



Provinsi Gorontalo

WASTE WATER MANAGEMENT IN GORONTALO PROVINCE



BUDIYANTO SIDIKI, S.SOS. M.Si
Regional Secretary of Gorontalo Province



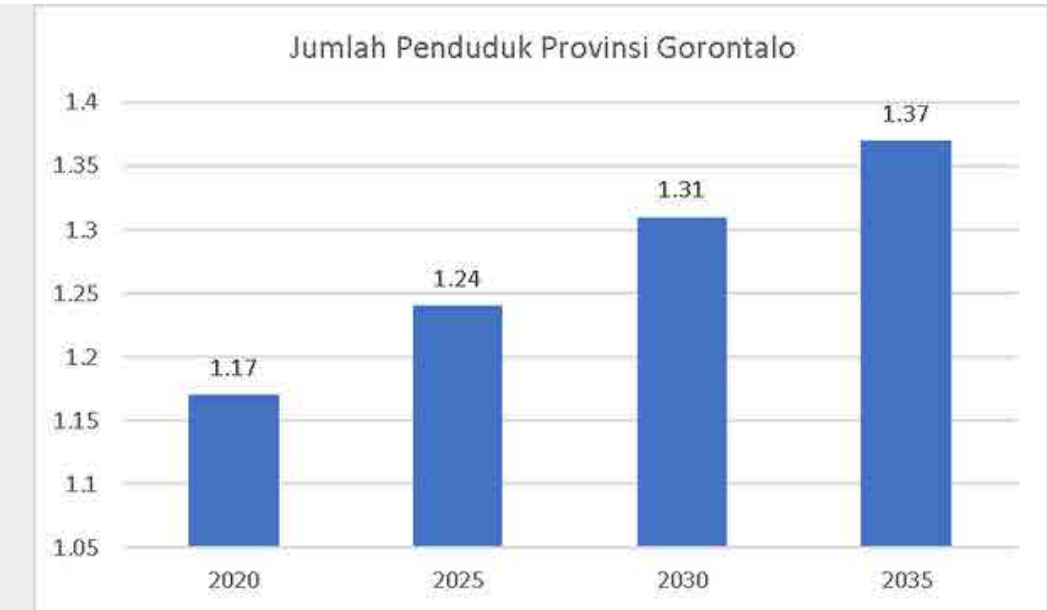
Present Condition

source : BPS Provinsi Gorontalo, 2023



Population Growth

The population of Gorontalo in 2020 was 1.17 million people. According to BPS, the population will increase by 201,31 thousand people to reach 1,37 million people in 2035. The average annual population growth rate from 2020 to 2035 is 1.07 percent



Regulation

The Domestic Water Waste Management System (SPAL-D) of Gorontalo Province is in the stage of formulating the master plan. All Districts and city have sewage treatment facilities (IPLT). North Gorontalo District, Pohuwato District and Gorontalo City have regulations regarding domestic waste water management.



Sanitation

There are still 0,07 percent of the population who do not use proper sanitation facilities. There are 11,16 percent who do not have access to the facilities. (Source : BPS Gorontalo Province)

Types of toilets used by Head of Households in 2022

Types of Toilets	Percentage
Sharing/ Komunal	24,35 %
Semi-permanent Healthy Toilet (JSSP)	1,33%
Permanent Healthy Toilet (JSP)	59,94%
SPALD-S	85,62%

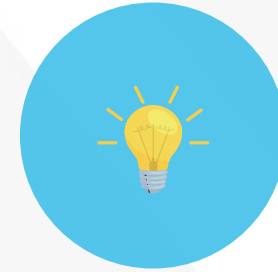
ACHIEVEMENTS OF HOUSING & ENVIRONMENTAL INDICATORS

RURAL AREA

URBAN AREA

98,48%

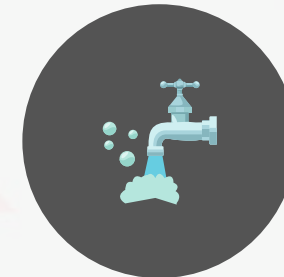
Electricity



100 %

Safe Drinking Water

93,86 %



99,04 %

Clean Drinking Water

82,71 %



94,30 %

Toilets

60,62 %



75,77 %

Source : BPS Provinsi Gorontalo, 2023

Safe Drinking Water: consists of piping, rain water, drilled wells/pumps, protected wells and protected springs, as well as if the water source of drinking and packaged/refill water, where the source for washing/cooking/bathing always uses rainwater, drilled wells/pumps, protected wells and springs

