

2022

# ENVIRONMENTAL SITE REPORT



## SHARP SEMICONDUCTOR INDONESIA

Periode: April 2021 – March 2022



# Environmental Site Report 2022

## PD's Statement

President Director  
of Sharp Semiconductor Indonesia

**Ridwan Walangadi**



PT Sharp Semiconductor Indonesia (SSI) is located in Karawang Region West Java Indonesia.

SSI was founded on August 1995 by Sharp Corporation as production base of Electronic Component.

The current main product are Semiconductor Lasers. Sharp Laser Diode is the only manufacturer that can provide laser devices in the three primary light colors of RGB (Red, Green, and Blue).

It contributes to the creation of new lifestyles by developing and manufacturing laser modules that make possible colorful, realistic images to use in next-generation displays and High-powered lasers used for lighting and material processing.

We exported our Semiconductor Laser Devices to many countries throughout the world, In carrying out business activities at the PT Sharp Semiconductor Indonesia refer to Sharp Group's long-term environmental vision "SHARP Eco Vision 2050"

Create more clean energy than all the energy consumed in our supply chain.

Minimize the environment impact to our business activities.

Based on this, we set our Environmental policy as follow

- Strongly comply with the regulation and others established requirement.
- Have a priority for customer interest, worker's safety and health, and environmental sustainability.
- Address the problems appropriately and effectively, and carry out continuous improvement.
- Risk impact lowering and optimize us using the resources.
- Participation for worker's enhancement through the provision of competent human resources.

This report highlight the main environmental activities carried out by SSI from of April 2021 to March 2022.

We are committed to environmental friendliness in all activities of our manufacturing process, and contribute to preserve the environment for future generation.

## CONTENTS

- 2.** PD's statement
- 3.** Contents
- 4.** Company Profile
- 5.** Environmental Policy
- 6.** Status of Environmental Management System
- 7.** Environmental Organization Structure
- 8.** Environmental Education and Awareness
- 9.** Environmental Objectives and Achievements
- 11.** Environmental Impacts and Reduction Measures
- 13.** Reduction of CO2 Emission
- 15.** Green Logistic
- 17.** Minimization and Recycle of Waste
- 20.** Green Campaign
- 22.** Contact Information



## Company profile

### PT. SHARP SEMICONDUCTOR INDONESIA (SSI)



#### Company Profile

- Address : KIIC Lot F-3, Karawang, West Java - Indonesia
- Establish : August 1995
- President Director : Ridwan Walangadi
- Capitalization : US\$ 26.329 million
- Grand Area : 50,000 m2
- Structure Area : - 12,000 m2 (1<sup>st</sup> building)  
- 8,924 m2 (2<sup>nd</sup> building)
- Man Power : 274 employees (As of April 2022)
- Sales Activity :
  - **Domestic Sales :** Sharp Electronic Indonesia (SEID)
  - **Sales Destination :** All over the world (Japan, Asia, America, and Europe)



Integrated 3 Management Systems of ISO 9001, ISO 14001, ISO 45001 certified by URS as certification bodies in January 2021

#### Main Products



#### FACE MASK

Medical device that we must wear when we are outside activity during the Covid-19 pandemic.



#### LASER

Laser diodes are used for optical disk used and other used application (Printer, Barcode Reader etc).



#### OPTO

Opto devices are used for detect object, signal transformer, detect infra red, turn-on an output triac and other used application (Printer, TV, Facsimile, Power Supply for motor drive, etc)

## Environmental Policy



### PT. SHARP SEMICONDUCTOR INDONESIA,

a manufacturer of wide variety of electronic components is committed to promote our business for :

- Development of society
- Environmental protection
- Happiness of all concern to SSI

Through an integrated QSHE Management System, , we are committed to:

**S**trongly comply with the regulation and others established requirement

**H**ave a priority for customers interest, worker's safety and health, and environmental sustainability

**A**ddress the problems appropriately and effectively, and carry out continuous improvements

**R**isk impact lowering and optimize in using the resources

**P**articipation for worker's enhancement through the provision of competent human resources

# Environmental Site Report 2022

## Status of Environmental Management System



2020/33811/RC1  
ISO 14001:2015



### Audit Report

PT SHARP SEMICONDUCTOR INDONESIA

On 27 – 29 January 2021, Sharp Semiconductor Indonesia (SSI) had renewal audit from URS (United Registrar of Systems) certification body. This renewal audit covered the area Management, HSE Team, Management Representative and other related function within this organization. This audit performed by online method since Covid-19 pandemic still exist.

