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## Video Conference on Trial Accounts 7 April 2014

### 1. Welcome and Introductions

A videoconference (VC) was held on April 7, 2014 noon-2pm Manila time with the World Bank (WB) Manila, technical expert from the University of Wageningen and Washington DC office on the trial accounts prepared by the Laguna Lake Development Authority (LLDA) under the Philippine Wealth Accounting and Valuation of Ecosystem services (Phil-WAVES) project. During this VC, the draft work plan and expected outputs, data collection/consolidation efforts, proposals for data entry/survey submitted to the WB and the contribution of the European Space Agency (ESA) were discussed (for a background and agenda see annex 1). For a full list of participants see annex 2.

### 2. Update on the ecosystem accounts for the Laguna Lake Basin

The TWG of LLDA has made good progress on the development of the ecosystem accounts for the Laguna Lake basin. In particular, the team has started to collect and consolidate data, has further developed and refined the proposals for primary data collection, has good progress on obtaining free and prior informed consent of Indigenous Peoples (IPs) in the project area and has developed a proposal on additional consultations needed.

**Data collection and consolidation:** The TWG has made good progress in data collection and consolidation based on the data gap assessment developed and further refined since the mission in February. Quality and quantity data for MAMASAN has been obtained from EMB. The team is still following up on the data requests for the other agencies: notably, the local water utilities, National Water Resources Board (NWRB), Philippines Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), National Power Corporation (NPC), the National Irrigation Administration (NIA) and National Mapping and Resource Information Authority (NAMRIA).

The discussion also highlighted that it will be important to review all the existing reports and past projects that have been carried out at LLDA and/or for the Laguna Lake basin. They might have collected useful information or developed models that could be used for the ecosystem accounts. One examples is the ACIAR project that was done with LLDA from 2006-2009 <http://aciar.gov.au/files/node/11874/SMCN-2004-069%20Final%20report.pdf>. The report provides excellent information on pesticide use and sediment load in the Laguna Lake basin. Similarly, several fish stock assessment already exist that can be used as a reference year for the analysis

**Next steps:** The target date for the collection of data is April 30, 2014. The three working groups will report on progress to AGM/Oggie by April 11<sup>th</sup>. Bebet has offered to help follow-up and asked AGM to share with her the email correspondence. The work plans for each group (fisheries, water and land) will be revised following the update of April 11<sup>th</sup> and shared with



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AGM/Oggie/WB team for comments and review. The work plans will be revised and finalized by May 9, 2014.

In addition, the LLDA TWG (all account groups) will review existing reports and/or past projects of the LLDA and in the Laguna Lake basin for potentially useful information, data and models that could be used for the ecosystem account. Relevant data and/or models will be consolidated by April 30. A skype call will also be arranged between Lars Hein and Engineer Emil Hernandez to discuss the SedNet model for sedimentation load (either the week of April 7<sup>th</sup> or 14<sup>th</sup>). Similarly, a range of studies exist on fish stock assessments.

**Proposals 1: Data Entry** The LLDA TWG (water accounts) explained that 3,000 new industries will need to be incorporated into the LLDA hardware. In addition, the team clarified that the acquisition of hardware (3 computers) is necessary for the following reasons: (i) LLDA budget does not support this, (ii) there is only one license per computer (DSS), (iii) the proposal aims to enter the industry data and geotag them in the field and (iv) to import the water quality data into the Hymos database, 2 units of computer are necessary to protect data integrity and security. The hardware will not have to be purchased if it is decided that there will only be data entry (no geotagging). However, this should only be done if industries can still be linked to a waster water outflow point Moreover, the encoding of the 3,000 industries could be contracted out to an encoding group (such as the UP Population Institute), which would eliminate the need for the computers.

**Next steps:** The LLDA TWG (water accounts) will revise proposal addressing the comments raised by the WB team and share it with AGM/Oggie/WB team by April 30. WB will review the proposal with the technical support of the ABS business register experts. The WB will also review the need to acquire the proposed hardware and inform LLDA by May 9 of their decision on funding the proposal.

**Proposals 2: Pesticides Monitoring** The proposal has been revised to incorporate the cost of the analysis and organo phosphates. The team was advised to further specify which pesticides it is planning to collect. The ACIAR report mentioned above carried out a survey of pesticides, which could be used as a basis for the TOR on pesticides monitoring. The data will be collected at the 25 identified sites on a quarterly basis to measure the seasonal variation. The data collection follows LLDA procedure for the collection of pesticides samples.