Clean Drinking Water: Comprises packaged water, refill water, piping, and well water/pumps, protected wells, and protected springs) with a distance to the nearest wastewater/dirt/sewage storage location >10 m.

MINIMUM SERVICE STANDARDS

The implementation of the Minimum Service Standards (SPM) is regulated by the Minister of Home Affairs Regulation Number 59 of 2021.

The provision of domestic wastewater treatment services in the inter-district/city regional area is the authority of the provincial government. Meanwhile, the authority of the district/city government is the provision of domestic wastewater treatment services.

The basic service target is for 100% of residents to receive these services.

REGULATION

WASTE WATER TREATMENT

TARGET

SPM TARGETS FOR SPAL

The services of Wastewater Management Systems and related services have been set as targets in development implementation. This is both at the global level, agreed upon by each country through the 2030 SDGs/TPB Agenda, and in documents such as RPJPN and the Regional Development Plan of Gorontalo Province 2023-2026

SDGS/TPB

- These basic services are one of the indicators for Goal 1 No Poverty, with the target that all communities, especially the poor and vulnerable groups, have equal rights to access basic services. The target of Goal 6.3 is to halve the proportion of untreated waste

RPJMN 2019-2024

- Households occupying dwellings with access to adequate (domestic wastewater) sanitation: 90% safe and 15% secure.
- The number of households served by the Centralized Domestic Wastewater Management System (SPALD-T) at the settlement/city/regional scale: 3 million households.

RPD 2023-2026

In the Regional Development Plan 2023-2026 document, the target is to achieve a sanitation coverage percentage of 83.01% by 2026.

THE DOMESTIC WASTEWATER MANAGEMENT SYSTEM (SPAL-D) OF GORONTALO PROVINCE

Gorontalo is currently in the process of preparing the Master Plan for Domestic Wastewater Management System (SPAL-D) as part of the SPAL-D planning process. The drafting of the master plan is scheduled to be completed this year.



MASTER PLAN

The SPALD Master Plan, as stipulated in Public Works Minister Regulation No. 4 of 2017, is established for a period of 20 years and can undergo a review every 5 (five) years



PROCESS

A survey was conducted in September-October 2023, and the presentation of the draft report was carried out on November 9, 2023.



FINAL DOCUMENT

The cross-district/city SPALD Master Plan is determined by the Governor in accordance with their authority

POHUWATO DISTRICT

Distribution of IPAL in Pohuwato District

- There are 6 SANIMAS in the Marisa, Paguat, and Duhiadaa Subdistricts

Types of Toilets Used

Type	House hold	Prosentase
Permanent Healthy Latrine (JSP)	13.857	51,56
Semi-Permanent Healthy Latrine (JSSP)	2,037	7,58
Shared	7,409	27,57
Total	26.878	86,70