There was only one (1) concern found that requiring corrections and investigation of root causes and appropriate corrective actions. Comments in form of Potential Non-conformities (PNC) and Opportunity for Improvement (OFI) were raised during the audit for SSI to continually improve the established system.

As audit result, URS recommended for continued registration status to ISO 14001:2015 and ISO 45001:2018 certification.

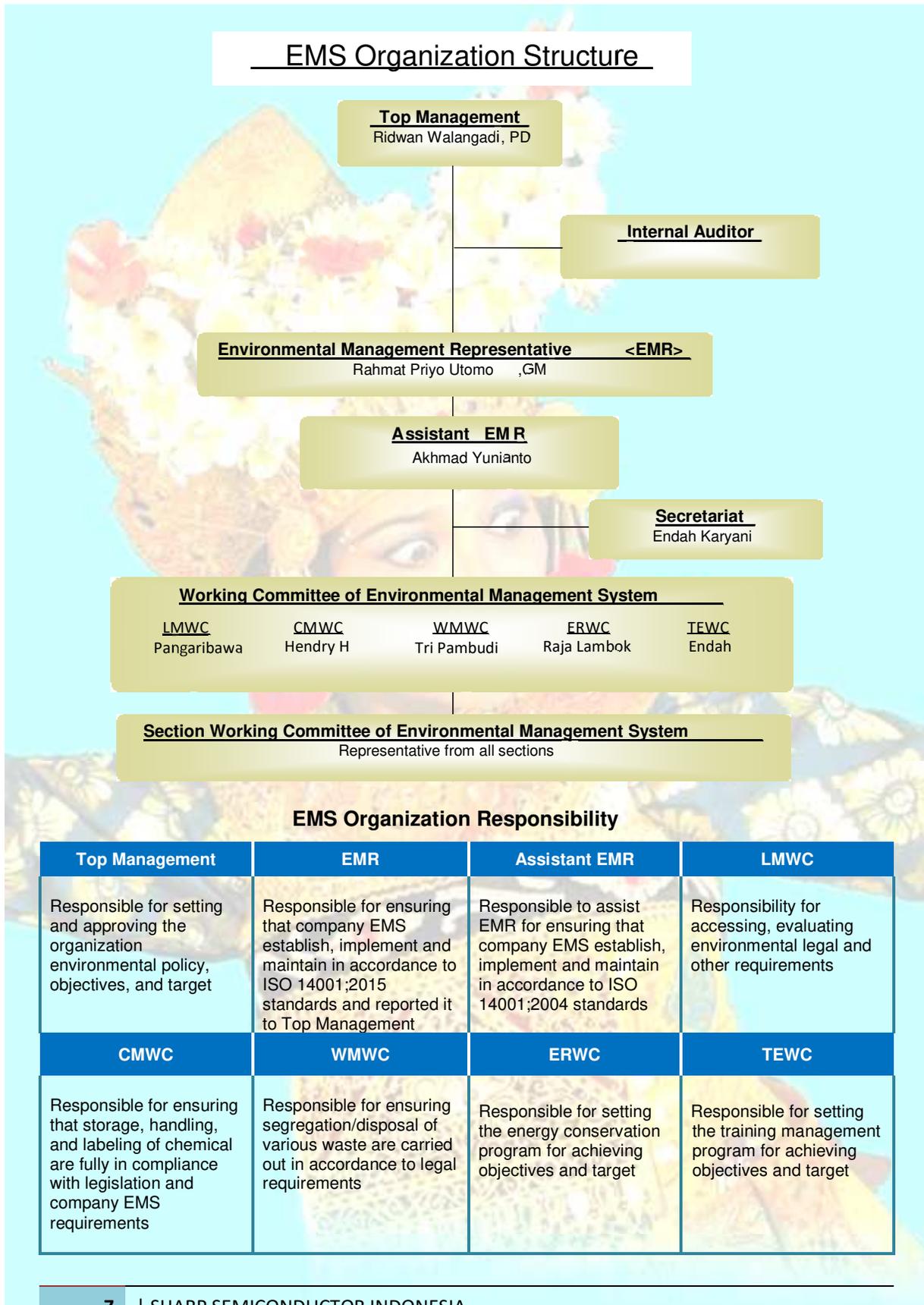
With the spirit of continual improvement, all of comments which are recorded from URS auditor during audit will always be followed up by the secretariat and all related section in SSI.

