



Nyabugogo Catchment Plan (2018-2024)

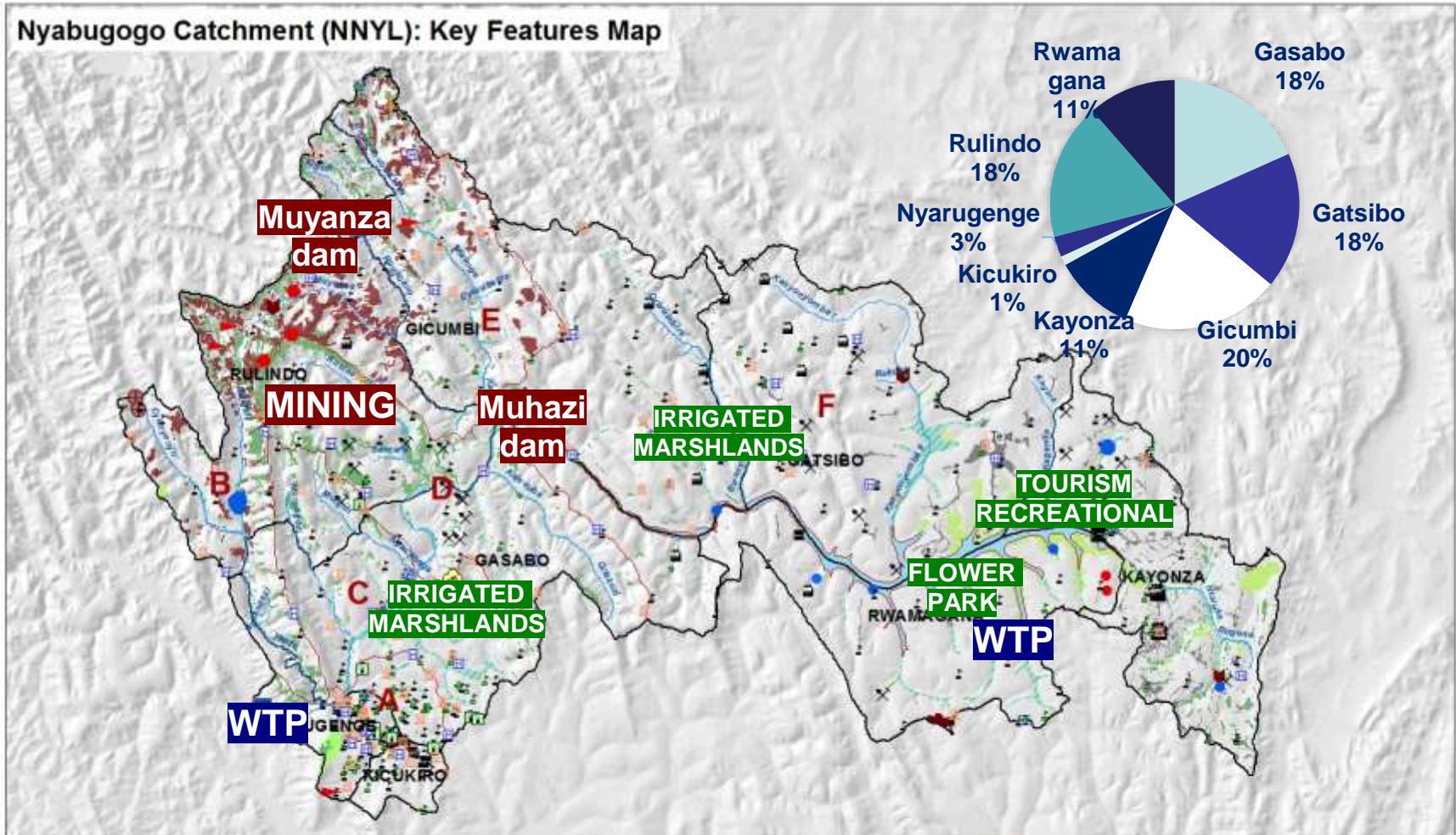
Water Conference

20-21/03/2018



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Description



Legend

River	District Hospital	Fishing	Stevia Plantation	Muhazi lake
District Boundary	Health Centre	Industry	Terraces	Wetlands
Subcatchment Boundary	Trade Centre	Nduba Landfill	Settlement	Forest
	Primary school (203)	Pourtry	Ghembe Refugee Camp	Grazing Area
	Secondary school (67)	Mining	Industrial Zone	
	Tertial education (8)	Power / Electricity Generation	Dam	
	IDP Model Village	Water Treatment Plant	Gishari Flower Park	
	Hotel			

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Description (cont')

- Nyabugogo is a level 2 catchment.
- Composed of 8 districts (Rulindo, Gicumbi, Gasabo, Kicukiro, Nyarugenge, Rwamagana, Kayonza)
- Total area: 1,661 km²
- Population: 1,355,222
- Lake Muhazi is the largest water body in the catchment, it drains to Nyabugogo river which is one the main tributaries of Nyabarongo.
- The highest point of the catchment is at 2,280m, steep slopes mountains in the north-western part, hills with gentle slopes in the eastern part.



Key issues

- Degraded area causing soil erosion (Rwamagana, Rulindo, Gicumbi)
- Flash floods (Nyabugogo, Mwange)
- Poor drainage of storm water around urban area
- Pollution of water courses from industrial waste and human activities (garages) CoK
- Sedimentation of rivers (Rusine river) from mining sites and quarries (Gicumbi, Rulindo)
- Poor solid waste management systems (urban)
- Limited water resources in Lake Muhazi for future development

Existing Muhazi dam (Rwesero)