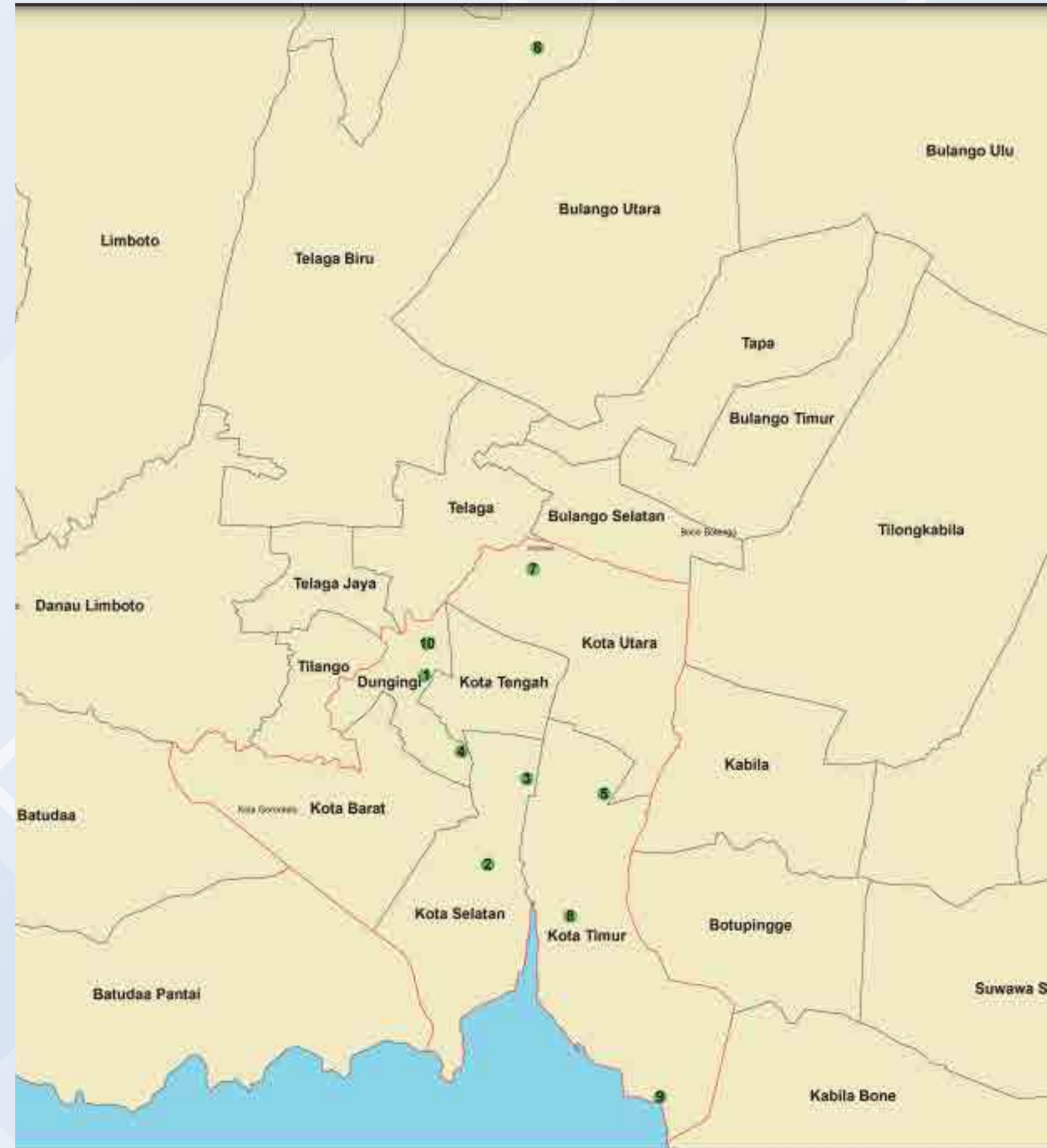
KOTA GORONTALO

Distribution of IPAL in Gorontalo City

- There are 10 SANIMAS di Gorontalo City

Types of Toilets Used

Type	Household	Prosentase
Permanent Healthy Latrine (JSP)	13.857	88,96
Semi-Permanent Healthy Latrine (JSSP)	2,037	0,03
Shared	7,409	3,04
Total	26.878	92,02



