REPUBLIC OF RWANDA

Natural Capital Accounting

Annual progress report (2015). Revised version

May 2016

Acronyms

BMC/Skol	Brasserie Des Milles Collines/SKOL beer
EDPRS	Economic Development and Poverty Reduction Strategy
GIS	Geographic information system
IBES	Integrated Business and Enterprise Survey
ISIC	International Standard Industrial Classification of All Economic Activities
MINAGRI	Ministry of Agriculture and Animal Resources
MININFRA	Ministry of Infrastructure
MINECOFIN	Ministry of Finance and Economic Planning
MINIRENA	Ministry of Natural Resources
NAEB	National Agricultural Export Development Board
NCA	Natural Capital Accounting
NISR	National Institute of Statistics Rwanda
NSC	National Steering Committee
NWRMP	National Water Resource Management Plan
PSUT	Physical Supply and Use Tables
PWFA	Physical Water Flows Accounts
RAB	Rwanda Agriculture Board
RBS	Rwanda Bureau of Standards
RDB	Rwanda Development Board
REG	Rwanda Energy Group
REMA	Rwanda Environment Management Authority
RNRA	Rwanda Natural Resources Authority
RRA	Rwanda Revenue Authority
RTDA	Rwanda Transport Development Agency
SAS	Season Agriculture Survey
SEEA	System of Environmental-Economic Accounting
SNA	System of National Accounts
SORWATOM	Société Rwandaise de Traitement de Tomates
TWG	Technical Working Group
UTEXRWA	Usine Textile du Rwanda
WASAC	Water and Sanitation Corporation Ltd

Water PSUT   Physical Supply and Use Tables for Water

WAVES   Wealth Accounting and Valuation of Ecosystem Services

Contents

1. Introduction

Natural Capital Accounting (NCA) program Rwanda has started implementation since earlier 2015 and, so far, notable progress has been made on the accounts development. Referring to the original plan, much has been done on the Land Accounts, with preliminary results from compilation of the physical Land Use Change Matrix and the Land Cover Map. For the Water Accounts, identification, exploration and development of basic data and compilation of the physical water accounts, both supply-use and water asset accounts and hybrid accounts will take some time. This was expected because data are scattered through different institutions and additional data collections have to be prepared. However, at this stage, existing physical information on the water flows and resources contains already some relevant information, even though more is needed also in terms of coherent data and system setup. For Mineral accounts, priority will be given to do a rapid analysis of the environmental and social costs associated with mineral development and extraction in Rwanda, and also to assess available data needs and set up a,work plan for compiling the mineral accounts. On-the-job-trainings, as key pillar within the capacity building track, were done successfully and were the focus of previous missions held by the WAVES team. Given that NCA is a new concept that requires gradual trainings, seminars, workshops, etc. A communications and engagement strategy is also considered as a key tool to sustain the program as well as a developed institutional setup. In this respect fine progress has been made on exchange of data, information and knowledge between the key institution, including relevant ministries within the country. There is widespread awareness of the major role the key-natural resources will play in the development of the country and therefore these resource need to be managed in right way based upon consistent, coherent and well developed information system, like NCA and detailed environmental accounting modules. Communication products, delivered so far, respond to specific questions and shall be soon shared with targeted audiences.

2. Overall progress in land and water accounts

Key pillars in the Rwanda-WAVES program are "Accounts Development, Capacity Building Communication and Engagement Strategy, and Policy Analysis" These four key tracks are to be developed in parallel to ensure a quick feedback from relevant stakeholders, people and institutions and generate positive impact now and for the future.

2.1. Accounts development

2.1.1. Land Accounts

The development of the Land Accounts shows very good progress in terms of tangible products that mostly result from combined efforts of the technical support from the Netherlands Statistics, the TWG team, the NCA data analysts on board and technical advice from the WAVES team in Washington. The first products towards implementing the Land Accounts focused on physical land accounts compilation including a Land Use Change Matrix for 2012, 2013 and 2014 for the whole country, and for provincial and district levels for 2014. Furthermore, the Land Use Change Matrices at provincial level for 2012 and 2013 as well as these at District level (30) will be published shortly. The existing land cover maps for 1990, 2000 and 2010 will be used to develop raw data land cover

change matrices for the period between 1990-2000 and 2000-2010. Existing Land cover classifications needs to be translated to the standard notation in the SEEA- classifications.

