

Advice on integrating environment, climate change and disaster risk reduction into the MASP of the EKN

RWANDA
Desk study



Advisory Report by the Dutch Sustainability Unit

Subject: Advice on integrating environment, climate change and disaster risk reduction into the MASP of the EKN Rwanda

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1. INTRODUCTION

EKN Kigali (Rwanda) needs to submit a new MASP for both Rwanda and a regional MASP for the Great Lakes by 16-10-2013. EKN foresees only minor adaptations to its current country MASP but the revisions of the regional MASP will be substantial. The embassy seeks to better integrate environment, climate change and disaster risk reduction and advice on how best to accommodate these issues (integration of gender is to follow separately later).

EKN asked the Dutch Sustainability Unit (DSU) advice on:

1. Improved integration of environment, climate change and disaster risk reduction into the MASP
2. Identification of multipurpose indicators to be used to report on that integration to DGIS, as well as to identify opportunities to attach Rio Markers to the activities undertaken;
3. Review current activities on integration of environment, climate change and disaster risk reduction and to give concrete recommendations to strengthen these topics where optimization is possible;
4. Improved synergies between the different spearhead programs at EKN Kigali;
5. Specification of the contribution of the national MASP Rwanda to the regional MASP (i.e. the Great Lakes Region) and how these MASPS can mutually strengthen each other.

In 2012 a Sustainability Analysis was conducted and an advice on the MASP Rwanda and the spearheads water and food security was provided (DME-MW-416 and 417). Building on this advice the current advice looks at further integration of environment, climate change and disaster risk reduction (DRR) into the on-going activities (BEMOs provided by EKN). In line with the expected outputs, the DSU takes a practical approach, by providing recommendations for improving the integration of environment, climate change and disaster risk reduction in the MASP and the portfolio of projects with a cost-effective effort, and proposing a set of indicators. The DSU pays attention to linkages with Rio Markers and gender aspects. In addition, the DSU aims to harmonize the themes of environment, climate change and disaster risk reduction, especially in the choice of indicators, as there is much overlap.

2. CONTEXT INFORMATION

Rwanda is a densely populated country with a large and growing population, a high pressure on its natural resources and a heavy economic dependency on agriculture. Expansion of agricultural land is no longer possible, except through wetland reclamation (10% of Rwanda's surface area) and through deforestation of steep slopes. The last decade Rwanda has shown impressive socio-economic improvement by its adherence to a long-term vision, good governance and rule of law. Rwanda's future

socio-economic development is uncertain as its population grows. An important factor contributing to rural poverty and food insecurity is the tiny average size of farming plots (0.7 ha). This situation is economically, socially and environmentally not sustainable. Its Vision 2020 and the Economic Development and Poverty Reduction Strategy (EDPRS) therefore state several ambitions whereby the ultimate goal is a transformation from subsistence to market oriented production, whereby many subsistence farmers leave the country-side and find employment in the cities. Agricultural output has to increase significantly (for food and export) as well as employment outside the agricultural sector. These ambitions are underscored in the mission of EDPRS-2 for the coming years (2013–2017), by which the GoR wants to reduce poverty levels among men and women, malnutrition, gender based violence and other related conflicts at both family and community level¹.

The food security situation has improved as agricultural production has doubled since 2007. However, a growing group of people has limited access to land (in terms of availability and legal insecurity) and depends on job growth in urban areas. There are heavy post-harvest losses (processing, storage and trade need to be improved) and food is not evenly distributed (resulting in malnutrition of women and children). The areas with the highest proportion of food insecure households are in Nyabihu (9.5%), Ngororero (9.5%) and Nyaruguru–Nyamagabe (8.4%), located along the Crest of the Nile that runs from North to South–East in Rwanda. Together they constitute 14% of the total population, but account for 42% of all the households that are food insecure. The most insecure are the rural households headed by female farmers, who produce for subsistence only on tiny pieces of land and with little scope of modernization and/or off-farm employment.