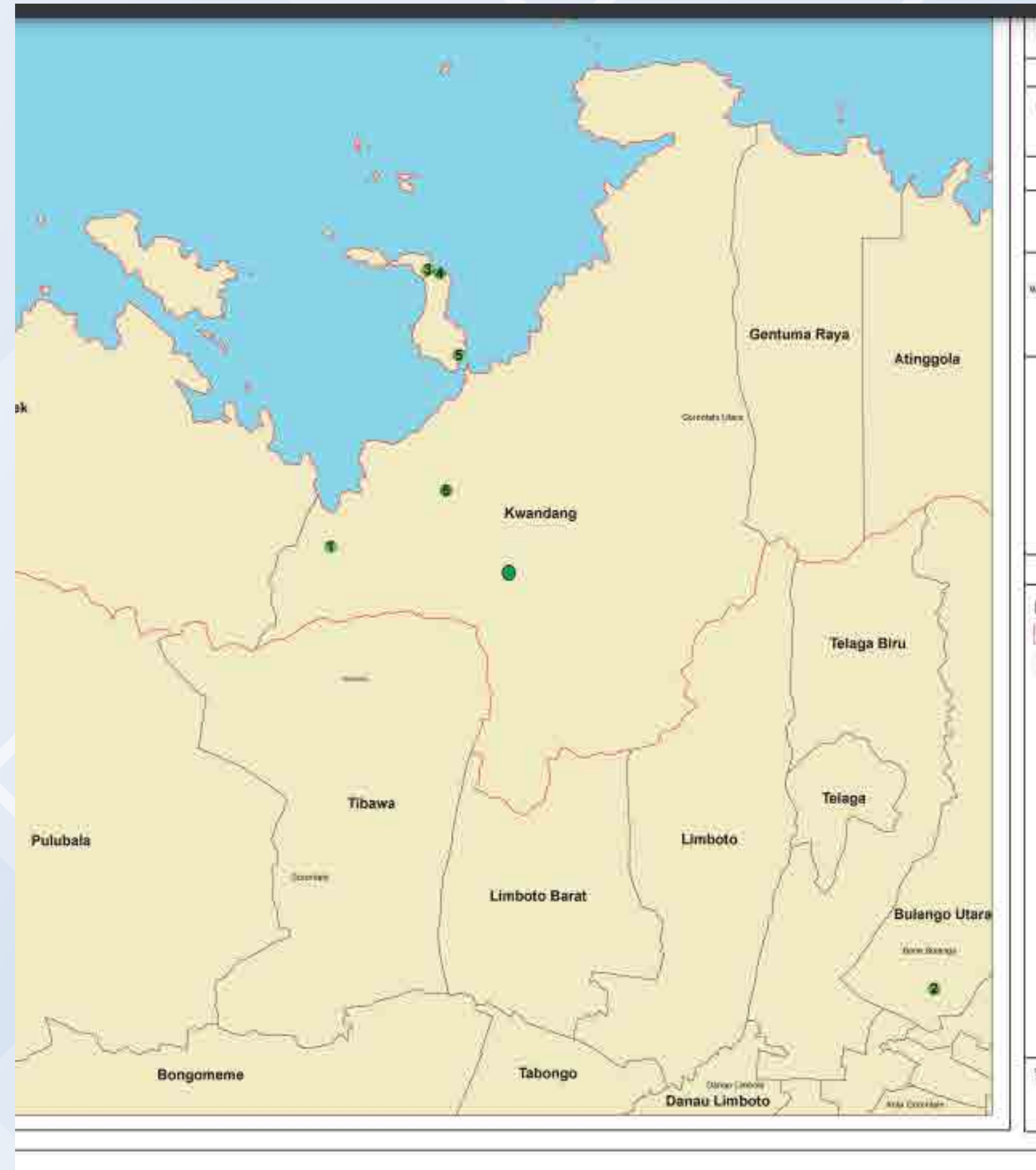
GORONTALO UTARA DISTRICT

Distribution of IPAL in North Gorontalo District

- There are 6 SANIMAS in North Gorontalo District

Types of Toilets Used :

Types	Household	Prosentase
Permanent Healthy Latrine (JSP)	10.813	58,05
Semi-Permanent Healthy Latrine (JSSP)	1.487	7,98
Shared	3.861	20,73
total	18.626	86,77