Physical information on land use / land assets will be linked to economic data in order to compile a monetary land account, and land accounts by the ISIC classification for economic activities. Undergoing investigations focus on deriving economic data from existing sources / registers including transaction values and land lease values, establishment of potential data sources and development of data collection questionnaires. In Land Administration Information System (LAIS), financial transactions on land for the year 2014 up to March 2015 are available and are under review to build the monetary land use matrices. Mortgage data that might exist at Rwanda Development Board (RDB) and these related to expropriations are under investigations. Together with existing monetary info in LAIS on transactions, and data from within National Institute of Statistics Rwanda (NISR) including National Accounts information at macro and industry level and monetary accounts developed
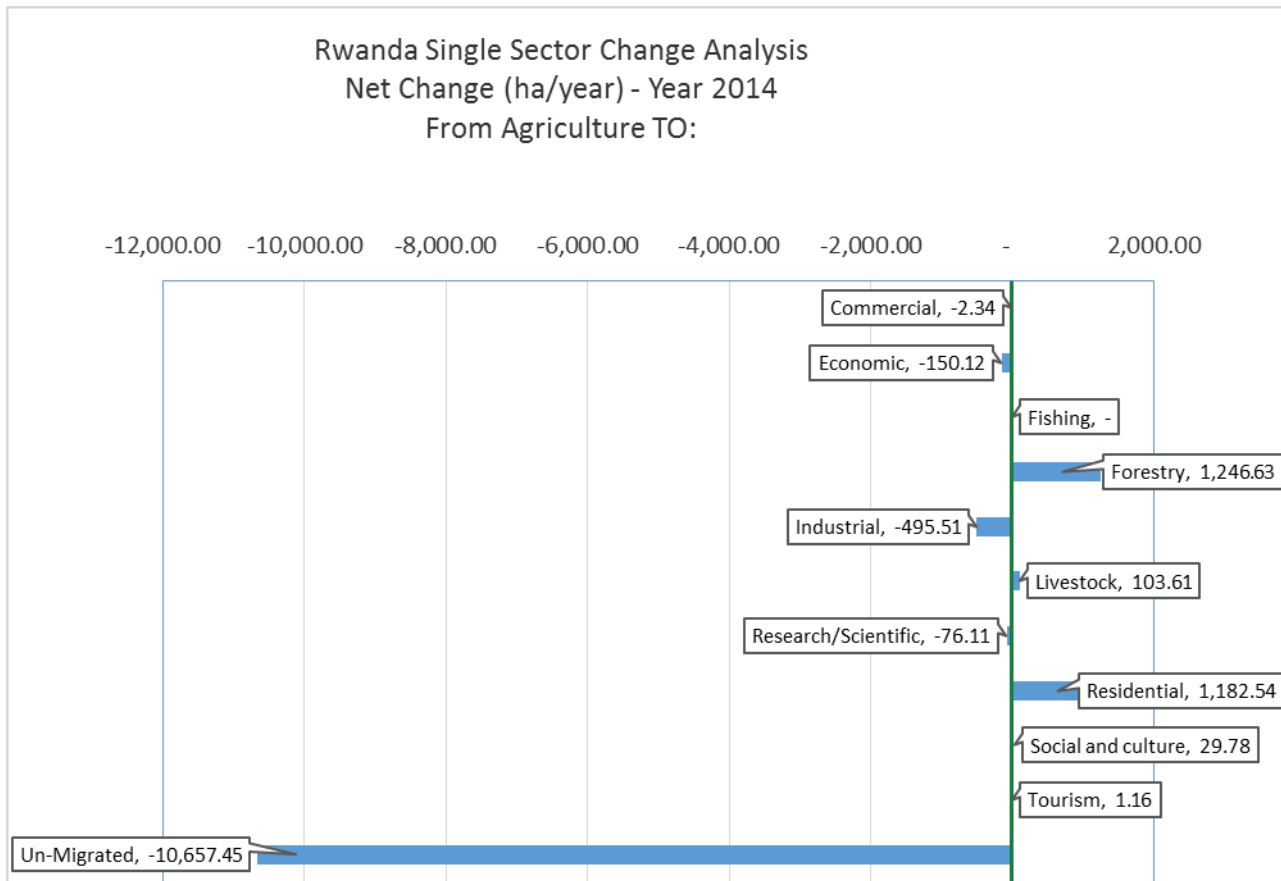
Preliminary results on the Land Use Change Matrix for 2014
Figure 1 shows the overall physical Land Use Change for the year 2014 (from January to December). In that period of a year, the preliminary results show that the largest change in land use is a loss of land Not-Migrated in Land Administration System (LAIS), and land gained by Agriculture, forest and residential sectors. Together this shows that land Not-Migrated in LAIS is largely converted into Agriculture, forest and residential land. This conversion is perfectly illustrated by the Land Use Change matrices. A few thousands of Ha seem to have moved from Land Not-Migrated in LAIS to other sectors.
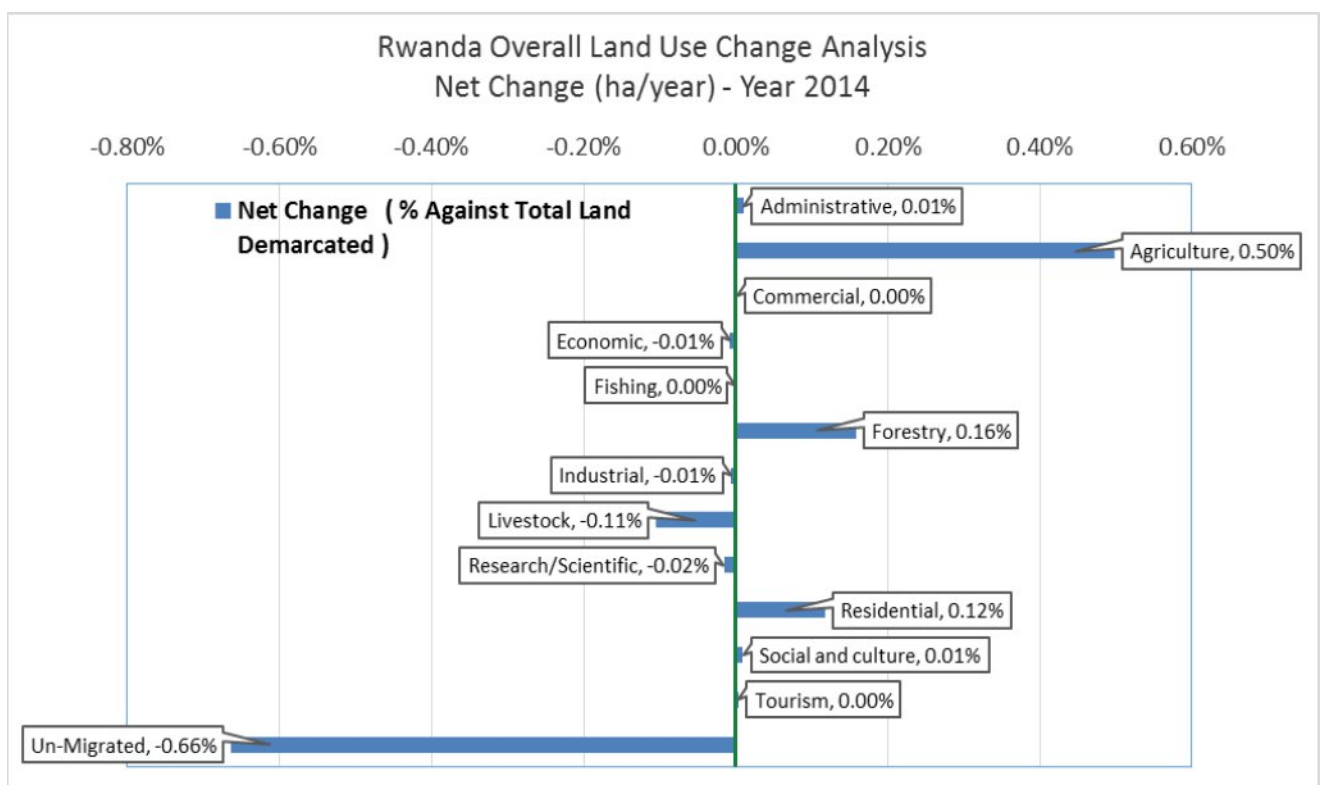
Figure1 Rwanda land use change in 2014

