



**Ministry of Environment and Forestry**

# MoEF's Support for Solid Waste Management Implementation in Citarum Watershed, West Java



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Waste and Hazardous Substance Management  
Jakarta, 15<sup>th</sup> January 2021



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Upstream of Citarum River

# PRESENTATION OUTLINE

01



CITARUM RIVER  
PROFILE

02



REGULATION  
BASIS

03



ACHIEVEMENTS IN  
2018 – 2020

04



PLAN IN 2021

05



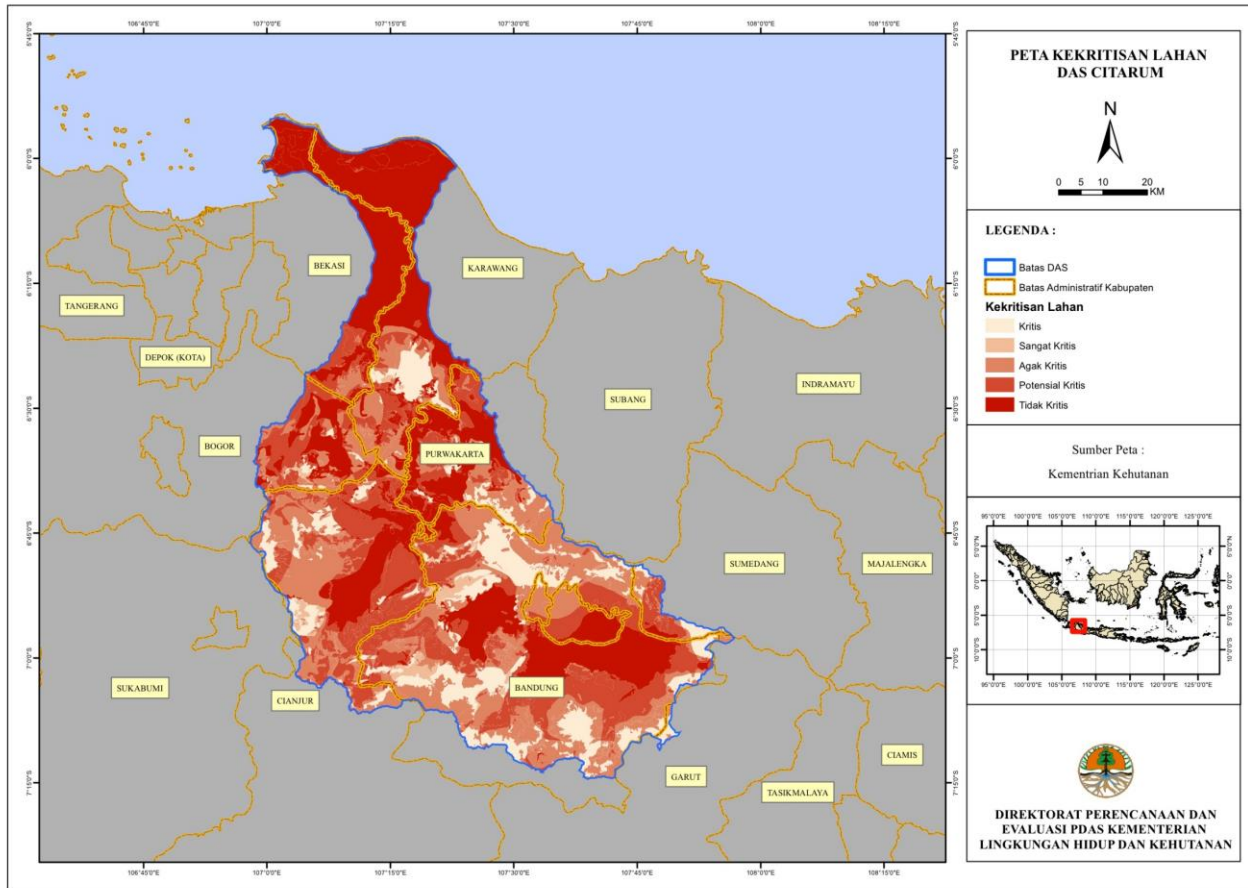
FUTURE COOPERATION  
OFFERED

# 01



## CITARUM RIVER PROFILE





- Geographically, Citarum River lies on 106° 51'36" - 107° 51' Long and 7° 19' - 6° 24' Lat, with area of ±11.323 Km<sup>2</sup>.