BONE BOLANGO DISTRICT

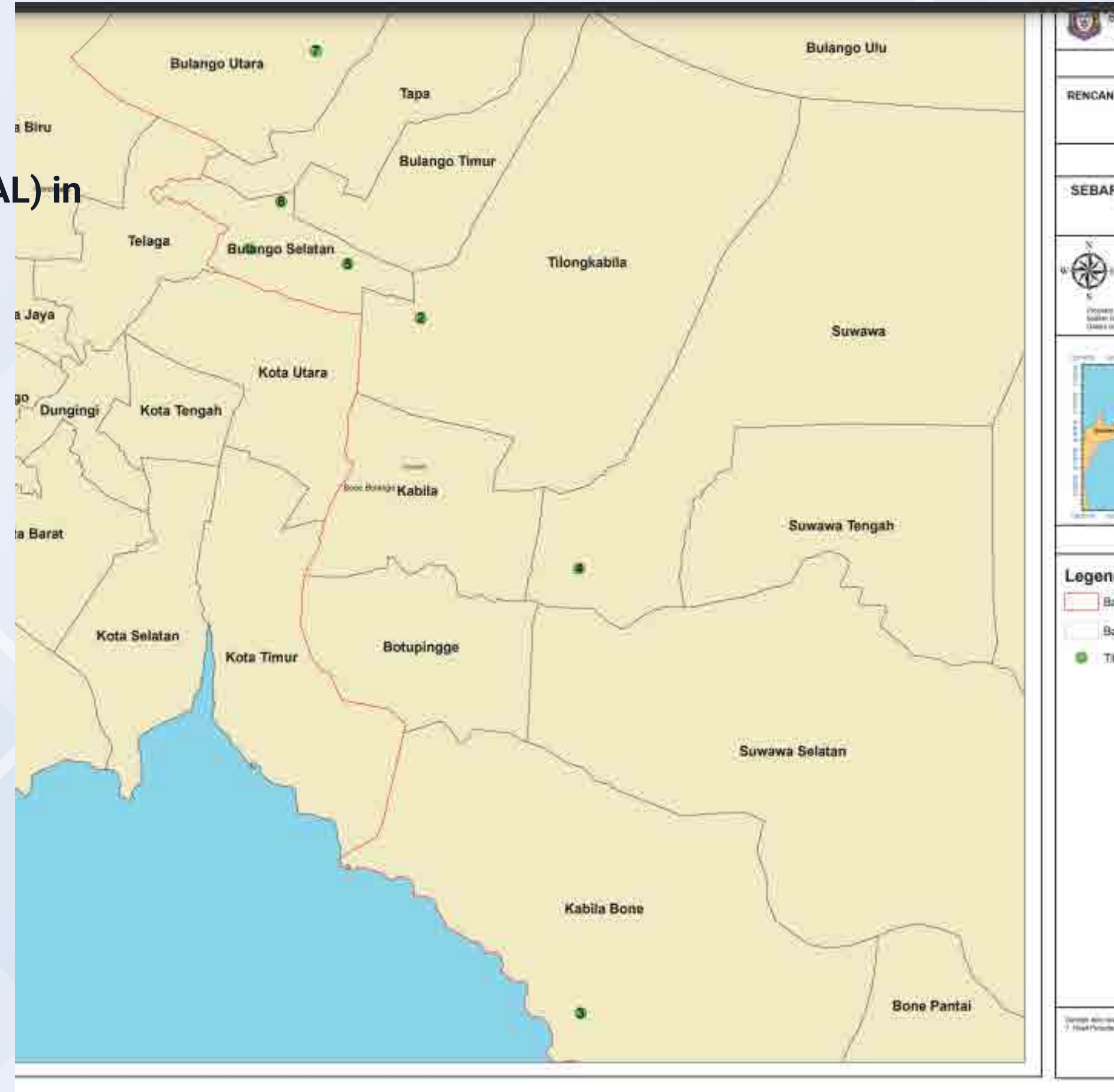
Distribution of Settlement Domestic Wastewater Treatment Plants (IPAL) in Bone Bolango District