In addition, the LLDA TWG (water accounts) clarified that the pesticides monitoring will be carried out as part of the regular quarterly monitoring at the 25 identified sites. Therefore, no additional staff is needed, but support is required to analyze the data. The samples will be sent to an accredited laboratory. It is important to note that the LLDA has the necessary equipment to do



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the analysis, which is however currently not installed. LLDA will be able to carry out the analysis, once the laboratory has transferred to the new location (expected by the middle of 2014) and the equipment has been set up, calibrated and the staff trained (expected by Q1/Q2 of 2015). It was thus agreed that the project will finance the analysis of the first two quarterly samples and that the remaining two quarterly samples will be carried out by LLDA in house. This will promote institutionalization and sustainability.

No separate of monitoring for heavy metals will be necessary, as LLDA-ELRD is already monitoring it.

**Next steps:** The LLDA TWG (water accounts) will revise proposal addressing the comments raised by the WB team and share it with AGM/Oggie/WB team by April 30. In addition, the procedure for the collection of pesticides samples will be shared with Lars Hein by April 11. WB will review the proposal and inform LLDA by May 9 of their decision on funding the proposal.

**Proposals 3: Fish Resources assessment** The LLDA TWG (fisheries accounts) clarified that baseline data is available from previous stock assessments by LLDA and the Bureau of Fisheries and Aquatic Resources (BFAR) and that BFAR and the Bureau of Agricultural Statistics (BAS) have collected a lot of fisheries data. It was thus decided that the most cost effective approach will be to compare the available data with the data required for ecosystem accounting, such as harvest, cost of production/fishing effort etc. Any data gaps would be addressed by the survey. This will clearly define the scope of the survey, which is not expected to be long (no more than 4-5 pages) and will cover all the fish pen operators (ca. 300) and a sample of fisher folk and fish cage operators (ca. 1000 each). The questionnaire would be developed by the LLDA TWG with technical assistance and guidance from the WB team and PSA as needed and would be conducted by a survey company.

**Next steps:** The LLDA TWG (fisheries accounts) will compare existing data to the needs for the ecosystem accounts and identify data gaps by April 14. The proposal will be revised accordingly and shared with AGM/Oggie/WB team by April 30. WB will review the proposal and inform LLDA by May 9 of their decision on funding the proposal.

**Proposal for European Space Agency (ESA) support** The LLDA TWG (land accounts) agrees with the revised proposal for ESA support made by the WB team. It will be very helpful to cover a larger area with a broader classification that will further break down the existing NAMRIA classification. It will also be helpful to have similar products for both. However, the LLDA is using its own land cover mapping model and it would be important to clarify whether the LLDA would prefer to continue using its own classification and, if yes, how it could best be aligned with the official land cover classification used by NAMRIA. It was agreed that this should be



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clarified in a discussion with engineer Emil Hernandez and Lars to determine how the current model could be used in the context of ecosystem accounting.

*Next steps:* The WB team will be set up a call with ESA and the technical experts from NAMRIA, LLDA, University of Wageningen and ABS to finalize the specification of the products to be delivered as soon as NAMRIA shares the necessary information (the information was shared on April 8). The LLDA TWG (land accounts) will arrange for a skype call with Lars Hein and Emil Hernandez.

**Stakeholder consultations** It was agreed that the IP consultation led by the National Commission of Indigenous Peoples (NCIP) would be held separate from the planned focus group discussions as advised by the WB social safeguards specialist. This will ensure that safeguards are met. In addition, LLDA will arrange a consultation/awareness raising event with the Federation of River Basin Council (FRBCs) to clarify the scope of and expectations about the project. The original proposal by LLDA can be used for the latter event.

*Next steps:* The LLDA will support NCIP in conducting the validation for IPs, which are expected to be held by April 30. The consultation with the FRBCs will also be held by April 30.

**3. Next steps**

The agreed next steps are summarized in the table below.

