

MANAGING ENVIRONMENTAL IMPACT

We are determined to operate responsibly to safeguard the environment. In consideration of the impact of our activities on both the environment and surrounding communities, we set ourselves stringent environmental standards and strive to exceed regulatory requirements. We manage our emissions, optimise energy and water use, respect biodiversity and ecosystems, as well as reduce the generation of pollution and waste in our operations.

IJM's commitment to protect the environment is an intended outcome of our Environmental Management System ("EMS"). Our Environment Policy makes this everybody's responsibility, including those in our supply chain. The Construction and Industry Divisions continue to be certified with the ISO 14001:2015 while the Property Division was successfully certified with the ISO 14001: 2015 on 25 October 2019.

RESPONDING TO CLIMATE CHANGE

Environmental concerns were prominently featured in the World Economic Forum's annual Global Risk Report 2020. The top five global risks in terms of likelihood and severity were climate-related such as extreme weather events, failure of climate-change mitigation and adaptation, biodiversity loss and ecosystem collapse, natural disasters as well as human-made environmental damage and disasters.

With the last decade being the warmest on record, the effects of climate change are becoming increasingly noticeable around the world. Governments, businesses and society each have respective roles to play in mitigating climate change if we are to stay within the aspirational 1.5°C of the Paris Agreement. Recognising this, IJM supported



Property Division successfully completed the ISO 14001 certification audit

the launch of the Climate Governance Initiative Malaysia in May 2019, which was formed to work with various stakeholders in developing mutually supportive outcomes to address climate change.

At the last Group Strategic Visioning session, the Board was briefed on climate change and how the present CO₂ emission pathways presents risk and opportunities to the Group's various businesses. In line with SDG 13, we are building internal capacity to address the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

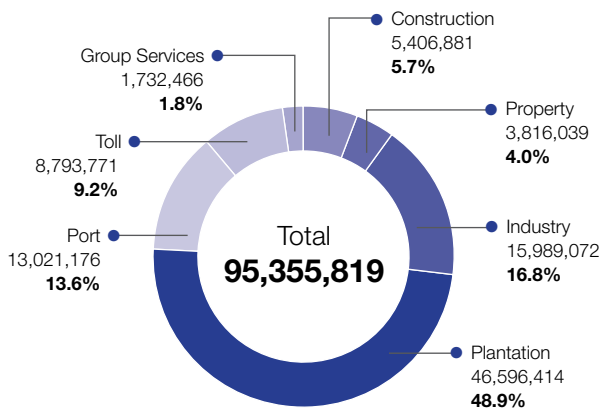
Enhancing energy efficiency

Improving energy efficiency is one of the main ways we manage our greenhouse gas ("GHG") emissions as a means of climate mitigation. As a sustainable business practice, we strive to improve our energy efficiency and use renewable energy in our energy mix as much as possible. As a Group, we consumed 95.4 million kWh of energy in FY2020 where 40% of our energy was generated by renewable sources such as biomass and solar energy. The Plantation, Industry and Port Divisions constitute 79% of the total Group energy consumption.

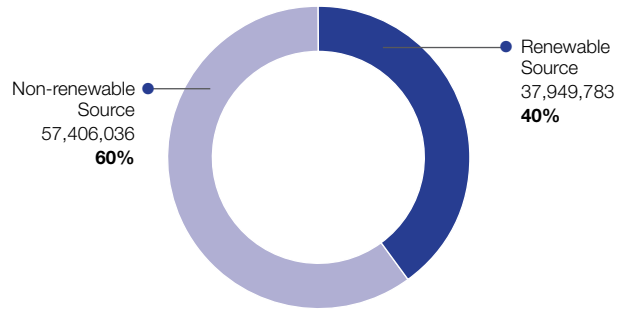


IJM Group Sustainability engaged with the various Divisions on the topic of climate change

Total Energy Consumption by Division in FY2020 (kWh)



Total Renewable and Non-renewable Energy Consumption in FY2020 (kWh)



Rooftop solar photovoltaic (“PV”) systems have been progressively installed at the Industry Division’s factories since 2016 to help mitigate carbon emissions at its operations. The Division’s renewable energy usage avoided a total of 5,758 tonnes in CO₂ emissions since FY2017.