We hope to ourselves that we will always be able to improve themselves and the organization SSI is from day to day towards better conditions



# Environmental Site Report 2022

## Environmental Organization Structure



# Environmental Site Report 2022

## Environmental Education and Awareness

Based on quality, safety, healthy, and environment policy applied, SSI strongly committed to improve employees competency trough training, and related program. Employee competency involving quality, safety, health, and environmental matter is one unity linked each other. We develop training and workshop program to attain appropriate and sufficient competency for supporting safety, healthy, and environment program.



Materi training Waste Management



Materi training Chemical Management

Training Item	Trainee
Chemical Management	29
Waste Management	24
RoHS 2	42
External training	2
<b>Total FY2021</b>	<b>97</b>



Materi training RoHS2

Year 2021 we live in a situation Covid-19 pandemic. This condition forces us to improve from the previous routine activity in order to survive.

Training activities must to be improved, because previously it was always done offline, meeting directly between trainees and trainers in one room.

E learning is a perfect solution. Employee's competencies related to their work functions were maintained, as well as being aware of COVID-19 can still be applied.

# Environmental Site Report 2022

## Environmental Objectives and Achievements

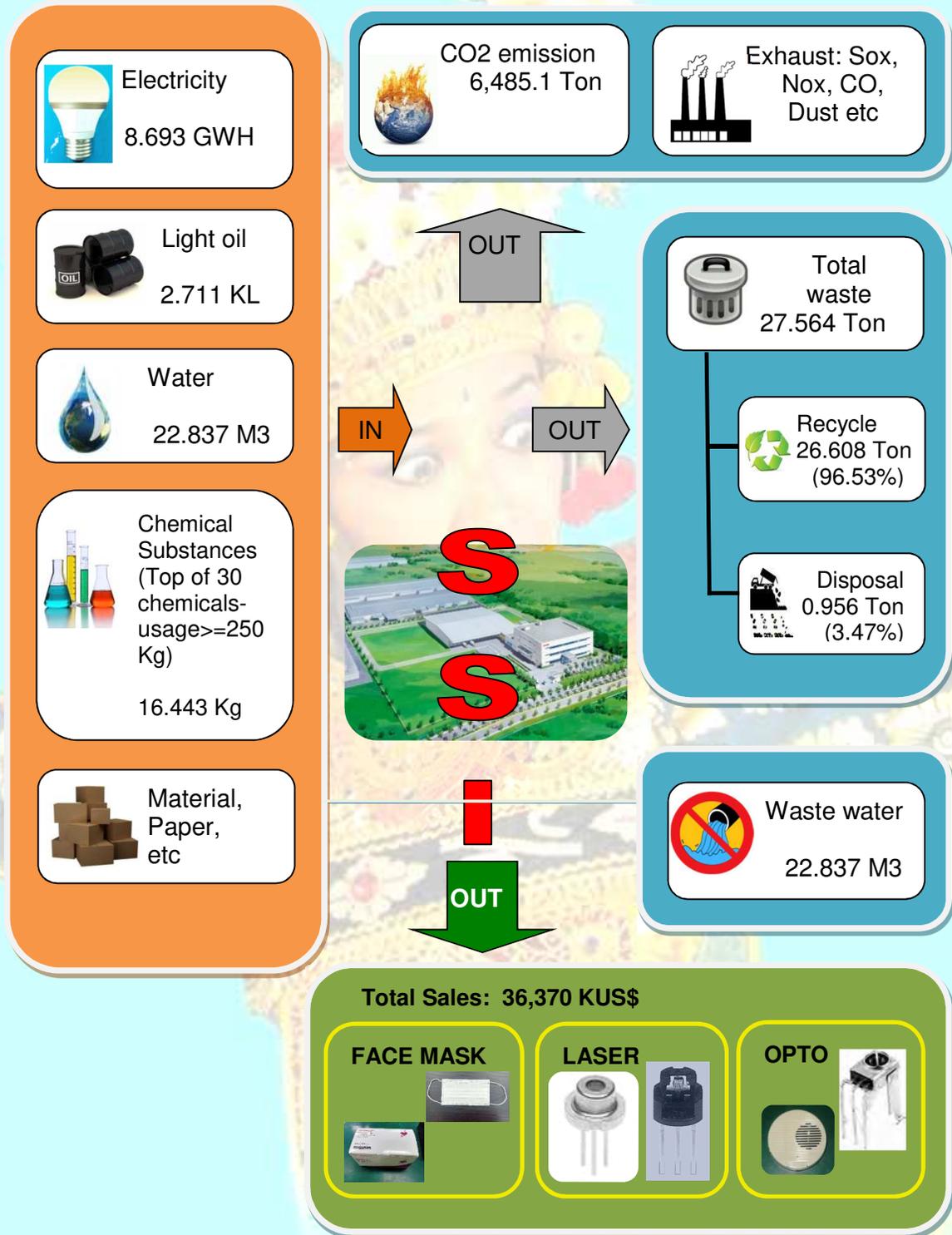
The following is target and result of Environmental target on 2021F and 2021L:

Objectives	Targets	Result Evaluation		Remark
		2021F	2021L	
Reduce CO2 emissions per sales amount	<b>2%</b> Reduction compared to FY2020 result (similar term)	<b>12.14%</b> decrease	<b>4.72%</b> decrease	Achieved target 
Reduce disposal per total waste generated	<b>3%</b> Disposal waste compare to waste generated	<b>2.95%</b>	<b>2.92%</b>	Achieved target 
Loading ratio in transportation of waste (non hazardous waste)	<b>13</b> Deliveries/month	<b>11.67 times</b> Deliveries/month	<b>10.00 times</b> Deliveries/month	Achieved target 
Reduce export trucking usage	<b>2%</b> Reduction compared to FY2020 result (similar term)	<b>18.18%</b> decrease	<b>35.19%</b> decrease	Achieved target 

# Environmental Site Report 2022

## Environmental Impacts and Reduction Measures

### Mass Balance



# Environmental Site Report 2022

## Environmental Impacts and Reduction Measures

### INPUT

#### Electricity

Electric power purchased from state power company, for use at manufacturing sites and offices

#### Light oil

Light oil used for test running generator set (15 minutes every week) and running genset if black out was occurred

#### Water

Water purchased from estate (KIIC ~ Karawang International Industrial City) for supply water needed in utility, production line and domestic

#### Chemical substance

Chemical substances used for production line. It's was reported to government regularly and reported to Sharp Corporation in PRTR data (from chemical usage  $\geq$  250 Kg)

#### Material, Paper, etc

Material comply to RoHS and we control it on earlier process (Procurement process by Green Procurement Agreement). Paper used at factories and offices. We make sure that we use FSC certified paper



### OUTPUT

#### CO2 emission

CO2 emission generated as a result of using electricity (CO2 emission volume was calculated using the conversion factor defined by Sharp Corporation)

#### SOx, NOx, CO, Dust etc

Sulfuric oxide, Nitrogen Oxide etc were generated as result of using gas and fuel. These gases as indicator of air pollution were measured by independence laboratory and monitored regularly. Corrective action will be taken if the results exceed the maximum limit.

## Environmental Impacts and Reduction Measures

### Recycle waste

Recycle waste means: converting waste materials into new materials and objects. The recovery of energy from waste materials is often included in this concept. Often recycle waste is valuable waste

### Disposal waste

Disposal waste is the last option if the waste really do not have value for recycling or others. The price of this category is very expensive too compared to other method of waste management, especially for hazardous waste