<b>Task</b>	<b>Responsible agency</b>	<b>Time line</b>
<b>Data collection and consolidation</b> <ul style="list-style-type: none"> <li>Follow up with other agencies on data requests and report to AGM/Oggie/WB team (Bebet Gozun can help with follow-up if needed)</li> <li>Arrange skype call between Lars Hein and Emil Hernandez</li> <li>Review existing reports and/or past projects of LLDA and/or the Laguna Lake basin for potential data and/or models to be used in the ecosystem accounts</li> <li>Complete data collection of data</li> <li>Revise work plans for each accounts group based on data availability</li> </ul>	April 11, 2014  April 11, 2014  April 30, 2014  April 30, 2014 May 9, 2014	LLDA TWG: fisheries, land and water accounts
<b>Proposals for additional data collection</b> <b>1) Data entry:</b>		



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<b>Task</b>	<b>Responsible agency</b>	<b>Time line</b>
<ul style="list-style-type: none"> <li>Revise proposal addressing WB comments and share with AGM/Oggie/WB team</li> <li>Review the proposal and inform LLDA of funding decision</li> </ul>	<p>April 30, 2014</p> <p>May 9, 2014</p>	<p>Water accounts</p> <p>WB</p>
<p><b>2) Pesticides monitoring:</b></p> <ul style="list-style-type: none"> <li>Share procedure for the collection of pesticides samples with Lars Hein</li> <li>Revise proposal addressing WB comments and with AGM/Oggie/WB team</li> <li>Review the proposal and inform LLDA of funding decision</li> </ul>	<p>April 30, 2014</p> <p>April 14, 2014</p> <p>May 9, 2014</p>	<p>Water accounts</p> <p>WB</p>
<p><b>3) Fish stock assessment:</b></p> <ul style="list-style-type: none"> <li>Compare existing data to the needs for the ecosystem accounts and identify data gaps</li> <li>Revised proposal addressing WB comments and share with AGM/Oggie/WB team</li> <li>Review the proposal and inform LLDA of funding decision</li> </ul>	<p>April 30, 2014</p> <p>April 30, 2014</p> <p>May 9, 2014</p>	<p>Fisheries accounts</p> <p>Fisheries accounts</p> <p>WB</p>
<p><b>ESA proposal</b></p> <ul style="list-style-type: none"> <li>Arrange skype call with Lars Hein and Emil Hernandez</li> <li>Set up a call with ESA and the technical experts from NAMRIA, LLDA, University of Wageningen and ABS to finalize the specification of the products</li> </ul>	<p>April 11, 2014</p> <p>April 30, 2014</p>	<p>Land accounts</p> <p>WB</p>
<p><b>Stakeholder consultations</b></p> <ul style="list-style-type: none"> <li>Conduct IP consultations/field validation with NCIP</li> <li>Conduct consultation/awareness raising event with FRBCs</li> </ul>	<p>April 30, 2014</p> <p>April 30, 2014</p>	<p>LLDA TWG</p>



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### Annex 1: Background & Agenda

The WAVES Global Partnership Program (GPP) promotes sustainable development worldwide through the implementation of wealth accounting that focuses on integrating natural capital accounting (NCA) in conventional development planning and policy analysis. Past attempts to institutionalize NCA – both globally and in the Philippines – have often failed due to the lack of a clear policy link, disagreements on methodology, lack of global leadership and limited capacity and resources. The WAVES GPP tries to tackle these issues by (i) helping countries adopt and implement NC accounts and pilot ecosystem accounts that are relevant for policy priorities; (ii) using a universally accepted standard (SEEA 2012) for NCA and establishing a partnership to develop methodologies for ecosystem accounting; (iii) using the convening power of the World Bank to rebuild a consensus and (iv) building capacity.

The Philippines was identified as one of the pilot countries for the WAVES GPP, because: (i) there is a high Government demand for indicators, tools and methodologies that will help determine the sustainable use of natural resources and inform development planning and policy analysis; (ii) a more sustainable use of natural resources could potentially have a large impact on the poor and thus economic growth, as the poverty incidence is particularly high among natural resource-dependent sectors; and (iii) the Government has a high latent capacity in NCA from previous initiatives, while academic and private organizations have the necessary skills for ecosystems accounting.

The objective of the Philippine Wealth Accounting and Valuation of Ecosystems (Phil-WAVES) initiative is to promote sustainable development through the implementation of wealth accounting that focuses on the value of natural capital and integrating NCA in development planning and policy analysis. Phil-WAVES will generate more rigorous evidence on the value of natural capital and assess different ecosystem use scenarios to inform development planning and policy analysis. There is a strong demand for more evidence-based decision-making in the Government of the Philippines' social compact and key development plans. This initiative feeds into this demand.

The Phil-WAVES project has begun the work on the two selected ecosystem accounts in Southern Palawan and the Laguna Lake basin. The lead agency for the Southern Palawan ecosystem account is the Department of Environment and Natural Resources (DENR) in collaboration with the Palawan Council for Sustainable Development (PCSD). The lead agency for the Laguna Lake basin ecosystem account is the Laguna Lake Development Authority (LLDA), which will collaborate with the Federation of River Basin Councils. The two sites are quite different in terms of their challenges and natural resources uses.