The rooftop solar PV systems have been installed in five ICP factories and have generated a total solar energy of 2.9 million kWh in the reporting year. We are presently undertaking a preliminary energy efficiency assessment on our building premises, including ICP and Durabon factories, to ascertain any opportunities that may further reduce our energy consumption.

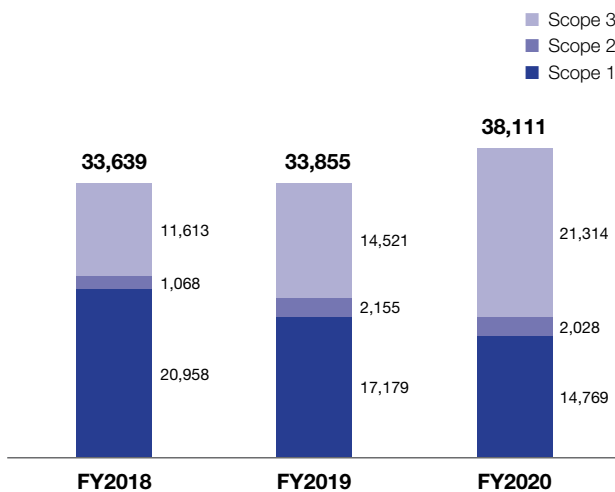
Factories	Kapar	Jawi	Senai	Ulu Choh	Lumut
Solar capacity (kWp)	445	700	666	900	776
Total solar energy generated in FY2020 (kWh)	471,122	729,007	272,212	922,002	528,160

Tackling carbon footprint

We track our carbon footprint emissions in Scope 1, Scope 2 and Scope 3 in accordance with the Greenhouse Gas

Protocol. In FY2020, the Industry Division recorded a 13% increase in the total carbon reduction from the previous year. The biggest reduction was seen in Scope 1 and Scope 3 at 39% and 56% respectively in the reporting year.

Total CO₂ Reduction by Source for Industry Division (tCO₂e)



Note:

- Scope 1: Direct CO₂ emissions that are emitted from sources owned or controlled by our organisation such as from stationary combustion of light fuel oil, diesel and natural gas to produce steam
- Scope 2: Indirect CO₂ emissions that are consumed by our organisation such as purchased electricity for factory use, that may be offset by using renewable energy such as solar PV systems
- Scope 3: Other CO₂ emissions by related activities not owned or controlled by our organisation such as cement purchased for our consumption

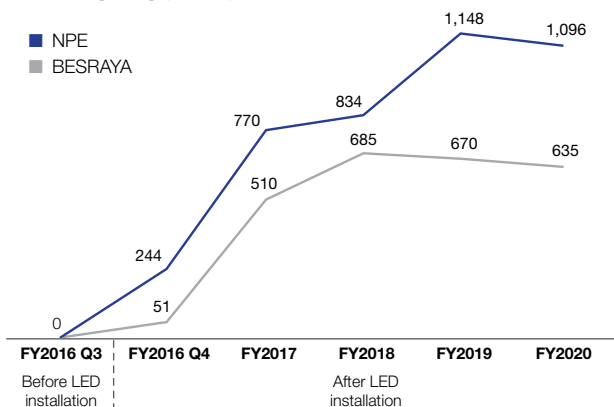
MANAGING ENVIRONMENTAL IMPACT

The Plantation Division closely monitors and measures emissions from its business activities using toolkits that are aligned to the EU Renewable Energy Directive, guidelines from the ISCC 205 – Greenhouse Gas Emissions 3.0 and the Greenhouse Gas Protocol accounting standard. In the reporting year, the Plantation Division saw a 7% increase in total carbon emissions to 231,679 tonnes of carbon dioxide equivalent (“tCO₂e”) from last year, mainly due to the increased volume of Palm Oil Mill Effluent (“POME”) generated, arising from the Division’s additional crop production. However, a reduction was observed in the GHG emissions intensity for both the estate and palm oil mill operations, compared with the base year FY2016. The operational emissions and reduction strategies are reported in detail in the IJM Plantations Berhad’s Annual Report 2020.

