work plans, from the sub-counties and districts to extrapolate outcomes. Meanwhile at the international level, there must be influence and alignment on natural resource management through law and enforcement. From this, the various and multi-scalar political entry points will be able to identify novel opportunities and trigger high investments in investing in natural capital and the green economy.
13. **Ms Iyango** added that Uganda has institutionalised Natural Capital Accounting, with a unit being developing and established in the Ugandan Bureau of Statistics. This is a foundation point that may be harnessed for further work in this thematic area.
14. **Mr Muramira** supported Dr Mugume's remarks, indicating that with more time available, the scenario building would be able to give further thought on the interactions between the four capitals and assessing the full capacity of the wetlands. The holistic TEEBAgriFood framework has enabled this initial inclusion in the assessment, with the identification of interactions and dependencies between the four capitals. This must also be recognised when building the development processes in Uganda, as to allocate the different resources to the four capitals without undermining one another.
15. **Dr. Patrick Byakagaba** (Makerere University) firstly noted the ecological concern of assessing the indirect uses and values of wetlands which have not been captured in NBI's findings, of which could be more important than the direct values assessed.
16. Secondly, **Dr. Byakagaba** remarked on the Ministry of Finance's interest in natural capital and how to truly implement this interest into practice through the reading of budgets and actions towards establishing a sustainable GDP. Furthermore, the Ministry should pay attention towards the flaws surrounding its current practices in developing natural capital accounts, as the current progress has prioritised the assessment of values and impacts of growth upon natural resources. An example of this application to the Mabamba Bay study would include the revenue generated from sand mining. The National Environmental Management Authority (NEMA) would typically require the peoples involved to produce environmental impact assessments and ensure degradation mitigation, however detrimental impacts continue to accrue. Guidelines must be established and enforced, and the true values of impacts must be quantified vis-à-vis other indirect benefits and uses of wetlands. Discussions with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) would similarly ensure that win-win scenarios for development and natural capital stocks are developed from the policy perspective. Uganda should similarly seek to join the Gaborone Declaration<sup>7</sup>, with the aim to better integrate natural capital into national accounting, building capacity and knowledge in the field of sustainable development, and building social capital.
17. **Ms Iyango** noted that although Uganda is not a formal member of the Gaborone Declaration due to requirements from the Ugandan cabinet, the country is actively involved in the activities taking place and she is the national focal point for the Declaration.

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<sup>7</sup> Gaborone Declaration for Sustainability in Africa: [Link](#).

18. **Mr. Speller** remarked that UNEP works closely with the Gaborone Declaration for Sustainability in Africa, in advancing natural capital accounting across its member countries. There is an active community of practice with a Telegram group, which colleagues may be added to if they reach out to Ms. Naomi Young (UNEP TEEB) or himself. The Ugandan Bureau of Statistics is also heavily active in the group.
19. Thirdly, **Dr. Byakagaba** remarked on the coordination required in Uganda's government to work towards the goals of sustainability. In particular, there is limited cross-scale institutional linkages in both the national framework and in ground-level contact. Institutions and agencies often "hide under mandates", and instead all sectors of the government should be involved when engaging in environmental and natural resource affairs. At the current time, this level of engagement is only assumed by the whole government during affairs related to resource allocation.
20. Finally, **Dr. Byakagaba** reflected on the NBI study and indicated that statistics from the evaluated ecosystem services should be shared as a proportion of the value of the Mabamba Bay Wetland, as one could be misled to think these are the only ecosystem services of value at the site. Such include the tourism and recreation services, of which were only carried out as a function of the Shoebill's touristic value. This will help provide a better picture, as the Ministry of Finance relies heavily on figures.
21. **Mr. John Diisi** (National Forestry Authority) firstly commended the valuation of Mabamba Bay ecosystem services and uses, and its replicability for representation of other wetlands in the same landscape. However, Mr. Diisi remarked that the extractive challenges at the site, such as sand mining, are resolutely contrary to the objectives of conservation and yet they take place in the Ramsar site in areas outside of the Kalangaro Central Forestry Reserve. The seasonal wetlands have suffered as a result, as a consequence to Mabamba's proximity to the markets and the blockage of water entering the wetlands. Many wetlands in the area are therefore being degraded, except for the areas gazetted in Forestry Reserves. As such, the presentation of ecosystem services and natural capital is important to informing the government on the use of wetlands, and the wider contributions of natural capital to the economic development of Uganda.
22. **Mr. Diisi** further remarked that parliamentary action is required to tackle the challenges of deforestation in Uganda taking place outside of gazetted and protected areas. This conversation must be highlighted to politicians and members of parliament, and the peoples at the forefront of environmental destruction. Uganda must be able to utilise wetlands sustainably, in a way that does not cause widespread degradation and destruction. For example, Mr. Diisi highlighted the sustainable practices of rice production in Tororo and fish farming along the edges of wetlands and Lake Victoria to supply the local markets.
23. Finally, **Mr. Diisi** remarked that the available environmental data and information is coordinated in a network led by the National Environmental Management Authority (NEMA), involving a number of experts from different institutions. InVEST is noted as an intricate suite of models and support via capacity building opportunities would be welcome. **Mr. Speller** added that if future extensions become available for the TEEBAgriFood Uganda project, there would be opportunities for capacity building and modelling activities. It is acknowledged that the limited timeframe of the current six-month TEEBAgriFood Uganda application has undercut the ability to adequately apply the InVEST modelling, acquire sufficient data resources, and to develop the modelling capacity which is required for the scope of the study.