**Laguna Lake Basin:** The Laguna Lake Basin is a vital ecosystem and center of economic activity for the capital city of Manila and neighboring provinces. The lake is home to one-fifth of



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the country's population who rely on the lake for water, food, energy, recreation and livelihoods. As a center of various economic activities, the Laguna De Bay region is considered to be of high strategic and economic importance.

However, the lake's ecosystem is at risk, as fish catches dwindle due to poor water quality and the proliferation of predatory aquatic species. In addition, increased rainfall brought about by climate change frequently causes the lake's waters to overflow, flooding the neighboring municipalities. The ecosystem accounts conducted by Phil-WAVES are expected to help the LLDA properly price the lake waters for water concessionaires that extract and use it for drinking purposes, and for fish pen and cage operators who use it for aquaculture.

The WAVES project in the Philippines kicked off with a series of public consultations with various stakeholders last August 2013. Since then, global and local experts have conducted a series of trainings and planning workshops on eco-system accounts and the principles of natural capital accounting in Manila and Canberra. These workshops helped develop consensus among stakeholders on the policy issues the eco-system accounts would address. The issues to be addressed in the Laguna Lake region are siltation and pollution of the lake.

Good progress has been made on compiling the accounts for the Laguna Lake basin, including the compilation of a land cover change matrix and water use and supply tables. Work on the data gap assessment has begun for the land, water and fisheries accounts. In addition, the free and prior informed consent (FPIC) of Indigenous Peoples (IP) communities in the Laguna Lake Basin is in process.

### Agenda

1. Introductions
2. Provide an update on preparation of ecosystem accounts for Laguna Lake (institutional arrangement, FPIC, data collection, etc.)
3. Discuss draft work plan and expected outputs
4. Discuss the data collection/consolidation efforts
5. Discuss proposals for data entry/survey submitted to the WB
6. Agree on ESA contribution (specification, scope)
7. Other matters
8. Next steps



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**Annex 2: Participant list**

**Manila, Philippines:**

- |                           |                |
|---------------------------|----------------|
| 1. Dolora N. Nepomuceno   | LLDA           |
| 2. Lennie C. Santos Banjo | LLDA           |
| 3. Emiterio C. Hernandez  | LLDA           |
| 4. Ireneo G. Bongco       | LLDA           |
| 5. Jocelyn G. Sta Ana     | LLDA           |
| 6. Adelio Rico            | LLDA           |
| 7. Alvin Faraon           | LLDA           |
| 8. Maya Villaluz          | WB (via phone) |
| 9. Bebet Gozun            | WB (via phone) |
| 10. Agustin Arcenas       | WB             |

**Wageningen, Netherlands**

Lars Hein

University of Wageningen (via phone)

**Washington DC, USA**

Stefanie Sieber

WB



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**Annex 3: Summary of Pre-VC meeting of the LLDA TWG**

<b>Next Steps</b>	<b>Responsible agency/person</b>	<b>Deadline</b>	<b>Status as of March 14</b>	<b>Discussion (April 7)</b>
1. Collect data per data gap (refer to attached data gap assessment)	Land Account Group Water Account Group Fisheries Account Group All relevant LLDA departments/divisions	01 May 2014	(to be reported by each Acct Group in the March 14 meeting with Dr. Oggie Arcenas)	Rec'd data for MAMASAN from EMB; Follow up with other agencies on other data requests, by April 10; each TL will update/progress via email to AGM on status by April 11
2. Send proposals to World Bank for funding under the Bank-administered grant		March 15, 2014		Revised proposal addressing WB Task Team's comments emailed to Stef, cc Dr. Arsenas; for discussion during VC
<ul style="list-style-type: none"> <li>Data entry</li> </ul>	Water Account Group in collaboration with Environmental Regulation Dept./Atty. Charm Lopez, Core Group Member		Draft submitted by ERD/Water Acct Grp., with comments from AGM and ELRD	To address WB's comments on the hardware cost, we reiterate our request for support for computer acquisition for the ff. justifications: <ul style="list-style-type: none"> <li>i) LLDA budget does not support this</li> <li>ii) One license per computer (DSS), can't be used for other computers,</li> <li>iii) Industry data entry plus geotagging in the field</li> <li>iv) For the WQ data to be imported to the Hymos database, 2 units of computer are necessary to protect data integrity and security.</li> </ul>
<ul style="list-style-type: none"> <li>Survey of</li> </ul>	Water Account Group		Draft proposal on	Proposal revised to address WB's comments, to