Rwanda is vulnerable to natural disasters emanating from climatic or seismic disturbances (drought, torrential rains, floods, landslides)². In east Rwanda people are complaining that the dry season has become much longer. In the north, excessive rainfall causes land-slides and erosion of fertile land resulting in even less farming space. Furthermore, the second (short rains) season has become less predictable, resulting in reduced harvests. Underlying causes are poor farming practices, deforestation, and environmental degradation among others. Climate change will exacerbate this situation and can have significant socio-economic implications, such as increasing poverty of the already insecure households. For example, higher temperatures result in higher altitudes at which tea and coffee can be grown, which will significantly impact the land available for these export crops, and may result in land use conflicts. Climate scenario's predict an increase in the average annual rainfall by up to 20% (in the period from 1970–2050) and more intense periods with drought and floods.

¹ Rwanda Economic Development and Poverty Reduction Strategy (EDPRS-2, p.xiv)

² Rwanda; State of the Environment report

In Rwanda, water management has been approached from a pragmatic, service-oriented orientation, more than from a sustainable development and utilisation of a finite resource perspective. Until recently Rwanda had few problems in terms of water constraints, but climate change, high usage levels, unsustainable wetland reclamation³ and increased competition for water require urgent attention. The implementation of IWRM policies is lagging behind. The Rwanda Water Scan⁴ notes that political leadership on integrated water resources management is as yet still low, while the focus remains on infrastructure for domestic, industrial and mining water supply, agriculture and hydropower, where sustainability of resource quantity and quality is very much at risk. Furthermore, nearly all waters are trans-boundary requiring negotiations with riparian states in two major basins (Nile and Congo).

3. RECOMMENDATIONS FOR FURTHER INTEGRATION

EKN Kigali has selected two priority areas that are of interest within the scope of this report: Water resources management and Food Security. Furthermore, the EKN contributes to a Dutch regional approach for the Great Lakes Region, with as main purpose contributing to (social, economic and environmental) stability. EKN has stated it does foresee a minor revision of the current national MASP. Hence, the DSU does not suggest new activities but provide recommendations to improve on-going activities if needed. In Appendix 1, the schematic overviews of the two relevant MASP spearheads are presented. The regional approach also involves finding complementarity and synergy between national programmes and the regional programme.

3.1 Spear head food security

For the spearhead Food Security EKN has decided to focus on facilitating an enabling environment for the post-harvest food chain and agri-business. In a recent strategy document (2011)⁵ the GoR clarifies that the strengthening of the linkages between smallholder farmers and the market for both input and outputs will be critical in reducing any negative impacts on resulting social transformation. The rapid increase in food crop production in the recent years thus has also highlighted the need to minimize losses that occur between harvesting and storage, and improved marketing capacities in rural areas.

Food Security Activities

In this paragraph some general recommendations are provided. In general, at the farm level improved, climate-smart production, erosion control and water supply (i.e. the

³ L. Nabahungu; PhD thesis

⁴ The Rwandan Water Scan, 2011, Mission report for EKN

⁵ Strategies for Sustainable Crop Intensification in Rwanda: Shifting focus from producing enough to producing surplus, MINAGRI, 2011.

resource base) are the main concerns from the perspective of environment, climate change and DRR. In order to make such investments sustainable on the long-term and on macro-level also attention is needed at landscape level whereby agricultural intensification and new infrastructure is properly planned (role for IWRM, spatial planning and environmental impact assessment), is not at the expense of crucial water resources or valuable biodiversity and takes into account areas with high disaster risk (e.g. the most food insecure regions with high erosion). Last but not least, throughout an agricultural value chain voluntary sustainability standards (VSS) help to improve production quality and volume to improve farmer incomes and enhance social and environmental performance. The agricultural value chain approach could be more clarified in the MASP, apart from the selection of particular chains, the value chain could be described but also in terms of improvement of production quality and quantity and of farmer incomes. When selecting a particular chain, which farmers are targeted; what is the potential and the capacity of these farmers (small, less small, men, women) to change? And what is to be done to overcome farmers' constraints.

With regard to Food Security output 1 – improved infrastructure to produce, process and distribute food – EKN has defined 4 priority areas (see Figure 2 in Annex 1). Several road infrastructure and production-related programs are already on-going. Processing (to avoid post-harvest losses) and marketing could receive more attention through a more specific targeting of producers. Given the agricultural ambitions of GoR more attention is also needed for integrated fertiliser programs (under the spearhead food security) and increasing energy and water demand (under the spearhead water). Several on-going programs (see digital annex) address the other outputs.