24. **Ms. Marieke Sassen** (UNEP World Conservation Monitoring Centre) noted that the WCMC team has begun to produce a short document to discuss the possible spatial analysis contributions which may be applied for future applications to the TEEBAgriFood Uganda work. The data availability and scoping opportunities are considered, and the team has provided elaboration on the opportunities and drawbacks of the InVEST modelling capabilities. There is also discussion on other modelling tools which may be employed to assess regulating ecosystem services, water, the flows of agricultural produce, and the relationship between the Mabamba wetland and the Central Forestry Reserve. Overall, this document can be used to inform and discuss future work opportunities if they arise.

## V. Plenary Open Discussion

25. **Ms. Iyango** remarked that with regards to the assessment of future scenarios, the National Development Plan III is no longer working in silos but instead through programmatic approaches. This removes the ongoing concern of mandate-focused limitations on environmental affairs, and ongoing reporting is taking place through the programs. This is therefore an opportunity to integrate the current and/or future possible findings of the TEEBAgriFood Uganda study and the agenda surrounding urban- and peri-urban agriculture and its impact upon conservation areas.
26. **Dr. Mugume** thanked the panellists, and remarked on the importance of obtaining the figures and producing the background assessments to attract further investments for natural capital and biodiversity in Uganda. The current natural capital accounts being developed with the Ugandan Bureau of Statistics will also require further figures and support, as to account for the stocks and flows. With collaboration for the Nile Basin Initiative, Dr. Mugume invited Mr. Muramira to schedule a presentation with the Director of Economic Affairs in the Ministry of Finance to support this process.
27. **Dr. Byakagaba** further elaborated on the National Environmental Management Policy, and the proposal of full cost allocation in the decisions involving land cover change. He would wish for Dr. Mugume to the colleagues at the Ministry of Finance to begin integrating, as to inform whether the decisions being made are the most efficient. For example, the design and construction of built infrastructure in Uganda may perceive wetlands and forests as cheaper options in the compensation of affected peoples. In his view, this should in fact be more expensive with regards to nature's true value. If this is captured and integrated in the policies and perspectives of the Ministry of Finance and the Ministry of Water and Environment, there would be optimism for hard infrastructure developments to be managed in a sustainable way.
28. **Dr. Mugume** responded to Dr. Byakagaba's comments and drew on the example of the Entebbe Express Highway, where the infrastructure was planned in mindfulness to the conservation of wetlands and biodiversity. On the other hand, this involved compensating local peoples to relocate off-site.
29. **Mr. Ronald Kaggwa** (National Planning Authority) remarked on the effective discussions that have taken place, to demonstrate the strong linkages for the ecosystems and food systems. It is further critical that these perspectives should be emphasised in all interventions, planning, and decision-making processes going ahead. This is similarly reflected in the National Development Plan III, and should be subsequently taken forward as appropriate.
30. **Mr. Sowed Wamala** (Nile Basin Initiative) wished to pass a vote of thanks for confiding in the Nile Basin Initiative to provide this technical support for TEEBAgriFood. He noted their common objectives in the protection of livelihoods in Uganda and other Nile Basin countries, and are aligned in their objectives and activities. It is through the leveraging of previous Nile Basin Initiative work and TEEB-inspired projects that the TEEBAgriFood Uganda application presented today was successful. Mr. Wamala gave positive remarks on the possibility of future funding and possible opportunities to work together in the future, and passed a special thanks to the TEEB and Nile Basin Initiative teams who have participated towards the inputs in this study.