Gicumbi steep slopes



Quarries and mining



Mpazi drainage/ Nyabugogo



Gikondo industrial zone floods



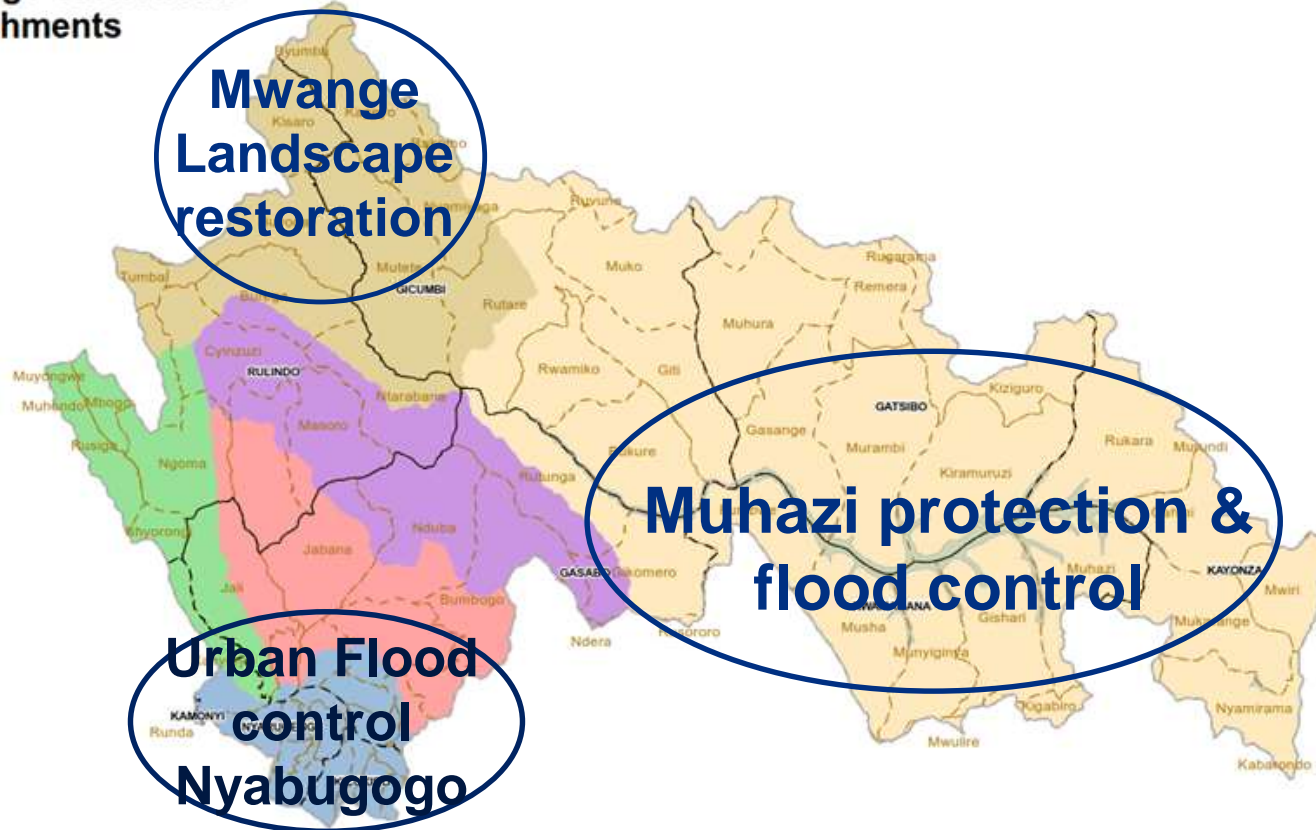
Key Opportunities and Economic drivers

- **A_Mpazi:** Green urban development for flood control and in green development wetlands
- **B_Yanze:** water tower, horticulture
- **C_Nyacyonga:** mining/quarries construction material Kigali, horticulture/ irrigated rice
- **D_Rusine:** Mining quarries construction material Kigali/ irrigated land (rice, sugarcane)
- **E_Mwange:** Muyanaza dam, hillside irrigation
- **F_Muhazi:** Lake Muhazi for Tourism, fish farming, horticulture



IWRM Packages

Nyabugogo catchment:
Sub-catchments

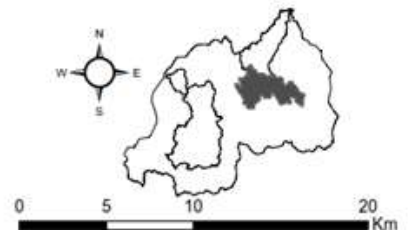


Legend

- Catchment Boundary
- Districts Boundaries
- Sector Boundaries
- Lake Muhazi

Sub-catchments

- A: Mpazi/Rugunga
- B: Yanze
- C: Nyacyonga/Rufigiza
- D: rusine/Kajevuba
- E: Mwunge/Rusumo
- F: Muhazi



IWRM Packages/ components

- I. **Landscape restoration, farmland improvements and rainwater harvesting in Mwange sub-catchment:** Landscape rehabilitation of steep slopes and farmland in Mwange sub-catchment; Storm water management from Gihembe refugee camp and roads through Rainwater harvesting and improved drainage.
- II. **Protection of Lake Muhazi and flood control downstream of the catchment:** Landscape rehabilitation, Promotion of non-consumptive water use through fish farming; Promotion of efficient water use through small scale hillside irrigation for horticulture development; Support Multi stakeholders' platform of Muhazi water users
- III. **Urban flood control and Nyabugogo Wetland restoration in Kigali:** Enhancement of water retention and conveyance capacity of Mpazi channel; Restoration of wetlands



Conclusion

- A landscape restoration Project in Gicumbi District is under procurement process
- Feasibility study of Muhazi multipurpose dam is available
- IWRM packages were validated by the PSC
- Feasibility studies of selected IWRM Packages to follow
- Alignment of CP in national and districts plans (ongoing)



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