We often engage with our customers for feedback to improve our operational efficiency and value of service. In FY2020, the Port Division purchased four units of hybrid Rubber Tired Gantry (“RTG”) cranes to replace the existing conventional diesel-powered yard equipment. At the Port, RTG cranes are used to stack and move containers at the yard. The hybrid RTG cranes are powered partly by electricity allowing for fuel savings of 60%. The new automated equipment will reduce emissions, cut cost and noise while making container handling safer, more productive and reliable. In another effort to conserve energy, the Division is exploring shore power to reduce diesel consumption and cut exhaust emissions when the tugboats are not in use or when on standby. Another initiative of the Port Division is replacing conventional bulbs to LED for all high masts with the main objective to save energy. The replacement will be done in stages in the next reporting period and is expected to see 40% in energy savings.

One of the ways the Toll Division addresses its carbon footprint is through the use of energy saving equipment. Since the installation of LEDs, Besraya Highway (“BESRAYA”) and New Pantai Expressway (“NPE”) have seen a total reduction of 6,643 tCO₂e. This resulted in corresponding cost savings of 49% and 46% for BESRAYA and NPE respectively against the base year FY2016.

Annual CO₂ Emissions Reduction Following Installation of LED Lighting (tCO₂e)



On 4 December 2019, the Toll Division received the Silver Award at the Malaysia Green Highway Index (“MyGHI”) 2018 ceremony for our Kajang Seremban highway (“LEKAS”). The MyGHI manual promotes sustainable green highway construction and its assessment system measures the level of greenness throughout the planning, designing and construction of highways in Malaysia. The LEKAS highway integrates both transportation functionality and ecological sustainability that encourages urban growth while securing environmental stewardship.

Our involvement with industry and stakeholders

IJM sits on the committee that develops the CIDB’s Sustainable Infrastructure Rating Tool (“Sustainable Infrastar”) which was launched in March 2019. The Sustainable Infrastar addresses environmental concerns for the construction industry, and complements other existing tools such as CIDB’s Malaysian Carbon Reduction and Environmental Sustainability Tool (MyCREST) for building construction and the MyGHI by the Malaysian Highway Authority. The West Coast Expressway (Banting to Taiping – Section 4) was used as a pilot project to develop the Sustainable Infrastar rating tool. The rating tool covers infrastructure construction, including highways and roads, railways, water treatment plants, airport rail links, jetties and marinas, sewerage pipe networks, wastewater treatment plants and telecommunication networks.

For the fourth year, IJM continues to sponsor the World Class Sustainable Cities Conference 2019 themed *Next KL2040* – a 20-year plan for the Kuala Lumpur city. This event, held on 19 September 2019, brings together government agencies, city and industry experts, academicians and non-governmental organisations to address challenges of a livable and sustainable Kuala Lumpur and other cities in Malaysia, through better planning, technology and social innovation. On 6 October 2019, the Property Division honoured the Seberang Perai City Council’s elevation to city status through a tree planting programme.



Together with the local authorities and communities, 5,555 Malayan Yellow Dwarf coconut tree saplings were planted in 40 locations throughout Seberang Perai. The programme is in line with the local council's target to turn Seberang Perai into a low carbon city by 2022.

Mitigating through green buildings

By constructing green buildings, we help reduce the impact that buildings have on climate change. At IJM, we work to build environmentally friendly buildings with construction features that ensure efficient use of resources such as water and energy. The market and clients' demand for green buildings sets the tone for our growing list of project portfolios with green building certifications that support SDG 9, to build resilient infrastructure, promote sustainable industrialisation and foster innovation.