The Crop Intensification Programme of GoR currently depends on the application of inorganic fertiliser to increase crop yields, although these external inputs produce GHG emissions through the fertiliser manufacturing process and the transportation of fertiliser products. The demand for inorganic fertilisers can be reduced by applying an integrated approach to soil fertility and nutrient management, which includes agro-ecology, resource recovery and reuse, and fertiliser from biological sources (enriched composts). An integrated approach can significantly lower inorganic fertiliser demand, reduce GHG emissions (through reduced transport of fertilisers) and increase farm profitability due to reduced input costs for farmers. Such approaches also improve soil structure and the water retention capacity of soils leading to resilient agricultural ecosystems and sustainable food security. Given the potential scale also a role for agribusiness can be supported. A comparable approach for integrated pest management might be an option to prepare the agricultural sector to the foreseen increased vulnerability with regard to pests and diseases.

The priority area “access to reliable and affordable energy with a focus on renewable energy (Hydropower)”, programs can of course be linked to the MASP spearhead water

resources management; especially through the focus on supported investments in water management for (local) hydropower and IWRM for food and energy production. The programs related to production of cooking wood not only result in better access to energy, but also help in the reduction of soil erosion, reduce the risk of flooding and form a potential sink of CO₂ through avoidance of continued tree cutting in natural forests.

Sustainability governance

Natural resources management and land use planning and management are mainly the responsibility of the Ministry of Natural Resources (MINIRENA) with its Rwanda Natural Resources Authority (RNRA) and the Ministry of Agriculture and Animal Resources (MINAGRI) and relates to the Ministry of Local Administration, Good Governance, Community Development and Social Affairs (MINALOC). Decentralisation is however a key element of the EPRS. Given the lack of land and the predominant role of agriculture in the economy, land is considered Rwanda's most important economic and natural asset and thus relates to almost all ministries and economic powers. Climate change adaptation encompasses all natural resources related ministries. Proper governance and inter-ministerial co-ordination is key. Based on the experience of EKN with earlier supported activities (like those mentioned in the digital annex) suggested entry points are: (a) at lower levels with district and community councils (targeting these levels also enhances government accountability and public involvement); and (b) at the institutional structures surrounding specific agricultural production chains (enabling a better targeting of producers).

The review and lessons learned of EDPRS' implementation provides some suggestions for improvement of relevance to EKN's programme. General findings included a need to (a) focus on the different interfaces between the sectors and levels to ensure environmental protection and sustainable management, (b) clarify and strengthen the role of decentralised entities in the EDPRS and (c) prepare tools and guidance for incorporation of environmental protection and sustainable management in decentralized programs. Government institutes have indicated they need tools and guidance on effectively mainstreaming of sustainability, disaster risk reduction and climate change into their plans, budgets and M&E. The spearhead Food Security could improve by providing attention to synergy between different intervention levels (household, landscape and national level). This should be reflected in the intended outcomes and outputs. EKN could support the development of tools and guidance for decentralised levels by their partners to inform others. This would favour also a more participatory inclusion of local actors.

3.2 Spear head Water Resources Management

The outcome of the spearhead Water is "Water resources are sustainably and rationally managed and meet the country's need for socio-economic development". This is in line with the Government of Rwanda's perception of water as a social and economic

development factor. The GoR adopted integrated watershed management as part of its Vision 2020 to achieve the following policy objectives:

1. Reduced water related disaster risks and climate impacts like droughts and floods to protect the economy and the society
2. Protect and conserve water resources of Rwanda in order to enhance its availability for the present and future generations
3. Allocate water resources of Rwanda to the various socio-economic needs on the basis of principles that incorporate efficiency of use, equity of access and sustainability
4. Put in place an effective governance framework and develop human and technical capacities for sustainable management of the country's water resources, including Transboundary waters.

Water Resource Management Activities

EKN is currently developing its spearhead programme and intends to support especially institutional development (see next paragraph). Some considerations are provided to improve activities to be developed later on. First, it should be noted that IWRM does not automatically integrate Climate Change Adaptation (CCA). A good IWRM plan signals climate change risks but does not automatically mitigate these risk sufficiently (e.g. by allocating areas to act as 'buffer zones' and disaster-risk reduction). Given the context of Rwanda, CCA should be a strong component in any IWRM plan.