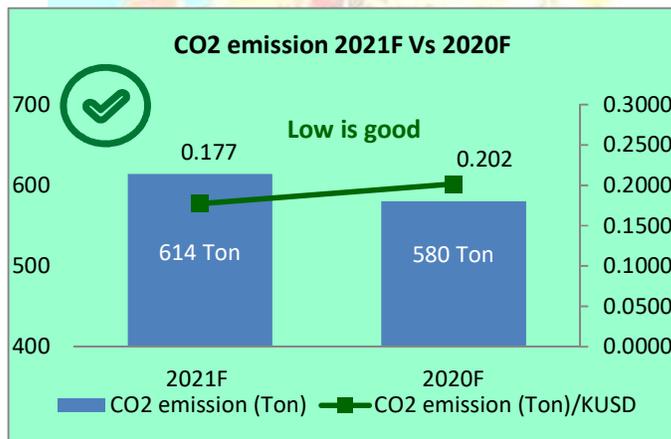
### Wastewater

Wastewater discharged from manufacturing sites and offices activity into estate facility for treatment before released to river. The quality of wastewater was measured by independence laboratory monthly and monitored.

# Environmental Site Report 2022

## Reduction of CO2 Emission

Carbon dioxide (CO<sub>2</sub>) is the primary greenhouse gas emitted through human activities. Carbon dioxide is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals). Human activities are altering the carbon cycle—both by adding more CO<sub>2</sub> to the atmosphere and by influencing the ability of natural sinks, like forests, to remove CO<sub>2</sub> from the atmosphere.

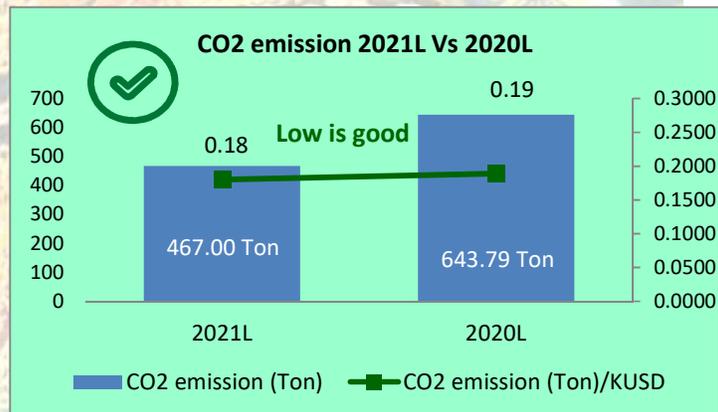


In SSI, we count CO<sub>2</sub> emission from electricity consumption only. Gasoline and light oil we exclude from this calculation since electricity is mainly (99%). Electricity is used for running the utility machines (compressor, chiller, cooling tower, etc.), production machine and also lighting and office needed.

Honestly it's very hard for us to reduce electricity consumption, remembering that SSI is electronic semiconductor company where every production room should be required to use Air Conditioner to reach the appropriate temperature and humidity requirements of the product. And for non-production room, Air Conditioner are also needed for worker comfort in order to work optimally.

Difficult in reducing electricity consumption target is a challenge for us which force us to look for new ways to achieve the target reduction in CO<sub>2</sub> emissions has been set.

And the result are :



# Environmental Site Report 2022

## Reduction of CO2 Emission

In 2021F we could achieved target, the target was reducing 2% (0.198 Ton CO2/K.USD) and the result was reducing 12.14% (0.177 Ton CO2/K.USD). This means achievement: 607%) far exceeded the target set.

We could achieve target too in 2021L, the target was reducing 2% (0.185Ton CO2/K.USD) and result was reducing 4.72% (0.180 Ton CO2/K.USD) achievement: 236%)

What have we do until we could achieve the target on both semester?

Our effort were:

1. Periodical maintenance for all utility and production machines
2. Off chiller on Saturday-Sunday if no production activity.
3. Find out the product with high price, since the performance of this target compared to sales amount.