- There are 7 SANIMAS in Bone Bolango District

Types of Toilets Used

Types	Household	Prosentase
Permanent Healthy Latrine (JSP)	8.989	41,52
Semi-Permanent Healthy Latrine (JSSP)	3,166	14,62
Shared	4,706	21,73
Total	21,652	77,87

Sumber : BPS Prov Gorontalo 2023



GORONTALO DISTRICT

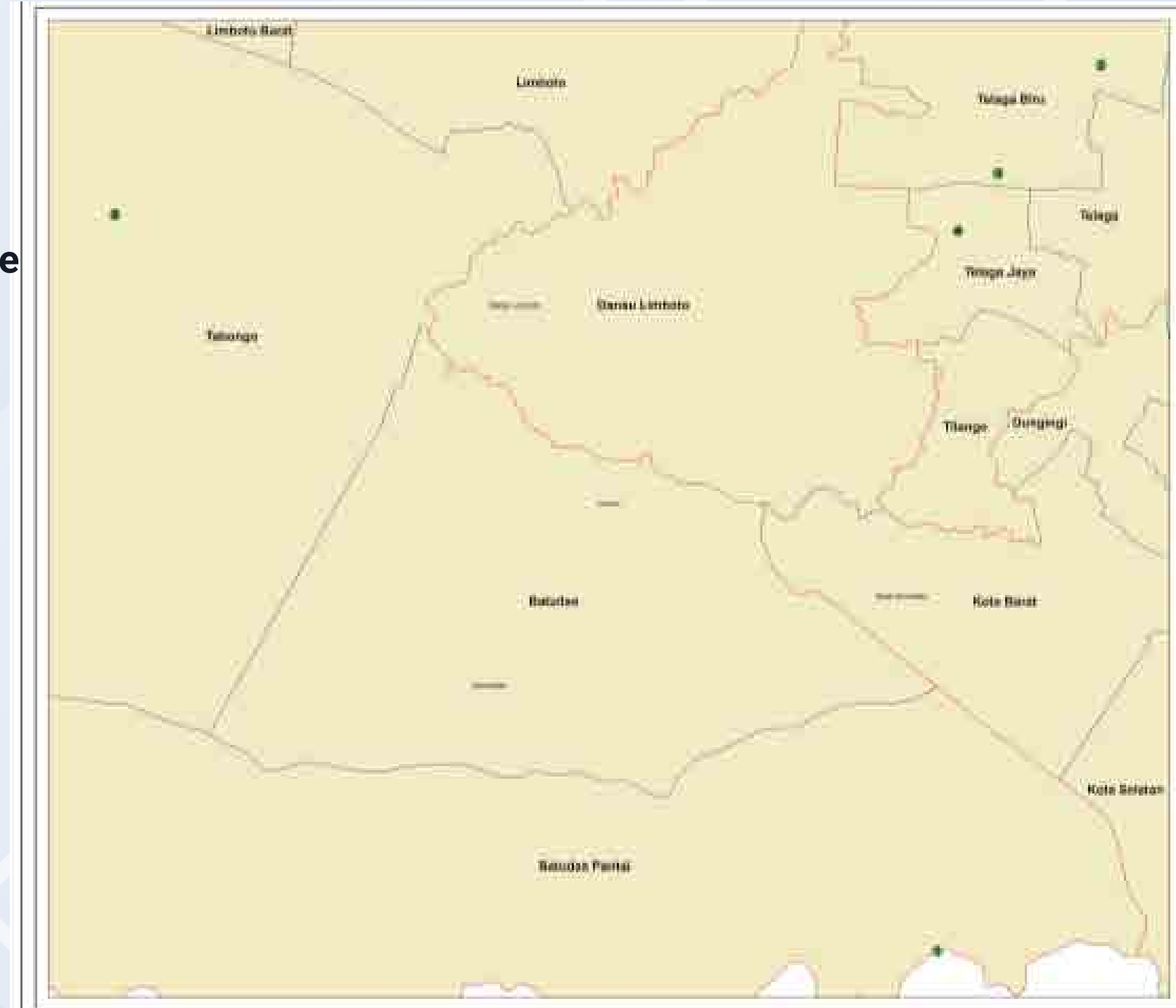
Distribution of Settlement Domestic Wastewater Treatment Plants (IPAL) in Bone Bolango District