IWRM is a long-term process involving many societal actors and thus also has different implementation possibilities depending on the country context. In Rwanda this might be different from the Netherlands and such differences should be clarified (e.g. what are indicators for proper and acceptable IWRM implementation?).

DG EWSA is planning to increase current hydropower capacity of ca. 60MW to 340 MW (by 2018). There are large-scale plans for Nyabarongo, Rusizi, Akanyaru, Rusumo falls, and for dozens other more privately owned smaller hydro-plants. Because of the already stressed water bodies and river basins in Akagera, Nyabarongo, Mukungwa, Rukarara, Akanyaru Rivers and Rusizi River and adjacent water bodies in terms of ecological health and water quantity and quality, it is of utmost importance that the individual and combined impacts of the numerous developments is taken into account. Another element of the energy sector that has already drawn Dutch private sector interest and not mentioned by EKN is Rwanda's intention to develop their huge geothermal potential. The successes Kenya has reached are exemplary for other countries in the rift valley systems of East Africa. Now Rwanda wants it too. Sustainable geothermal exploitation also depends on IWRM (especially groundwater component) and has generally far lower environmental impact. An SEA and IWRM combined with

environmental flow management helps to guide and plan such developments within a watershed. EKN Maputo has experience with this approach in their program with WWF (World-wide Fund for Nature) in the Zambezi river.

The Government of Rwanda, through the Ministry of Agriculture and Animal Resources (MINAGRI), is keen to transform the promise offered by modern irrigation technology from potential into reality in its pursuit of food security. In its Irrigation Master Plan (IMP) the GoR aims to transform a total of 589713 ha to irrigated agricultural land through an efficient and sustainable exploitation of both surface (runoff, rivers and lakes) and underground water resources by promoting irrigation in its various forms.

Because agriculture is the main water user, EKN could support identification of business opportunities – both for local and international businesses – in water use and management for agriculture (DME-MW-416). An interaction might be facilitated with the agri-companies in the FS-programme that have the added challenge of integrating Corporate Social and Environmental Responsibility (CSER) if they consider exporting to Europe. Interesting examples of public-private sector co-operation are around Lake Naivasha in Kenya (supported by EKN Nairobi) and in the Central Rift valley of Ethiopia where horticultural companies co-operate with local government and other stakeholders on water management.

Sustainability governance

The focus of the embassy support in the first two years aims to improve sustainability governance by policy and institutional development, i.e. Important results will be developed in the areas of implementation capacity, a proper institutional setting, an IWRM Master Plan and Investment Plans for the water sector. Stronger political leadership would enhance the implementing authority of the directorate of water within the Rwanda Natural Resource Authority, part of the Ministry of Natural Resources (MINIRENA). The Sustainability Analysis (DME-MW-41) already provided some suggestions such as the formulation process of the IWRM master Plan providing an opportunity to specify relevant sustainability concerns (with special attention to environment and climate) integrate these and enhance political support for implementation. This conclusion is supported by the SEA scoping report (“scoping advice for the Dutch IWRM Support Programme”). The scoping advice for the SEA report also advises to develop management plans for each catchment to ensure “ownership” of the catchment development plans of all relevant stakeholders. Care should be taken that local users and producers have their stake in the planning.

Relation with regional MASP Great Lakes

EKN is working on a revision of the regional Great Lakes program, the details are yet not known. To enhance regional co-operation on water resources the Akagera basin (including Rwanda and Burundi, but also research stations in DRC might be integrated) might be considered as a region for interesting activities. In the basin already Dutch expertise is present at various institutes and strong linkages can be identified with climate change and agriculture/cattle ranching challenges. In addition, it forms the

water source for Lake Victoria, which in turn is important for fisheries (also with a Dutch interest).