Vacuum pump machine

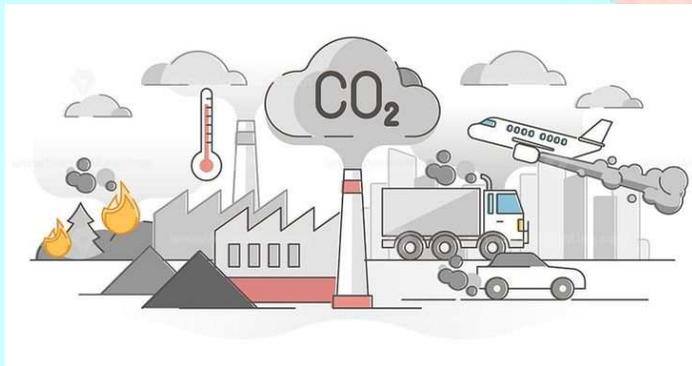


Chiller machine



Compressor machine

## Green Logistic



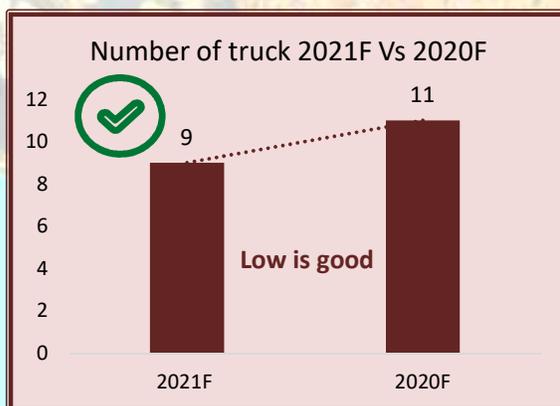
Our commitment is always try to control the negative impacts of corporate activity, we implemented several programs related to reduction of CO2 emissions in the transport of materials (logistics).

### 1. Reducing vehicle emission from Export-Import activity

We are reducing vehicle emission from export import activity by strengthening control of shipment and decreasing usage of in-land trucking.



Trucking usage data for period 2021F - 2021L is shown in the following chart (unit truck)



Trend on in-land trucking usage (average unit per month) compare to previous year (same semester)

## Green Logistic

### Promote improvement of loading ratio

The other program to reduce CO2 emission from transportation activity is promote improvement of loading ratio in transportation of waste with target number of transportation of waste is 13 times per month. This target especially for transportation of non hazardous waste (carton and plastic category)



UMK



SSI



# Environmental Site Report 2022

## Minimization and Recycle of Waste

### Minimization of Waste Quantity

In order to minimize environmental impact of SSI's business activities on waste discharge, in FY 2021 we establish programs to achieved 3% disposal waste of total waste generated.



In 2021F we could achieved the target. Disposal waste per total waste generated was 2.95% from target 3%. Low is good



Waste item in SSI



Waste classification in SSI



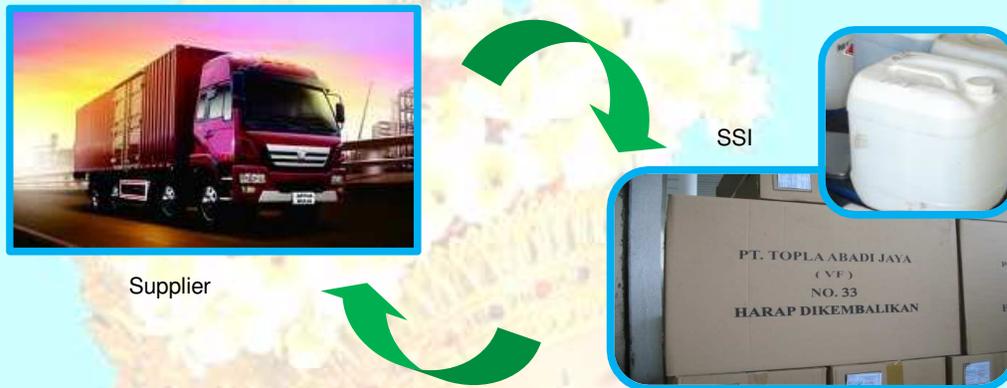
In 2021L we could achieve target too. Disposal waste per total waste generated was 2.92% from target 3%. Exclude Oct 2021 performance: OPTO EOL

# Environmental Site Report 2022

## Minimization and Recycle of Waste

Our effort to fight to increase reuse waste :

- 1.To return carton box and jerry can to suppliers (continue program)
- 2.Re-export ex-packaging material: stem, cap, wire spool, Ag paste syringe and empty box
3. Paperless program for some activity by creating IT program



Re-export of ex-packaging material, programmed as re-use the material at SSI supplier. So, this packaging used for many times shipping material to SSI.

Re-use is the 2nd best waste management hierarchy after reduce. In the future this program will be continue.