- Kabupaten Bandung
- Kabupaten Bandung Barat
- Kota Bandung
- Kota Cimahi
- Kabupaten Cianjur
- Kabupaten Sumedang
- Kabupaten Subang
- Kabupaten Purwakarta
- Kabupaten Bogor
- Kabupaten Bekasi
- Kota Bekasi
- Kabupaten Karawang
- Kabupaten Indramayu

Citarum River is the biggest and longest river in West Java Province. With the upstream in Wayang Mountain (Kabupaten Bandung), Citarum flows across 297 kilometers up to the downstream in Tanjung Area (Kabupaten Karawang).

# 02



## REGULATION BASIS



# President Regulation Number 15 Year 2018 about Acceleration of Pollution and Damage Control of Citarum Watershed

Article 12, Letter i, Number 4:

In order to control pollution and damage of Citarum Watershed, the Task Force shall:

i. Ministry of Environment and Forestry

## 4. Support the Provision of Solid Waste Management Facilities



Aligning with:

National Medium Term Development Plan (RPJMN) 2020 – 2024:

National Policy on Solid Waste Management:  
Implementation of Circular Economy to improve People Wealth



To Support the achievement of:



**NATIONAL  
POLICY AND  
STRATEGY  
(JAKSTRANAS)**

Projection of SW  
Generation

SW Reduction Target

SW Handling Target

2020  
TARGET

67,8 Mio Ton

14 Mio ton (22%)

50,8 Mio ton (75%)

2025  
TARGET

70,8 Mio Ton

20.9 Mio ton (30%)

49,9 Mio ton (70%)

Provide **Solid Waste Treatment Facilities** that support the implementation of 3Rs and Circular Economy



# 03



ACHIEVEMENT IN 2018

– 2020





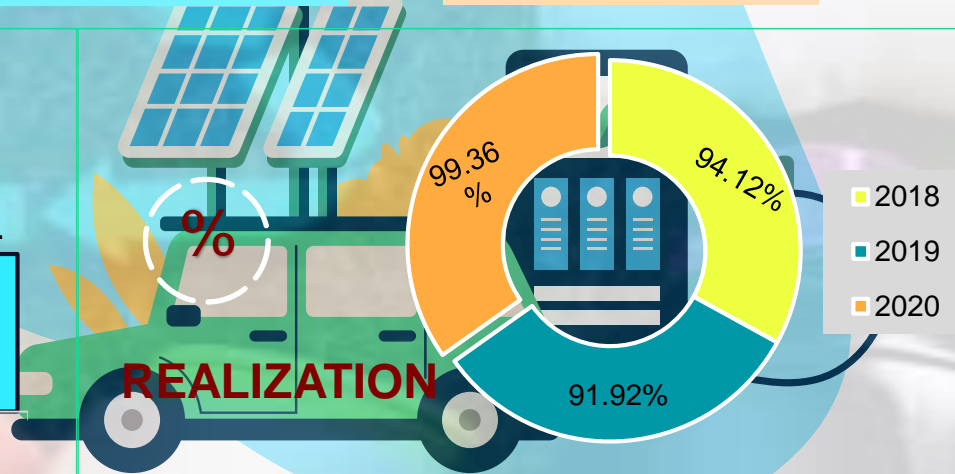
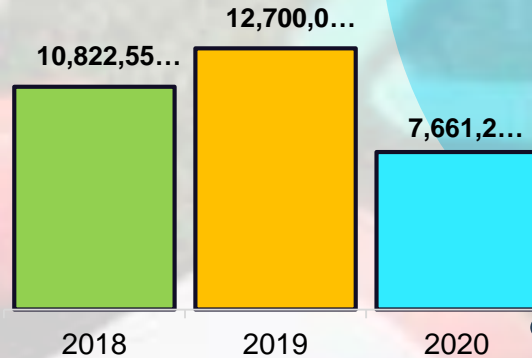
# Budget and Realization

## Year 2018–2020

YEAR	BUDGET (Rp.)	REALIZATION (Rp.)	(%)
2018	10.822.555.000	10.186.004.070	94,12%
2019	12.700.000.000	11.674.405.972	91,92%
2020	7.661.221.000	7.612.211.200	99,36%