4. SUGGESTIONS FOR IMPROVED SYNERGIES BETWEEN THE SPEARHEAD PROGRAMS

Suggestions for an improved synergy between the different spearheads are:

Output 2 (WRAM): EKN could support from the start that water, land use, ecosystems and climate change data are used in a coherent manner by facilitating, in collaboration with REMA, cost-benefit analyses of different water management options, in support of a sustainable (food secure) economy. As such this project does not only results in coherent use of information but also in capacity building on climate change. These should be in line with the expected changes of the water catchment developments and different climate scenarios. The need for electricity is high but focussing on hydropower with insufficient basin management and sustained monitoring will have major up and down stream socioeconomic implications hindering poverty alleviation.

Output 3: rehabilitation and development of watersheds could have a clear link with the food security program. This can be realised through the use of decentralisation expertise (from food security program) for implementation or IWRM at catchment level.

Several water bodies in the region are so-called biodiversity hotspot with extreme high endemism and are economically important fisheries resources. EKN's IWRM targets might be linked/combined with the targets defined by on-going inland delta and fishery projects.

In the typical multi-sectoral complexity of water management, the Dutch approach with Water Management Authorities can be interesting for Rwanda but the focus must remain on the water (resource) users. The experiences of Rwanda with multi-stakeholder processes at local and district seem fertile ground for IWRM.

5. RECOMMENDATIONS FOR THE ACTIVITIES (BASED ON THE BEMO'S)

In the Sustainability Analysis for Food Security (DME-MW-417) already some specific suggestions for several activities were made on Food Security as well as for Water in DME-MW-416. **Specific comments and recommendations per on-going activity** are presented in a separate comprehensive, digital annex (Excel sheet, which can be supplemented by the gender experts later on).

6. INDICATORS

This advice provides preliminary suggestions for indicators, for the embassy to monitor and report on DGIS requirements regarding environment, climate change and disaster risk reduction. This advice has so far been based on the provided documentation i.e. the MASP, the Bemos, the result chains of EKNs, the result matrix on Food security and the DME memo on water⁶. Rio Markers are used by DGIS to evaluate project proposals to be fundable as climate change adaptation and mitigation programmes⁷. The DSU proposes indicators that are logically derived from the Rio Markers to allow current and future programs to be monitored and evaluated on similar criteria. The generic indicators proposed below integrate environment, climate change and disaster risk reduction (Table 1). Some of the listed indicators will also be proposed for the regional MASP, so that results can be compared and aggregated, and the relative contribution of each MASP can be assessed (something the DSU recommends strongly is to assess and report on the impact of the EKN Programmes also at higher levels of scales to show relevance and impact). The cross-comparison may also show certain gaps or opportunities for future activities.

The eligibility criteria of the OECD/DAC state that the contribution should be verifiable through the provided documentation. The current assessment of the Rio Markers is based on the Bemos so it might be possible that specific M&E reports provide more information. Some projects already include relevant activities but these may need to be adjusted if more specific project documentation becomes available.

In table 1 the DSU has made a distinction between household level indicators and macro (sub-national, national or regional) level indicators. Remaining questions that still need to be answered are (i) how can the proposed indicators be specifically measured, and (ii) who will be responsible to do so, will this be the EKN and/or the projects funded by the EKN? On the question of responsibility, there are different options for the EKN, which differ for the household and macro level indicators:

- 1) 'Do nothing': Already approved projects go on as defined and do not include activities to monitor the proposed indicators, nor will additional activities be defined (beyond the projects) to collect such information (e.g. by national institutes). While some projects conduct activities with a certain relation to the proposed indicators, other do not. The EKN reports to DGIS based upon the M&E reports submitted by the projects and thus does not fully address the various

⁶ DME –Water unit memo on water resource management indicators of 22 Jn. 2013

⁷ OECD, 2011. Handbook on the OECD-DAC Climate Markers

climate change and environment concerns raised and reduce the potential role that the EKN's can play at the different levels of influence.

- 2) 'Integrate': In case this option is chosen, EKN has the following options:
 - a. On household level indicators, the options are to ask relevant projects (i) to integrate monitoring of the proposed household level indicators in their M&E system (for example report on soil conservation measures disaggregated by gender), or (ii) projects request a (local) consultant to carry out a survey on the proposed indicators (baseline + survey after some years);
 - b. On macro level indicators, it is not realistic to expect that projects collect these data, so the options would be (i) to support a scientific institute to collect relevant data (if not available) and provide capacity support to these institutes to do this in a reliable manner, or (ii) to request a consultant to gather available data and aggregate and analyse the data at one moment in time.
 - c. Note that in most cases macro level indicators will need some sort of ground-level verification whereby local-level surveys will be required. Also, aggregation of household level data collection will generate insight in macro level data.