By using a single sector analysis, it can be shown (Figure 2) that a few thousand Ha had moved from Agriculture to Forestry and residential uses, a somewhat smaller conversion of agricultural land to use for livestock and that 10 thousands of Ha from Land Not-Migrated in LAIS; few hundred Ha from economic and industrial uses moved back into agriculture land use.

Rwanda Single Sector Change Analysis
Net Change (ha/year) - Year 2014
From Agriculture TO:

| | -12,000.00 | -10,000.00 | -8,000.00 | -6,000.00 | -4,000.00 | -2,000.00 | - | 2,000.00 |

Commercial, -2.34
Economic, -150.12
Fishing, -
Forestry, 1,246.63
Industrial, -495.51
Livestock, 103.61
Research/Scientific, -76.11
Residential, 1,182.54
Social and culture, 29.78
Tourism, 1.16
Un-Migrated, -10,657.45

Figure2 Rwanda Single sector change, between agriculture and other land uses

Fair quick things to do with Land Accounts

In order to make parallel progress in both the accounts and policy application tracks, the NCA team is developing research questions for a policy analysis to be turned into policy briefs. From existing results, some fairly quick things can be done. The land account can be used to show for example:
- Show land use by industry / sector, illustrating dependency of particular industries for land;
- Link land use in hectares to national accounts data and show what the production and value added per hectare are in various uses;
- Derive some key ratio indicators from the developed land accounts together with National Accounts, with intensity and productivity indicators like land used / value added, land / capita by district, etc.
- Derive productivity indicators and its development over time for particular type of land. E.g. derive productivity development for agriculture, livestock and forestry in terms of production value / hectare or Value Added / hectare, eventually by region.
- Analyze the employment per hectare.
- Derive average transaction values for land by industry / sector and possibly also by province or district and development in there. From the variation in land values (standard deviation)

one can gain additional insight. This will allow to assess the asset values of land by type, industry and region, allowing to further analyze the contribution of the (agricultural) in the total (natural) wealth of the country;

- Show land value distribution in a spatial explicit manner for the country.

Changes over time will of course be more interesting to analyze once the accounts are available for several calendar years.

2.1.2. Water Accounts

As already highlighted, progress in water accounts compilation has been more challenging than land accounts, due to scattered information that requires time and resources in terms of mobilizing all key stakeholders to provide required data from existing registers and also to organize and start basic data collection for some variables on both water flows with supply & use and on water resources. This has been initiated and existing information, in the National Water Resources Master Plan (2012 data), the public utility WASAC, MINAGRI/RAB, REG, AquaVirunga, Rwanda Meteorology Agency, can for example be used already to populate the physical water supply and use tables (water PSUT), to make a preliminary integrated resource and economic analysis. Water use and consumption by each economic sector can inform policy on which sector uses most water, by water type to what level of production and to where the use becomes more intensive/efficient or less. The combination of Water Accounts with National Accounts information can therefore be used to derive water productivity performance and its development for the country as a whole and by industry/sector.

Preliminary results on the Water Accounts

- **Physical Water Asset Accounts**

Table 1 shows the first result for partially compiled Physical water Asset Accounts that compiles data from the National Water Resources Master Plan (NWRMP), on water abstracted and used (in million cubic meter) in 2012. From this preliminary information, it can be seen that the cross border outflow (11 MCM) is higher than inflow (0.143 MCM) with a closing stock for water resources that shows that storage water was reduced by 49,187M m^3. However, more is required to comply with the System of Environmental-Economic Accounting type of accounting (SEEA). Though the data and analysis done so far is not complete, it is rather useful guide to the gaps that need to be filled. That's why this cannot lead us to any further conclusion given that other sources of information are to be checked. Furthermore, once data for 2013, 2014 and 2015 are available, and that inflows and outflows (from other territories) data for 2012-2015 are compiled, it would enable tracking the trends on this difference between the opening and the closing stock and then draw conclusions based on accurate information.