**BUDGET**



**REALIZATION**

# SOLID WASTE TREATMENT FACILITIES CITARUM WATERSHED **2018**



## **BANK SAMPAH INDUK (BSI) SW BANK CENTER**

*Capacity: 1 Ton/day*

1. **Kab. Subang**
2. **Kota Bandung**
3. **Kab. Bandung**
4. **Kota Cimahi**
5. **Kab. Bekasi**
6. **Kab. Karawang**



## **PUSAT DAUR ULANG (PDU) RECYCLING CENTER**

*Capacity: 10 Ton/day*

1. **Kota Bandung**
2. **Kota Cimahi**
3. **Kab. Bandung**

# SOLID WASTE TREATMENT FACILITIES CITARUM WATERSHED

YEAR

2019



## **PUSAT DAUR ULANG (PDU 4 Unit)**

Kab. Bogor, Kab. Bekasi,  
Kab. Indramayu, Kab. Subang



## **BIODIGESTER (1 Unit)**

Kab. Bekasi



## **BANK SAMPAH INDUK (BSI 1 Unit)**

Kab. Indramayu, Kab.  
Purwakarta, Kab. Sumedang

# SOLID WASTE TREATMENT FACILITIES CITARUM WATERSHED



2020

## COMPOSTING HOUSE

Capacity: 2 Ton/day

- 1. Kab. Cianjur
- 2. Kab. Purwakarta

## BIODIGESTER

Capacity: 1 Ton/day

- 1. Kab. Cianjur
- 2. Kab. Sumedang

# POTENTIAL OUTCOMES FROM THE ACTIVITIES



Potencies of SW  
Reduction



Number of  
Households Served



Potencies of People  
Employed

**2018**

**2019**

**2020**



12.960 ton/year



15.840 ton/year



2.160 ton/year



3.702.857 HH/year



4.525.714 HH/year



617.143 HH/year



78 people



72 people



26 people

04



PLAN IN 2021





2021

# ACTIVITIES PLAN

Solid Waste Treatment Facilities Provision in Citarum Watershed

Budget Allocation: **Rp. 5.100.000.000,-** (five billion and one hundred million rupiah).

Facilities Planned:



**Biodigester**

Capacity: 1 Ton/hari  
Unit Number : 2 Unit  
Location : Kab. Indramayu, Kab. Subang



**Rumah Kompos**

Capacity : 2 Ton/hari  
Unit Number : 2 Unit  
Location : Kab. Sumedang, Kab. Karawang