- There are 6 SANIMAS in Gorontalo District

Types of Toilets Used

Types	Household s	Prosentase
Permanent Healthy Latrine (JSP)	32,534	45,48
Semi-Permanent Healthy Latrine (JSSP)	14,065	19,66
Jamban Sharing	11,984	16,75
Total	71,537	81,89

Sumber : BPS Prov Gorontalo 2023



BOALEMO DISTRICT

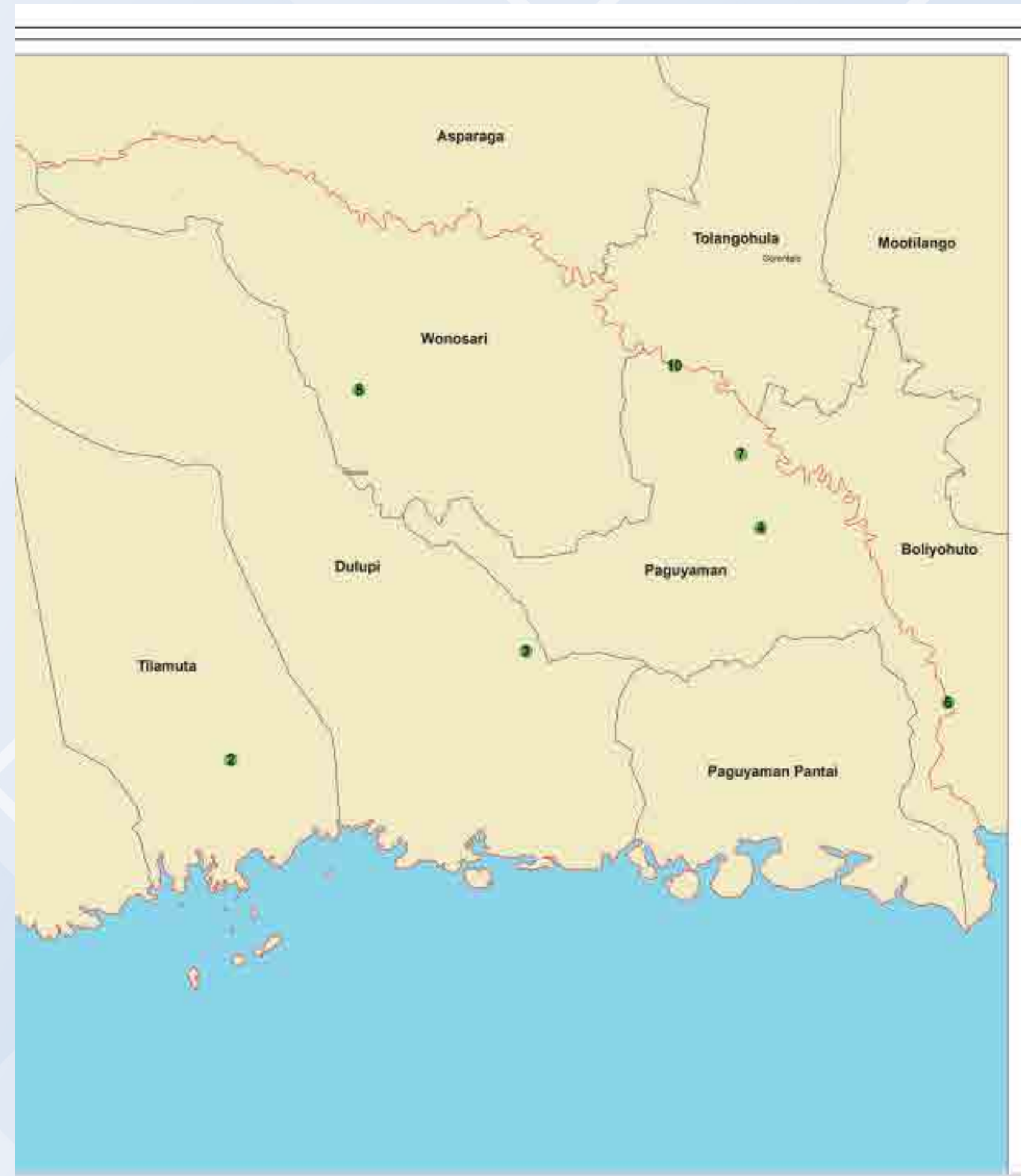
Distribution of Settlement Domestic Wastewater Treatment Plants (IPAL) in Boalemo District