Table1. Physical asset account for water resources Year 2012 [*] in Million m^3

MCM	Surface water	Soil water	Groundwater	Total

	Lakes	Rivers	Artificial reservoirs			
Opening stock water resources	553,838	6,822	xx	xx	62,127	622,787
Additions to stock						
Returns of water	223,990		xx	xx	Xx	223,990
Precipitation	27,507		xx	xx	Xx	27,507
Inflows from other territories		0.143	xx			0.143
Inflows from other inland water resources	xx	xx				xx
Total additions to stock	251,497	0.143	xx	0	0	251,497
Reductions in stock						
Abstraction of water	279,987	xx	xx	xx	Xx	279,987
Evaporation and transpiration	20,686	xx	xx	xx	?	20,686
outflows to other territories	0	11	?			0
outflow to the sea	0	0	0			0
outflow to other inland water resources	xx	0	xx	xx	Xx	x
Total reductions in stock	300,673	11	xx	0	0	300,673
Closing stock water resources	504,662	6,811	xx	xx	62,127	573,611

Remark: XX represent cells with no data from NWRMP, but for which one may well expect a value from on-going data collections (in later stage of WAVES project). ? Marks the cells for which it is uncertain but a value can be expected.

[*)] *Table shows just partial data, data that derivable from the NWRMP.*

- **Physical Water Supply and Use Tables (PSUT)**

Physical water supply and use tables (SEEA-W, 2012, chap. III), also called Physical Water Flow Accounts (PWFA), provide information on the volumes of water exchanged between the environment and the economy (abstractions and returns) and exchange within the economy (supply and use within the economy). For the case of Rwanda data of 2012 year from NWRMP were used to partially compile PSUT and results are summarized in Table 2 and Table 3.

Table 2. Physical water supply table for water (2012 reporting year based on NWRMP in 10^3 m^3)

	Abstraction of water, Production of water, Generation of return flows								Total supply (000m^3)
	Agriculture	Manufacturing	35 electricity	36 water supply	37 sewerage	other industries + Mining +commercial	Households	Flow from the environment	
(I) Sources of abstracted water									
Surface Water								150,570	150,570
Ground water								128,610	128,610
Green water Rainwater harvesting								807	807

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	Agriculture	Manufacturing	35 electricity	36 water supply	37 sewerage	other industries + Mining +commercial	Households	Flow to environment	Total use
(II) Abstracted Water									
For distribution				279,180					279,180
For own use	807	xx	xx		xx	xx			807
(III) Wastewater and reuse water									
Wastewater	9,106	6,866				3,406	149,652		159,924
Reused water	81,951	1,212			?	601	5,723		89,487
(IV) Return flows of water									
To inland water resources				159,924					159,924
(V) Evaporation of abstracted water, transpiration and water incorporated to products									
Evaporation	605	3,433	0	20,686	0	1,703	14,965		41,392
Losses	xx	xx	xx	xx					xx
Incorporated	xx	xx	xx	xx					xx
Return flows	xx	xx	xx	?	xx	xx	xx		xx
TOTAL SUPPLY	92,469	11,511	0	299,866	159,924	5,710	170,340	279,987	1,010,702

Remark: XX represent cells with no data from NWRMP, but for which one may well expect a value from on-going data collections (in later stage of WAVES project).

? Marks the cells for which it is uncertain but a value can be expected.

Table 3. Physical water use table for water (2012 reporting year based on NWRMP in 10^3 m^3)

	Abstraction of water, intermediate consumption, Return flows						Final consumption	Flow to environment	Total use
	Agriculture	Manufacturing	35 electricity	36 water supply	37 sewerage	other industries + Mining +commercial	Households		000 m^3
(I) Sources of abstracted water									
surface Water	xx	xx	xx	150,570	xx	xx	xx		150,570
Ground water	xx	xx		128,610	xx	?	xx		128,610
Green water Rainwater harvesting	xx	?					?		
	807	?				?	xx		807
(II) Abstracted Water									
Distributed water	90,250	8,078	784			4,007	176,061		279,180
For own use	807		xx		xx		xx		807
(III) Wastewater and reused water									
Wastewater					159,924				159,924
Reused water	81,951	1,212			?	601	5,723		89,487
(IV) Return flows of water									
To inland water resources								159,924	159,924
(V) Evaporation of abstracted water, transpiration and water incorporated into products									
								41,392	41,392

								1,010
TOTAL USE	173,815	9,290	784	279,180	159,924	4,608	181,784	201,316	,702

Remark: XX represent cells with no data from NWRMP, but for which one may well expect a value from on-going data collections (in later stage of WAVES project).

    ? Marks the cells for which it is uncertain but a value can be expected.

From the above Tables 2 and 3 the analyses have been made and Figure 2 summarize the findings.

Figure 2 shows that water demand for domestic use is the highest with 49.1% and this is followed by the water demand for production in agriculture use with 46.9%. However, these figures are somewhat inconsistent with other documents where it is mentioned that about **68%**[1] of the country's current annual use of freshwater from rivers and lakes is estimated to be water used for agriculture. This can lead to for example the conclusion that provision of water for agricultural use is an important use of investment funds for water infrastructure. Therefore, information in Figure 2 requires further investigations on available data and/or quantified and well established estimates for certain cells with expected high quantities to overcome current crosses in several cells. Especially as rain-fed agriculture is of major importance in the country and the related data (green water data) are missing in the NWRMP.