## VI. Closing Remarks

31. **Mr. Muramira** gave his thanks to the Nile Basin Initiative study team for the support provided throughout the study assignment, and noted his wishes that more time would have been available to develop the work. There has been much information produced for the Mabamba Bay Wetland System, and Mr. Muramira welcomed Dr. Byakagaba to get in touch to share any support which may be provided to his students at Makerere University. Thus, there may be an opportunity to develop the capacity for modelling by training some students from Makerere University on the sharing of resources and the practical application of ecosystem service valuation.
32. **Mr. Muramira** further thanked the support provided by Ms. Iyango and the Wetlands Management Department, especially with regards to the contributions to scenario building and discussing how the results may inform policymaking. A short policy brief may therefore be developed, and circulated for politicians to read instead of reading the full report. In collaboration with the video currently being developed by the Nile Basin Initiative and TEEB team, these materials will serve as impactful materials to make the case for sustainable development, urban and peri-urban agriculture, and wetland conservation for people and nature.
33. **Mr. Speller** thanked the participants on their discussion and reflections, and highlighted the appreciation for Mr. Wamala, Mr. Muramira, and the Nile Basin Initiative team who were able to complete the work in spite of the time pressures. To reiterate, typical project applications in the other TEEB countries take 3-4 years and with 10-20 times the amount of funding available. However, the nature of the funding for Uganda was short-term and limited, and so the work achieved has been a huge success and may be used as a springboard for future work. Mr. Speller gave his heartfelt thanks to all key peoples involved in this process.
34. Next, the Nile Basin Initiative and TEEB teams will finalise the final study report, the communications materials, and develop the summary policy brief. These products will be shared with all participants in early 2022, and shared with the wider stakeholder group including those who were not able to participate in the meeting.

## VII. Appendices

### Appendix A. Workshop Agenda

Time (EAT)	Session	Agenda Outline
10:00 – 10:10	Opening Remarks	<b>Welcome and Opening Remarks</b> <p style="text-align: right;"><b>Mr. Levis Kavagi</b> <i>Ecosystems and Biodiversity Regional Coordinator</i> UNEP Africa</p>
		<b>UNEP TEEB and Uganda Overview</b> <p style="text-align: right;"><b>Mr. William Speller</b> <i>Programme Management Officer</i> UNEP, The Economics of Ecosystems and Biodiversity (TEEB)</p>
10:10 – 11:10	<b>Presentations:</b> Reconciling ecosystems restoration and sustainable urban food systems in Kampala, Uganda.	<b>TEEBAgriFood Uganda and Results</b> Presentation showcasing the project results, modelling, key outcomes, and concluding policy recommendations. <p style="text-align: right;"><b>Mr. Eugene Telly Muramira</b> <i>Principal Study Research Officer</i> Nile Basin Initiative</p>
		<b>Urban Food Systems and Agricultural Policy</b> Presentation showcasing the areas of policy interactions when using a food systems approach in urban and agricultural policies in Kampala. <p style="text-align: right;"><b>Dr. Esau Galukande</b> <i>Ag. Dir – Directorate of Gender, Planning, and Production</i> Kampala Capital City Authority (KCCA)</p>
11:10 – 12:00	Plenary Discussion	<b>Panel Discussion</b> Moderated by William Speller, and calling on political stakeholders to provide feedback on the policy relevance of the project, it's results, and the entry points for decision-making.
		<b>Open-Floor Discussion</b> Moderated by William Speller, and calling on all workshop participants to comment and feedback on the project, it's results, and the roadmap to change.
12:00 – 12:10	Closing Remarks	<b>Summary and Conclusion</b> <p style="text-align: right;"><b>Mr. William Speller</b> <i>Programme Management Officer</i> UNEP, The Economics of Ecosystems and Biodiversity (TEEB)</p>

For more information about UNEP-TEEB, visit: <http://teebweb.org/>

To register, please email: [naomi.young@consultants.unep-wcmc.org](mailto:naomi.young@consultants.unep-wcmc.org)

For more information on the TEEBAgriFood Uganda project, please contact: [william.speller@un.org](mailto:william.speller@un.org) and [naomi.young@consultants.unep-wcmc.org](mailto:naomi.young@consultants.unep-wcmc.org).

## Appendix B. Participation List

#	Name	Affiliation
1	William Speller	UNEP TEEB
2	Monica Lopez	UNEP TEEB
3	James Lomax	UNEP TEEB
4	Jacob Salcone	UNEP TEEB
5	Jay van Amstel	UNEP TEEB
6	Khushboo Ugandamal	UNEP TEEB
7	Edwina Matano	UNEP TEEB
8	Sarah Cheroben	UNEP TEEB
9	Naomi Young	UNEP TEEB
10	Sowed Wamala	Nile Basin Initiative
11	Eugene Muramira	Nile Basin Initiative
12	Marieke Sassen	UNEP World Conservation Monitoring Centre
13	Lucy Iyango	Ministry of Water and Environment
14	Sam Mugume	Ministry of Finance, Planning, and Economic Development
15	John Diisi	National Forestry Authority
16	Patrick Byakagaba	Makerere University
17	Gerald Nizeyimana	Food and Agricultural Organisation, Uganda
18	Racheal Nalule	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), Uganda
19	Fiona Adikini	Trees for the Future