- There are 10 SANIMAS di Kab Boalemo

Types of Toilet Used

Types	Household	Prosentase
Permanent Healthy Latrine (JSP)	17,744	45,77
Semi-Permanent Healthy Latrine (JSSP)	3,473	8,96
Shared	10,386	26,79
Total	38,768	81,52

Sumber : BPS Prov Gorontalo 2023



DEVELOPMENT PLAN FOR HAZARDOUS WASTE PROCESSING UNITS

Potential Generation Rate of Hazardous Waste (B3) from Health Facilities in Gorontalo Province

NO	SUMBER LIMBAH B3	JUMLAH	PERKIRAAN POTENSI TIMBULAN (kg/hari)	TOTAL TIMBULAN (kg/hari)	TOTAL TIMBULAN (kg/tahun)
1	Rumah Sakit	17	40	680	244.800
2	Puskesmas	93	20	1.860	669.600
3	Klinik	4	15	60	21.600
JUMLAH		114	75	2.600	936.000

Sumber: DLHK Provinsi Gorontalo, 2021

Problems

- The rate of hazardous waste generation from health facilities is estimated to be around 2,600 kg/day or 936,000 kg/year, with approximately 65% not properly managed.
- The absence of hazardous waste processing units in Gorontalo Province results in a significant amount of hazardous waste not being properly managed. There are no health facilities in Gorontalo Province with licensed hazardous waste processing units, leading to constant public complaints due to environmental pollution.
- The fees paid by health facilities to third-party hazardous waste management services are very high, ranging from Rp. 45,000 to Rp. 51,000/kg, causing some health facilities to refrain from handing over their waste due to limited budget availability. The handling of hazardous waste by third parties from health facilities is not timely, leading to occasional accumulation exceeding the storage time limits according to regulations.
- Insufficient knowledge and understanding among personnel in dealing with hazardous waste in health facilities result in suboptimal waste sorting activities at the source. The lack of supporting facilities for hazardous waste management in health facilities, such as transport trolleys, Personal Protective Equipment, and storage containers (Cool storage

OBJECTIVES

01

To enhance the quality of hazardous waste (B3) management services for Health Facilities in Gorontalo Province:

02

To improve the quality of hazardous waste (B3) management services for healthcare facilities in Gorontalo Province.

03

To provide cost-effective, fast, timely, and regulation-compliant hazardous waste (B3) management services to healthcare facilities.

04

- Improved speed and efficiency in providing environmental quality testing services to the government, the public, and the business sector.

OUTPUT

01

Availability of hazardous waste (B3) facilities in Gorontalo Province

02

Improved quality of hazardous waste (B3) management services and environmental quality testing in Gorontalo Province

03

Increasing Local Revenue (PAD).

04

Environmental impact risks due to hazardous waste (B3) management by Healthcare Facilities can be controlled.

CHALLENGES

Several challenges exist in wastewater management, as follow:

01

The limitation of public access to the availability of proper water and sanitation services

02

Limited community involvement and awareness of the importance of managing residential wastewater, and the potential within communities has not been fully empowered by the government

03

Inadequate regulatory frameworks needed for the residential wastewater management system, coupled with weak law enforcement against violations related to wastewater pollution

04

Insufficient capacity of human resources engaged in residential wastewater management

05

Limited government funding for both investment and development, coupled with low wastewater service tariffs leading to inadequate operational and maintenance costs, as well as the development of wastewater management systems.



CHALLENGE



**THANK
YOU**