For the next step of water accounts compilation, consideration will be taken of rainfall data from other sources such as from Rwanda Meteorogy Agency including an update with data for other and more recent reporting years. Water used and consumed from the different water resources that are distinguished within water asset accounts and the Water PSUT, by for example agriculture and livestock activities, including irrigation, will be taken into account in the process of further compiling the different water accounting tables.
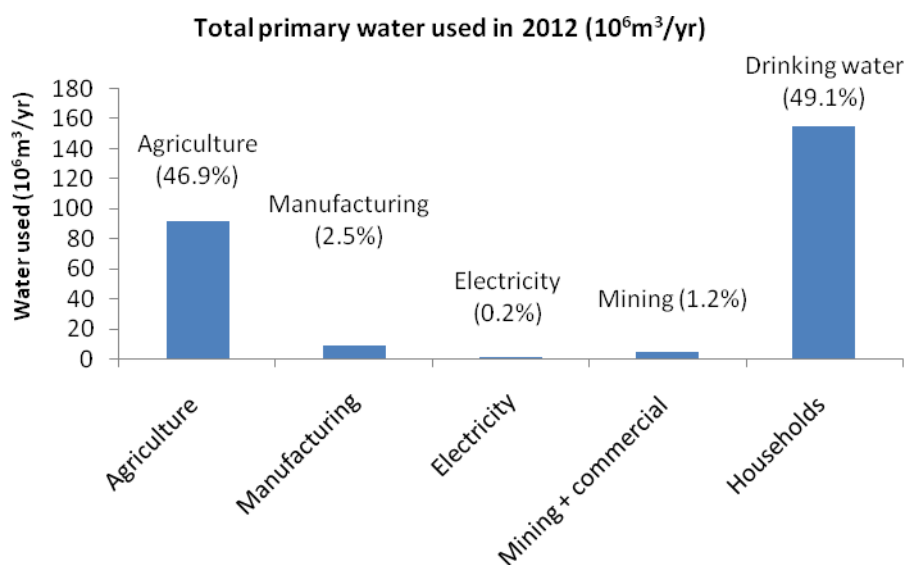

Figure 3. Total primary 'distributed' water used in 2012 in 10^6 m^3/yr

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[1]See https://openaccess.leidenuniv.nl/bitstream/handle/1887/29542/ASC%20Water%20Rwanda%20(3).pdf?sequence=2

- **Water abstracted by WASAC in 2010 to 2014**

Figure 4, shows data on water abstracted by WASAC between 2010 and 2014. The results show an increasing trend which is obvious considering the high population growth and the rapid urbanization. It should be emphasized that this rapid increase is clearly of interest, it might be good news as it is a consequence that access rates and adequacy of supply similarly has improved. It is clear that in Rwanda water supply system attention is paid for improving access and adequacy of supply, WASAC and related, prepares for investing in the water supply system. It makes sense to show for example both trends in domestic water demand (use) and supply by type of water and by economic actor either industry and/or households for example to highlight that currently the system cannot meet the demand and that with future projections in mind additional investments are needed, although yet only partially foreseen. In an attempt to limit a domestic water supply deficit, it is important to develop and adopt a strategy for efficient and sustainable water supply and water resource management. Water accounts would therefore clarify the economic value being generated by water in different uses and then would be able to inform on improved efficient water allocation. NCA Water accounts will be a tool that incorporate these trends quantitatively as reported by WASAC in Figure 4 link it to the other types of water supplied and used and come up with conclusion on policy implementation.
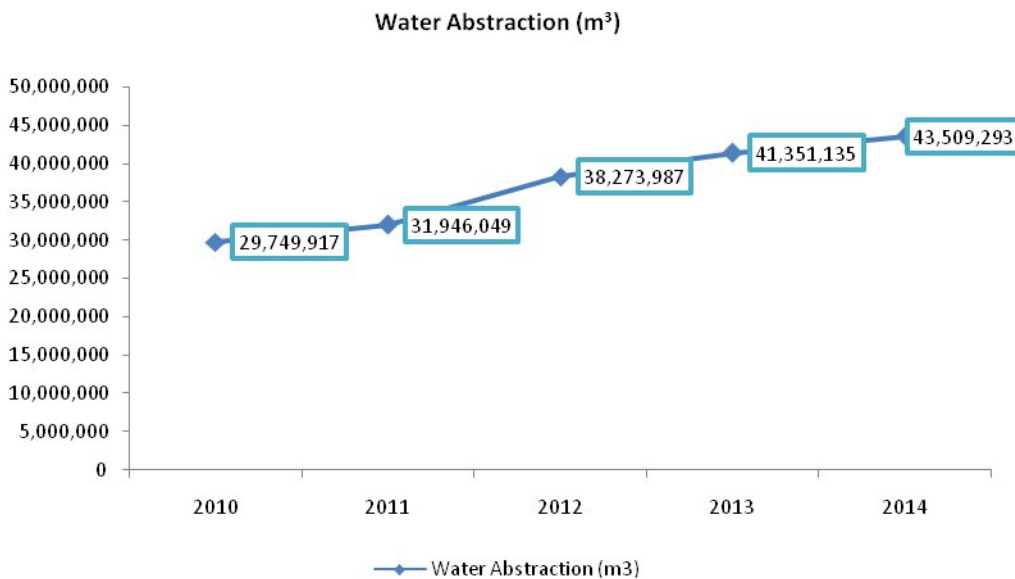
Figure 4. Water abstracted by WASAC (Source: WASAC, 2016)

2.1.3. Study on mining

As per the original plan, a study on mining that analyzes the 'Environmental and Social Costs of Mining and Assessment of Systems and Data Issues for Mineral Account Development' was to be done before developing the mineral accounts. Due to high focuses on land and water in the first period, this study will be conducted from next month (February 2016). Two key outputs are expected form this assignment:

- An inquiry to the data needs and availability for development of Mineral Accounts. And for the purpose of Mineral Accounts compilation, develop the systems needed for organizing and processing appropriate records into a systematic database that can support the actual compilation of the Accounts.
- An analytical framework and rapid analysis of the main categories of environmental, social and opportunity costs associated with mineral development and extraction in Rwanda.