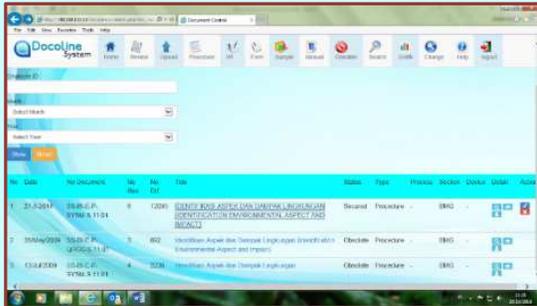
We also improvement in the IT (Information Technology). Some documents only must be print. Not all requests for leave / permission / payment request and others must use the print out form. IT section members create some programs to minimize paper consumption.

The program are:

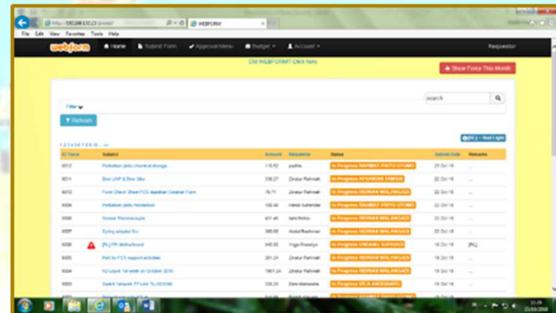
1. Document online
2. Payment Request online (PR online)
3. Working Capital System (Order Material)
4. Voucher System (Voucher production result)
5. Utility Monitoring System
6. EMS (Equipment Management System)
7. MIS helpdesk
8. Attendance Web form

# Environmental Site Report 2022

## Minimization and Recycle of Waste



Document online, created by MIS member



PR online, created by MIS member

Our effort to fight increase recycling waste :

Separate the canteen waste into plastic and paper. Plastic waste example: drink bottle can categorized as recycling waste

With this action, we got 2.95% in 2021F and 2.92% in 2021L from target 3%. Low is good.

Our actions today to reduce, reuse, recycle waste in our working and daily activity, hope it can save the lives of our next generation in the future.

We take care nature....nature will take care us...

# Environmental Site Report 2022

## Green Campaign...together we save our environment

Industrial estate KIIC, SSI and other tenants, also Telaga Desa agro-enviro Education Park conduct CSR Green Campaign year 2021 at Sukasari village, Karawang, Jawa Barat, on Thursday, December 16th, 2021.



Take a picture with all participants' representatives after the Green Campaign and planting tree

Purwasari village was chosen as CSR Green Campaign location since the village area is an agrarian village where most of the residents' livelihoods are farmers and industrial workers.



Official Green Campaign event attended by representatives of KIIC tenants, village staff and environmental communities



Symbolic assigning of fruit trees from KIIC to Sukasari village staff

Bambang Sugeng, Head of External Relation Division KIIC in his speech said, planting trees to maintain productivity, prevent air pollution, prevent and reduce the effects of global warming, prevent land degradation and deforestation.

# Environmental Site Report 2022

## Green Campaign...together we save our environment



KIIC with the village head Sukasari planted a mango tree...coordination and cooperation in 1 tree hole

Through this Green Campaign year 2021, we fight to realize the concept of Eco Development and as a concern for environmental conservation, especially in the Karawang Regency area.

On this activity, KIIC, tenants and Telaga Desa donated 850 trees consisted of 100 guava trees, 100 mango trees, 300 salam trees and 350 merbau trees



Sharp Semiconductor Indonesia (SSI) staff who joint in Green Campaign event

We hope with the Green Campaign program, it is expected to be able to increase the productivity of the surrounding community, which is very dependent on the results of the agricultural, industrial and service sectors.

## Contact Information

### Contact Information

ENDAH KARYANI  
SUPERVISOR



**Tel** (62-21) 8901512 ext. 325  
**Fax** (62-21) 8901513  
endah@ssi.sharp-world.com

### Company Information

PT. Sharp Semiconductor Indonesia  
Karawang International Industrial City (KIIC) Lot F-3 Jl. Tol Jakarta-Cikampek Km 47, Karawang  
41361  
**Tel** (62-21) 8901512 (hunting), (62-267) 644675-76  
**Fax** (62-21) 8901513