# 05



FUTURE  
COOPERATION  
OFFERED





# The New Generation of Recycling Center (PDU): A New Perspective



Value  
Added



SOLID WASTE TREATMENT

SOLID WASTE TREATMENT

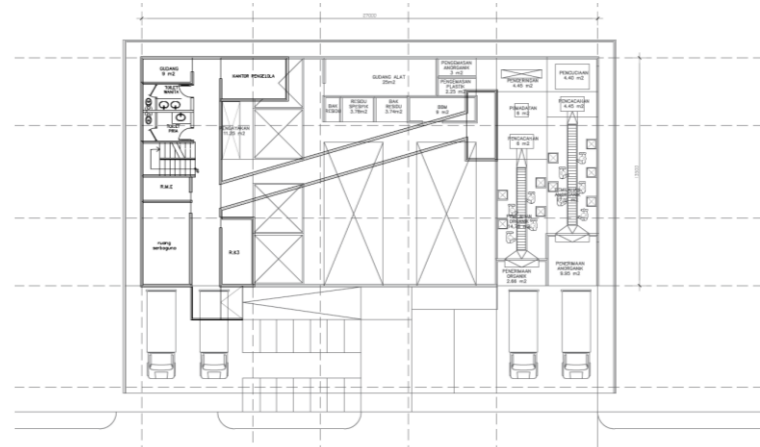
+

EDUCATION & CAMPAIGN

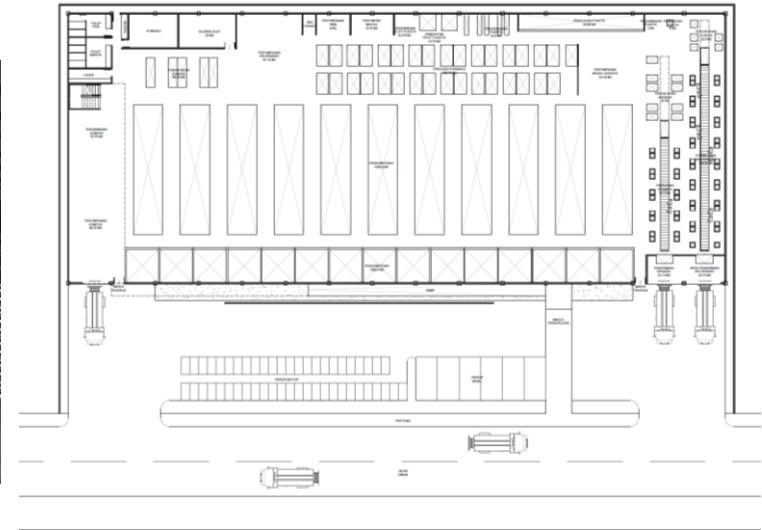
**Awareness**

*Note: Beside addition of education function, the DED has basically changed with incorporating diapers treatment technology*

# The New Generation of PDU - 5,10, 20 TON

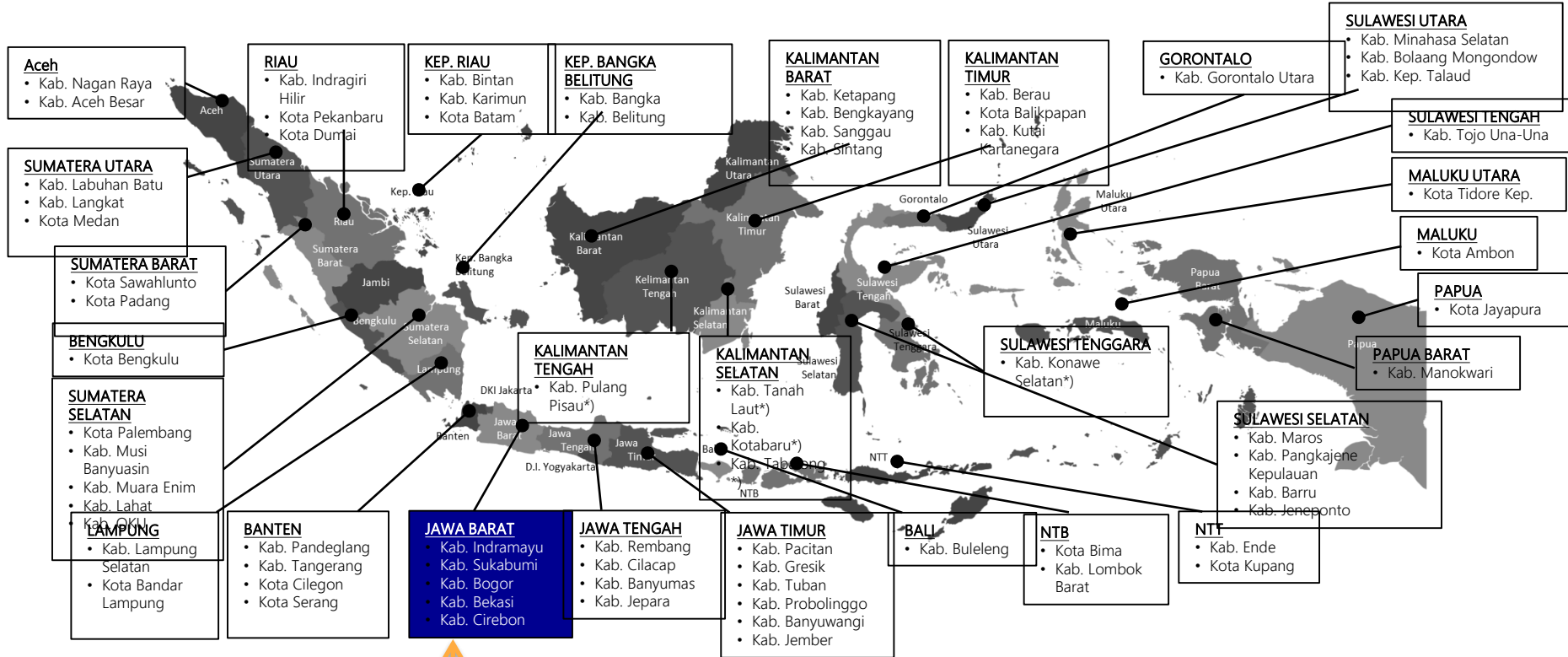


# The New Generation of PDU – 50 TON



# RDF POTENCIES IN INDONESIA

(based on Coal Power Plants and Cement Factories Distribution)