2.2. Communications and Engagement Strategy

Regarding communicating the NCA, different channels and opportunities had been created in order to increase awareness and inform the policy and relevant ministries and institutes at each step. A Communications and Engagement Strategy for NCA Rwanda had been produced and the latter document summarizes the strategic way to communicate what is relevant and needed. NCA as a new concept, but well embedded in international standardized formats for compilation in context of the World Bank and United Nations (Statistics Division), means that implementation is learning by doing that requires better understanding, from the beginning, by all key stakeholders. Starting by the concept, FAQs had been developed and as a first introduction to this concept. The monthly Newsletter which summarizes findings, step by step, had also been developed to inform key stakeholders on the way forward. Showing results and expected results via the monthly Newsletter can generate additional inputs from readers who can address particular issues, raise questions, provide more information and/or make relevant suggestions. Allowing to make the compilation more interactive and the final outcomes more aligned with the several topical and policy areas. This constitutes positive feedbacks given that the stakeholders, i.e. the relevant ministries, related institutes and universities, consumer representatives and non-governmental organizations in Rwanda, will be at the same time contributing and updated on a regular basis. Once the final approval is obtained, these newsletters will be shared with stakeholders & partners via mail and website each month. A country brief had also been developed and posted on the WAVES Website. Communications and engagement has also embarked on engaging various stakeholder agencies by holding sessions in their premises to improve the institutional understanding of Natural Capital accounting. These sessions are also being done to improve the cooperation of the agencies and to get a buy in. on approval, NCA materials will be distributed to all the agencies so far consulted and contributed.

2.3. Capacity Building

The WAVES team composed by Statisticians from Netherlands, the WAVES team from Washington and the Botswana WAVES advisor provided many sessions with subsequent trainings in SEEA-type of accounts compilation on physical and monetary land and water accounts, sessions on institutionalizing NCA using the Botswana model, technical session on Communication and Engagement Strategy. Trainings in aspects such as data analysis, presentation, stakeholder engagement that were highly valued by the local team. The TWG team had received number of hands-on trainings in connect to the development of the accounts, where the focus was mostly on the technical way of integrating gathered data into accounts and how to organise and process these data. Furthermore, the Botswana WAVES advisor played key role in sharing experience towards

institutionalizing NCA given that the lessons she provided created motivation and more commitment to owning the NCA program. The mentioned WAVES team will remain onboard, to provide on a regular basis and according to the need, required   technical support.

2.4.   Policy Analysis

In order to inform the policy at the same time with development of the accounts, a draft policy analysis is undergoing; and the first draft shall be shared soon for inputs from key stakeholders as from the key ministries and institutes to natural capital and this NCA initiative for Rwanda. In different stages of the policy process the current accounts under construction, can both guide in terms of monitoring the actual situation and its recent development as well as to support the process of the design of new policies, In fact, existing data will guide the analysis, but first analysis would be deepened through further investigations.

3.   Observed issues and adopted measures

During this implementation phase, some issues had been observed, but key measure had also been adopted.

3.1.   Time for TWG to work on NCA

The appointed technical staff to work on the development of the NCA and to benefit at the same time NCA trainings, had been very committed and learnt much through this process.
Suggestions regarding including into their job description, the NCA activities, had been made. Furthermore, having terms of references, that describe NCA activities to be accomplished within a certain period, is considered an incentive given that their efforts will be recognized in the performance evaluation. Terms of references are under- development and shall be discussed with concerned people before they are approved. Further, a dedicated unit to take on NCA activities on a daily basis should be established.

3.2.   Role of the NCA National Steering Committee

It has been observed that the role of the National Steering Committee should be reviewed to include clear terms of references during their mandate. This will enable a regular engagement and full ownership of the program as expected. A regular system of NSC meetings shall be instituted and this might be enhanced by regular report on WAVES to other high-level platforms.

3.3.   Awareness

Some gaps in the engagement of partner institutions towards NCA activities have been observed and this had complicated at some points data collection exercise. One of the adopted strategies is to provide introduction and short training on NCA to key persons in all these key institutions in order to keep them aware of the existence of the program and their respective role in sustaining its implementations. Equally to discuss with the different stakeholders the value that well developed accounts can add to the policy makers and the supporting research and knowledge communities. This

way of doing had brought some success in terms of data collection. Furthermore, in order to get all key stakeholders involved, seminars, workshops and short courses (especially at university) are organized within this year.

4. Recent updates

Minagri and Mininfra on board

The NSC and TWG composition has been strengthened to including Ministry of Agriculture and Ministry of infrastructure, considering their subsequent role in both development and future use of the land and water accounts.

5. Near coming events

In 2015 a number of activities and events are organized in the context of the NCA program for Rwanda. These are listed in Annex I.

For 2016 at least the following events are foreseen:
- Exchange visit to Botswana: Probably mid-March, 2016
- Exchange visit to Netherland: Mid May, 2016.