Table 1. Potential primary Indicators.

Purpose: to monitor and report on sustainability – climate change, environment and disaster risk reduction – on macro-level (relates to the outcome level of the result chain) and on household / project level (to improve on-going activities). This relates to ‘sustainable and inclusive growth’ (‘Wat de wereld verdient’, 2013) and the targets / result areas of the result chains of the MASP. EKN is expected to annually report on the overall outcome and its sustainability component and Rio Markers, to inform DDE, DME, and IOB on the contribution by EKN to the spearheads (and provide input on the response to the Motie Ferrier).

Entry points: spearhead Food Security and their underlying activities.

¹**Note:** the Units should be disaggregated for gender, such as women-led farmer households and other vulnerable groups.

Subject	Level	Indicator	Unit	Link to targets / result areas:	Source of information ¹
Macro (sub-national / provincial, national or regional) level					
Environment and water	Macro and regional	Area of ecosystems – agricultural lands, forest areas, natural areas, water catchments– that is managed for long-term preservation of the resource base, socially acceptable and economically viable.	Ha or km ² , # sustainability or IWRM plans	‘Ensure environmental sustainability’	National and/or regional statistics
Environment, food security and trade	Macro	Traded volume of selected agricultural value chains, which integrate sustainability and gender based on sustainability standards.	Metric tonnes, number of producers ¹ and % total	‘More efficient markets and improved business climate’	National and/or regional statistics (based on household surveys)
Water and food security	Macro	Proportion of total water resources used for agriculture (agricultural water productivity)	Kg product per liter water applied. Per	‘Increase in sustainable food production’	National and/or regional statistics

			value chain		
Climate change and environment	Macro and regional	Area of national and cross-boundary ecosystems with important resilience services and sinks and reservoirs of GHGs: managed forest and other ecosystems, afforestation, reforestation, and restoration of degraded land	Ha or km ²	‘Ensure environmental sustainability’	National and/or regional statistics
Climate change, DRR and environment	Macro	Number of administrative units that adopt a process of developing local spatial land-use plans that take into account limitations of cropland expansion, priorities for erosion control, and for rehabilitation of degraded lands	Number	‘Increase in sustainable food production’ and ‘Ensure environmental sustainability’	National planning departments
Climate Change and DRR	Macro	Surface area of national food insecure regions.	Ha or km ²	‘Increase in sustainable food production’	National and/or regional statistics
Household level					
Environment, food security and trade	Household	Farmers that integrate sustainability and gender in selected agricultural value chains which are based on sustainability standards.	Number, % of producers ¹	‘More efficient markets and improved business climate’	Project or local partner
Environment, climate change and food security	Household	Farmers that have been trained on good agricultural practices (GAP), especially more sustainable farming techniques and climate smart cropping systems	Number, % of producers ¹	‘More efficient markets and improved business climate’	Project or local partner
Water and food security	Household	Number farmers that increase water productivity in relation to agricultural yield /	Number of producers ¹ ,	‘Increase in sustainable food production’	Project or local partner

		ha , e.g. for the selected value chains.	Kg product per liter water applied. Per value chain		
Climate Change and DRR	Household	Farmers adopting climate-smart and sustainable agricultural practices (e.g. resistant species, anti-erosion measures, water saving irrigation), or area with such measures applied	Number of producers ¹ , Ha or km ²	'More efficient markets and improved business climate' (Project or local partner
Climate Change and DRR	Household	Property (houses, fields) destroyed through flooding, land sliding, etc. in the region	Ha or km ² or US\$	'Ensure environmental sustainability'	Project or local partner