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<b>Next Steps</b>	<b>Responsible agency/person</b>	<b>Deadline</b>	<b>Status as of March 14</b>	<b>Discussion (April 7)</b>
pesticide used by farmers	in collaboration with : (i) PDMED/Ms. Leonor Poserio, Core Group Member, on the sources of information/data and methodology used in the CSIRO study on agricultural pollution in the Pagsanjan-Lumban River Basin funded by the Australian Government; (ii) PPIMD/Ms. Maristel Espiritu, Core Group Member, for technical assistance in relation to statistical and data analysis requirements		Pesticide Monitoring Program submitted by ELRD/Water Acct Group, under review by AGM	be discussed during VC
<ul style="list-style-type: none"> <li>Fish Stock Assessment</li> </ul>	Fisheries Account Group In collaboration with ELRD, ERD, CDD, attention: Ms. Adelina Borja (Note: to facilitate proposal		Previous TOR reviewed and updated by ELRD, now under review by AGM	Current fish stock assessment is proposed, baseline data will be based on previous stock assessments. Survey method is preferred to focus on all data/info required/relevant for EA incl harvests, cost of prodn per fishing method, but not yet on scientific data; LLDA thru the Fisheries Acct Team to coord



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<b>Next Steps</b>	<b>Responsible agency/person</b>	<b>Deadline</b>	<b>Status as of March 14</b>	<b>Discussion (April 7)</b>
	preparation, please revisit and update the earlier proposal)			with BAS & BFAR on what data they generate, the data gaps for EA purpose will be collected by LLDA thru survey to be supported thru Phil-WAVES. LLDA can make arrangement with BFAR/BAS on collection of other data as a ride-on to their regular surveys. Updates to be reported NLT April 14 via email
<ul style="list-style-type: none"> <li>Pesticide (and heavy metal) analysis of ambient water</li> </ul>	Water Account Group		This forms part of the Proposal on Pesticide Monitoring Program	Since LLDA-ELRD is monitoring loading of HM in Laguna Lake, the proposal includes only pesticide
3. Update proposal to European Space Agency	Drs. Stefanie Sieber & Lars Hein	February 28, 2014	Already sent by Dr. Sieber before EO Feb.	Comments of LLDA to be discussed during VC: LLDA agrees with Dir. Domingo's option to use the existing classifications provided by NAMRIA
4. Bring the FRBC on board in the TWG and conduct another round of consultations on priority issues, to be supported through the WB-administered grant	Core Group, to be led by AGM and assisted by the TWG, in collaboration with the Community Devt. Division/Ms. Reena Buena, OIC-CDD	March 30, 2014	Stakeholders Focus Group Discussion (FGD) to be conducted on March 25, 2014, with the FRBC and some active RCs on board Comments received from Dr. Sieber to be incorporated into the proposal	Consulted with Ms. Flo Lazaro on how to proceed with the next consultation. She will send an email to TTL, cc. LLDA, on the way forward in relation to the NCIP's conduct of validation



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<b>Next Steps</b>	<b>Responsible agency/person</b>	<b>Deadline</b>	<b>Status as of March 14</b>	<b>Discussion (April 7)</b>
5. Secure Cert. Of non-Overlap from NCIP-Region IV for areas without IPs/ancestral domains; Creation of FPIC Team and completed work plan and budget requirements by NCIP Region IV	Mr. Ireneo Bongco, in coordination with WB Safeguards Specialist (Ms. Florian Lazaro)	March 30, 2014	All CNOs already secured, posted at the LLDA Website and all Bulletin Boards at the LLDA offices at SRA Cmpd. To be officially submitted to WB either today (March 14) or Monday (March 17) and posted at the WB Website	DONE FPIC Team created by NCIP LLDA ok'd budget for the conduct of validation process for areas with IPs/ancestral domains
6. Detailed work plan	All Accounts Groups	May 15 2014	Refinement of WP by each Account Group (Land, Water, Fisheries)	No revisions yet pending data gathering, agreed to finish the work plan as accurately and as realistically as possible. 3 Acct Teams to send current version of work plans to AGM, cc Dr. Arcenas by April 11
7. Video conference	All Accounts Groups	End of March 2014		April 7
8. Take stock of data collected and evaluate how these can inform water pricing	All Accounts Groups	Early May 2014	To be discussed during March 14 meeting with Dr. Arcenas	Please refer to item 10 of the March 14 meeting summary