National Workshop to disseminate accounts findings

Participation in National enviromental events

Annex I: NCA main events in 2015

Date	Event	Summary
February 14-20	WAVES and NCA Technical Assistance Mission led by Timothy Brown (Sr. Natural Resources Management Specialist), accompanied Dr. Claudine Uwera (NCA National Coordinator, UR) and with the support of Valence Kimenyi (Economist); Bathilde Jyulijyesage and Mary Jackson (Program Assistants).	Overall Assessment. Rwanda has made substantial progress in the last y Coordinator, and forming and training a Technical Work discussed and agreed on specific measures to accelerate timely and insightful analytical products.
February 19-24	Training on SEEA with focus on Land and Water Accounting	Objective • To develop sufficient training to begin impleme • To develop detailed work plans and deliverable compilation • To Develop a schedule of training visits and biw
February 23-27	1st WAVES Knowledge Exchange Workshop on Ecosystem Accounting	Learning objective • To understand potential entry points to ecosyst management; • To become familiar with the basic concepts of e ecosystems; • To understand the links between ecology, econ accounts and ecosystem accounts; • To start planning for the implementation of eco • To share lessons learned from the ecosystem ac
April 20-24	WAVES and NCA Technical Assistance Mission led by Timothy Brown with participation of Sonu Jain, Communications Specialist, WAVES Secretariat; Rosalind Goodrich, Communications Research Manager, and Paul Steele, Chief Economist, of the International Institute for Environment and Development (IIED, London) and Mr. Collins Mwai, in-country Communications Consultant recently recruited for WAVES Rwanda.	Main objective To consult stakeholders and design a communication a staff and orient a locally-hired consultant, and to make t and water accounts. Wider Engagement of Key Rwandan Stakeholders. A a core group of engaged stakeholders, mainly in Goverr and MINECOFIN are considered high priority, influe MINAGRI more actively at technical and managerial leve building and better dissemination approaches will b development. Communications Strategy Development. The strategy will aim to support the NSC and involved initiative in Rwanda and internationally. Efforts will buil and systems. Specific products will be developed in conc

		ready for the WAVES Global Partnership meeting in Ju... approach focusing on groups of stakeholders to first rais... findings and analytical results to build constituency and ... as a tool for organizing data and as an input to the policy ...
April 22	First TWG meeting	Progress and resolutions • There was no much progress for land and wate... • TWG suggested Country Coordinator to, alwa... NCA, in order to avoid conflicting activities; A regular meeting to be held the last Friday of e...
May 4-15	World Bank mission for NCA technical assistance to Rwanda, led by Dr. Claudine Uwera (NCA National Coordinator) and Dr. Sofia Ahlroth (Senior Environmental Economist).	Aim of the mission: to provide in depth technical assistance on developi... conceptualization and start inventorying data to dev... operational procedures to strengthen the role of Rwand... Overall assessment • The mission was received by the Minister... presented how Botswana is working with... to policy decision making in Botswan... Botswana and thought that the same mo... capacity building on NCA on all levels of go... • Several important steps were taken: Tog... started to assess the data availability for t... physical Asset Accounts for land (land us... Change Matrix. Work plans for the Land an... identified and assigned to TWG members.
June1-June4	WAVES 5TH Partnership meeting and and Country Coordinator/TTL Retreat	Main Objective • To explore opportunities to build collaboration... countries. • To hear from private sector on synergies with ... • To have feature panel discussions on how NCA ...
July 26	Second TWG meeting	Activities and progress • Data on land use through 2012 and 2013 was e... • Data for 2012 are difficult to compile and might... were in LAIS while others were in another syst... • Suggestion that, only 2013 and 2014 data shoul... • Suggestion that MINAGRI, NRA-GIS, RNRA c... member of the technical group • For water, existing data from Water Master Pl...

		MIS) can be used to compile the Physical Table: and institutions and more time would be neede
August 31- Sept. 11	WAVES and Natural Capital Accounting Technical Assistance Mission(Tim Brown, Sofia Ahlroth, Mr. Cor Graveland and Mr. Kees Baas)	Overall assessment • Continuing strong interest for developing NCA • Discussions on which topical policy issues that • A draft Land Use Change Matrices compiled for • Data assessment for Water accounts undertake • Work plans for the Land and Water TWGs furth to TWG members; • Data analysts for land joined the TWG
September 25	Third TWG meeting	Overall assessment • Land Use Change Matrix, that summarizes the t • Investigation to be deepened to get regional a well the level and speed of land use change • Review of the projects plan • Regarding Communications, much progress w and sent for approval, Stakeholder mapping involved in NCA, production of features and more communication kits on Rwanda, Pre stakeholder activities and events to NCA
Oct.19- Oct.30	An implementation support mission for Rwanda Wealth Accounting and Valuation of Ecosystem Services (WAVES) Led by Mrs. Portia Segomerlo	Overall assessment: - Administrative Assistant, Mr Aimable Nyirir Munyaneza (data analyst water), Mr. Swaib Mu been recruited for both land and water account - Land Account has progressed considerably support from the Netherlands Statistics, the T from the WAVES team in Washington. - Progress in water had been slow, but existing WASAC, can for example be used to populate t that of Botswana. - Regarding communicating the NCA, a Commu monthly Newsletter and FAQs had been develo - Original work plan to be reviewed Key recommendations - A strategic mechanism needs to be put in plac and institutionalize Natural Capital Accounting - Regular system of NSC meetings shall be instit to other high-level platforms.
October 26	TWG meeting with WAVES advisor from Botswana	Botswana achievements Institutionalization of NCA; development and productio close links with other programs and agencies; Stake hold

December 4		Rwanda NCA progress

Rwanda NCA progress
- Water data analyst on board to support the T
  populated the Physical Supply and Use Table ;
  users had been identified (WASAC, RAB, REG, M
- Land use change matrix for 3 year (2012, 2013
  to the IBES and SAS questionnaires to capture o

Other updates
1. MINIFRA and MINAGRI already reque
2. Rwanda Natural Resource Authority's

Recommendations:
1. Private sector federation is needed to be i
2. Before the EDPRS 3 is developed, NCA mus
3. At every step of the way, NCA TWG mus
   motivated.