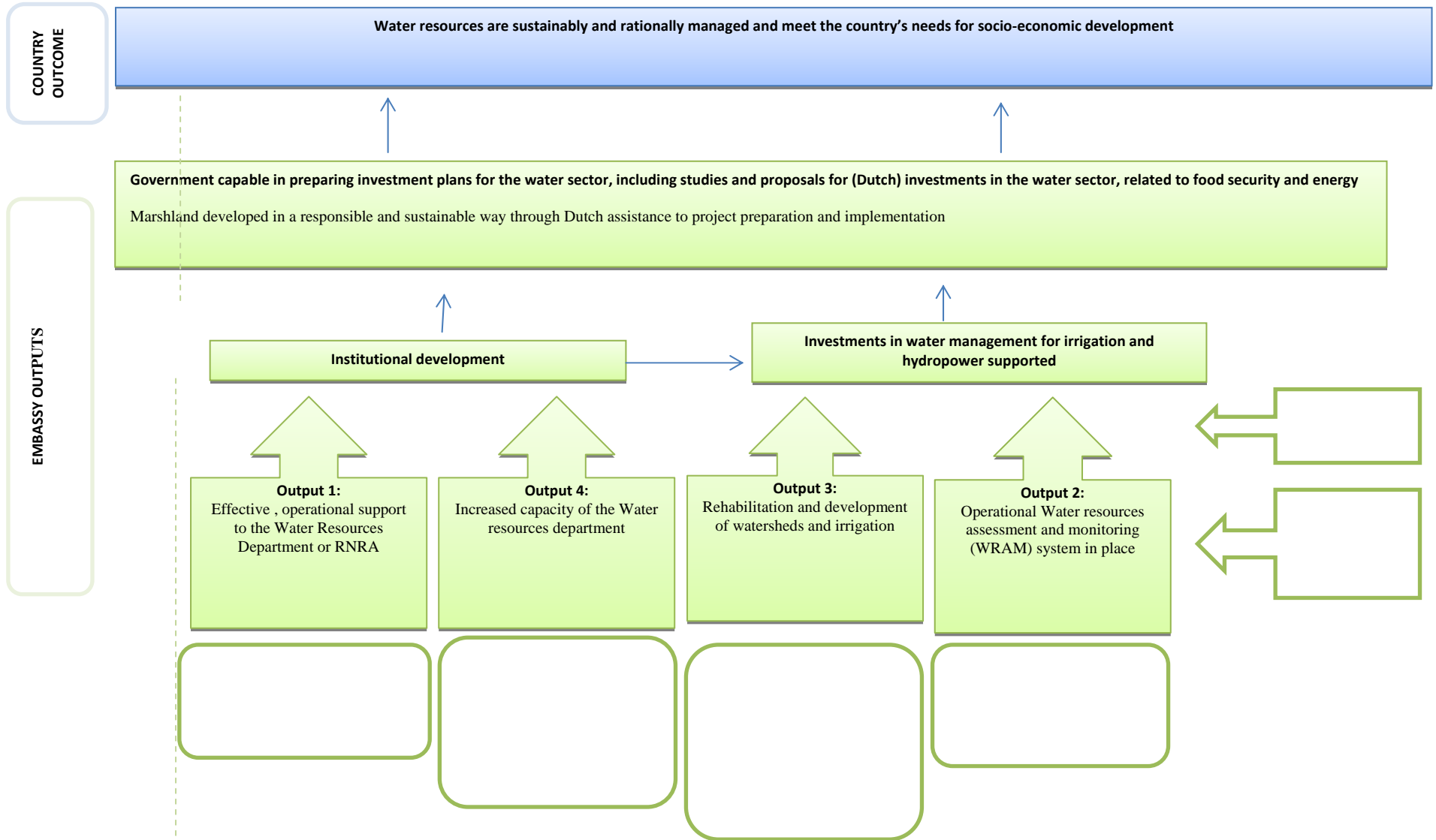
* Sources of information depend on the level of integration of MASP supported activities into the national programmes. Possible sources are reports from different ministries and sub national institutes, and Dutch projects. On project-level, sources are reports preferably from existing partnerships or collaboration projects. It is also possible that another projects conducts these activities and thus their M&E reports would be used.

* Food Security: On a more detailed level, indicators can be defined based upon the Food Security pathway scheme presented in the 2011 report by IOB on "Improving Food Security" (Report 363, page 24).

* Water Resource Management: On a more detailed level, indicators can be defined based upon the DME-Water Unit memo on water resource management indicators of 22 January 2013.