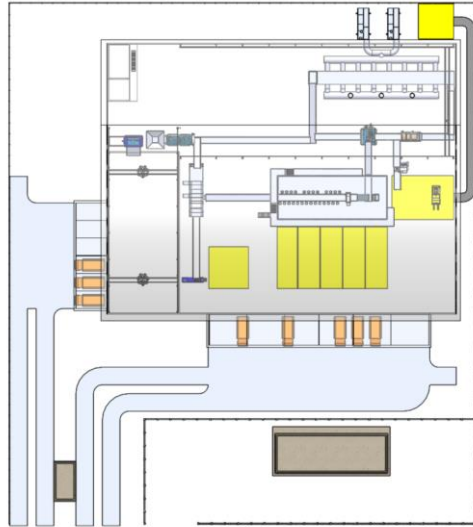
Majority in Citarum Watershed Area

# RDF Development Plan with Capacity of 300 ton/day

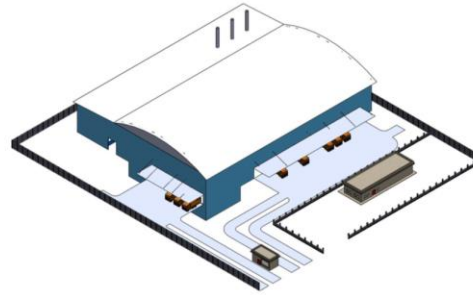
Tabel 8-6 Perhitungan total biaya RDF Plant

Biaya Investasi	Rp204.312.775.400	Rp
Total Biaya Investasi	Rp11.134.523.321	Rp/tahun
	Rp109.162	Rp/ton
Biaya Investasi per KK	Rp12.608	Rp/KK/bulan
Total Biaya Operasional	Rp15.873.504.452	Rp/tahun
	Rp155.623	Rp/ton
Biaya Operasional - Pemeliharaan per KK	Rp17.974	Rp/KK/bulan
Total Biaya Investasi + Operasional	Rp27.008.027.772	Rp/tahun
	Rp264.785	Rp/ton
Biaya Investasi + Operasional per KK	Rp30.583	Rp/KK/bulan

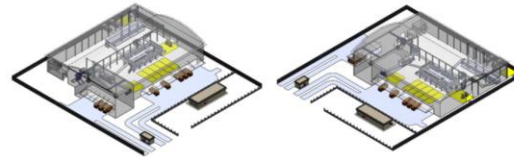
Challenges: Budget sources.  
Alternatif: KPBU (PPP), Grant, APBN (?)



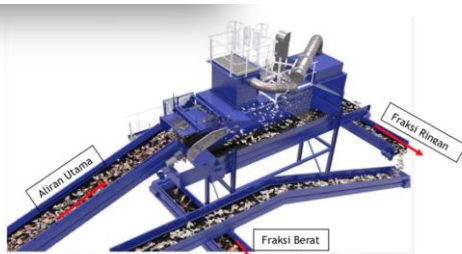
Gambar 7-1 Rancangan Fasilitas RDF kapasitas 300 ton/hari



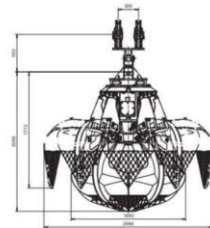
Gambar 7-2 Rancang Bangun Fasilitas RDF 3D



Gambar 7-3 Rancangan Fasilitas RDF tampak atas



Gambar 6-3 Air Classifier



Gambar 6-10 Overhead Crane Grabber



Gambar 6-12 Trommel screen



Gambar 3-28 Contoh Pelletizer  
(Sumber: <https://www.simec-pellet.com/>)



# Thank You

Direktorat Jenderal Pengelolaan Sampah, Limbah  
dan B3

Kementerian Lingkungan Hidup dan Kehutanan

Gedung Manggala Wanabakti Blok IV Lantai 5  
Jl. Gatot Subroto – Jakarta Pusat