Suggestions for the NCA structure:
a. A unit dedicated to Natural Capital Account to b
b. TWG must validate the results before submittin
c. Link between water and land must be drawn fo
d. There is no need to wait till all data has been ;
   and updates with the data available.
e. Communication can use media for informing wl

December 4

Key recommendations
- TWG members assigned to work on NCA acti
  harmonisation becomes sometimes tricky

Recommendation: Data analysts (water and land) shou
of the TWG members. The Focal person and NCA Cou
Steering Committee Chairperson (Dr. Emmanuel Nk
performance contract of TWG members, to make sure it i

- Difficult access to people of the key partner ;
  agencies, NCA is a new concept that needs to l

Recommendation: TWG members should communicate
staff they would like to work with. Furthermore, NCA co
in each of these key agencies in order to increase aware
the whole process.

- The meeting was also informed on logistics
  conducting NCA duties; such as data collectic
  that NCA team does not have an allocated vel
  to satisfy various needs; this pushes the TV
  making bookings.

Recommendation: The country should borrow from o

		Furthermore, the TWG should submit on time their upda provide necessary logistics. - Communication and Engagement update In communication, the database was already in place ar communication materials produced earlier by the chair were ready for distribution as well as the starter pack. It was agreed that focus in communication should be giv such as data providers. It was further agreed communic data collections.
October 27, 2015	NCA Steering Committee Meeting	Overall assessment Compared to the original plan, marked progress had be the Water Accounts due to hardship of compiling water on the environmental and social costs of mining and a development are to be initiated soon. Regarding communications and engagement strategy for NCA Rwar there is a high need of making more visible the NCA th accounts, a policy analysis on preliminary results is unde Role of the steering committee Important to clearly and define the role of the steering cc
Nov.1-Nov.7, 2015	Musanze Workshop Report to integrate NCA items into SAS and IBES questionnaires	The general objective of workshop was to integrate NCA Recommendations: 1. Prepare and send an official letter from MINIRENA After the approval of NISR of integrating NCA ite MINIREA will validate the integrated items as well a 2. Prepare the 2nd phase of visit to public/private ir visited: ➢ Land account: RTDA, RAB, RDB, RRA NAEB and ins Sector Federation. ➢ Water account: Living water international, large sca UTEXRWA, BMC/Skol, Kabuye sugar factory, Nyab Cotraco and fair construction, Lemigo, Serena and L
Nov16-Nov20	WAVES and Natural Capital Accounting (NCA) Technical Assistance Mission (with Mr. Cor Graveland and Mr. Roel Delahaye)	Overall Assessment and Accomplishments • There is a continuing strong interest for de • A follow-up is given to compilation of the I assessment for Water accounts have been

		use and supply and very important to orga
		taken. Work plans for the Land and Water
		and timelines identified and assigned to th
		joined the TWG and this has clearly speede
		• The mission shows the connection with th
		and RAB has further developed, also the st
		institutions and to first deliveries of data h
		• WASAC will be key in both the provision of
		sector.
		• RDB will be essential in provision of both o
		Business Register (SBR) and for the provis
		industries and sectors and will have to con
		within NISR.
		• From NISR it is of high importance to obtai
		databases, the data they collect via the thre
		and industry (manufacturing) and maybe s
		• The connection with RAB is highly appreci
		Rwanda for both MINAGRI and RAB will be
		• A key priority will be to first obtain the ess
		and assess these data, before going into ad
		monetary data.
		• For monetary data, additional data collecti
		ready to provide WAVES Rwanda with suf
		industry level with some detail (i.e. water)
		• Mineral accounts, for the next mission this
		• From some key institutions like NISR and I
		wider representation is needed.
		• A widening of the representation in the TW
		expertise is advised, so that every mission
		mission can be communicated and get follo
		there in the plenary and trainings meeting
		or that is able to extract the existing data f
		• NISR requires a mandate that shows that a
		the for WAVES / NCA relavant data.
		• Rwanda also works on data collection for f
		tables for forest account eventually as a fo
		the current WAVES project.

Annex II: Project participation

- These Institutions contributed to the NCA Rwanda project in 2015.
- Ministry of Natural Resources
- Ministry of Finance and economic Planning
- Ministry of Infrastructure
- Ministry of Agriculture
- Rwanda Agriculture Board
- Bugesera Natural Rural Region Infrastructure Support Project
- Japan International Corporation Agency Rwanda
- Rwanda Development Board
- National Institute of Statistics Rwanda
- Rwanda Environment Management Authority
- Rwanda Natural Resources Authority
- Rwanda Meteorology Agency
- Rwanda Rural Sector Support Project (RSSP)
- Water for People
- Land Husbandry, Water Harvesting and Hillside Irrigation Project
- Water and Sanitation Corporation
- Rwanda Revenue Authority
- University of Rwanda (College of Business and Economics, College of Science and Technology)