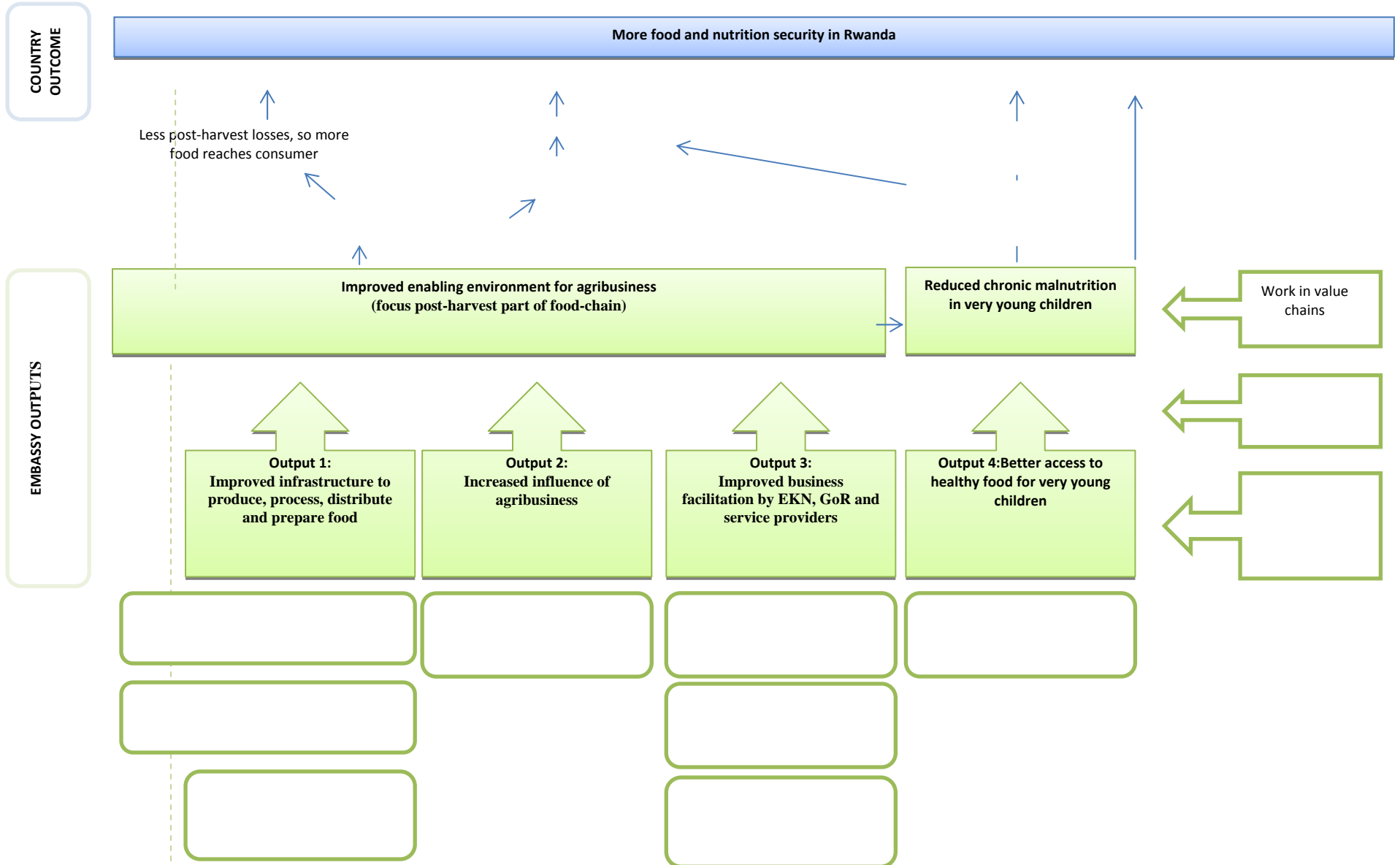
APPENDIX 1.A

SCHEMATIC OVERVIEW OF SPEAR HEAD WATER RESOURCES MANAGEMENT OF MASP OF THE EKN KIGALI



APPENDIX 1.B

SCHEMATIC OVERVIEW OF SPEARHEAD FOOD AND NUTRITION SECURITY OF THE MASP OF THE EKN KIGALI



APPENDIX 2

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