List of IJM's completed green building projects

Green Building Index (GBI)	
<ul style="list-style-type: none"> • The Address • Bandar Rimbayu • G Tower • Kondominium Altitude 236 • The Light Linear • The Light Point • The Light Collection I • The Light Collection II • The Light Collection III • The Light Collection IV 	<ul style="list-style-type: none"> • Menara Binjai • Platinum Park Phase 3 – Naza Tower • Somerset Damansara Uptown • The Starling Damansara Utama
Green Real Estate (GreenRE)	
Pantai Sentral Park (Parcel 2)	
Leadership in Energy and Environmental Design (LEED)	
Menara Prudential	

Menara Prudential, a 27-storey Grade-A office tower at the heart of Kuala Lumpur, is the Group's only investment property. The building was recently constructed and has been tenanted since June 2019. Energy and water consumption data for FY2020 were 5.0 million kWh and 40,368 m³ respectively. As a green building, Menara Prudential features several smart and sustainable office building attributes such as the use of smart meters for energy efficiency, rainwater harvesting system, advanced security features as well as being disabled friendly.

PRESERVING BIODIVERSITY AND LAND USE

We recognise our duty to minimise any potential impacts of our activities on biodiversity and the surrounding ecosystem. Our projects undergo the Environmental Impact Assessment ("EIA") prior to project approval and implementation. We seek to minimise our impact on the ecosystem and where appropriate, carry out biodiversity conservation activities.

We have found ways to incorporate biodiversity into our property projects. A prominent feature of The Light Collection project in Penang is the waterways teeming with marine life. As the residential phase has been completed and handed over to the residents, the maintenance of the 1.5 acres salt-water waterways is undertaken by marine aquatic professionals, overseen by the residents' association. The marine life includes corals, turtles and fish species such as baby sharks, blue tang, angelfish, clownfish, pomfret, stingray and threadfin.

Our Erosion and Sedimentation Control Plan enhances project aesthetics and eliminates damage to natural resources. Best management practices include usage of sand bunds for land reclamation works along the seaside to prevent sea pollution, control of surface water runoff by constructing temporary drainage systems to prevent flooding and use of temporary measures such as groundcover, turfing, vegetation and hydroseeding to prevent slope erosions.

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Plantation Division hosted the Human-Elephant Conflict meetings through the Rurality Project by Earthworm Foundation for the Sabah Wildlife Department and affected stakeholders



Community engagement on open burning, initiated by the Plantation Division with local authorities and communities

Responsible planting practices and biodiversity protection

The Plantation Division’s commitment to No Deforestation, No Peat and No Exploitation, established in February 2019, ensures no deforestation of High Conservation Value (“HCV”) and High Carbon Stock (HCS) areas for any new plantings.

The Division implements conservation of HCV areas, areas defined as natural habitats which are rich in biodiversity, and make efforts to rehabilitate the ecosystem found within the Division’s concession areas. One of its estates, Minat Teguh, has demarcation and buffer zones along its 6km boundary with the Kabili-Sepilok Forest Reserve. This acts as a wildlife transition zone between the gazetted forest reserve and the estate.

The Plantation Division has set aside 5,299 hectares of HCV areas in its Malaysian and Indonesian operations for conservation, biodiversity protection and rehabilitation purposes. Poaching is not allowed in these conservation areas and at the adjacent gazetted forest reserves. Regular encroachment and anti-poaching patrols are conducted to monitor any illegal activities. Flood prone areas and wetlands are rehabilitated where suitable tree species are identified and planted in both in-situ and ex-situ rehabilitation sites. Furthermore, IJM Plantations undertakes climate adaptation efforts through tree planting, preservation of riparian reserves and high conservation areas, as well as having water catchment ponds.

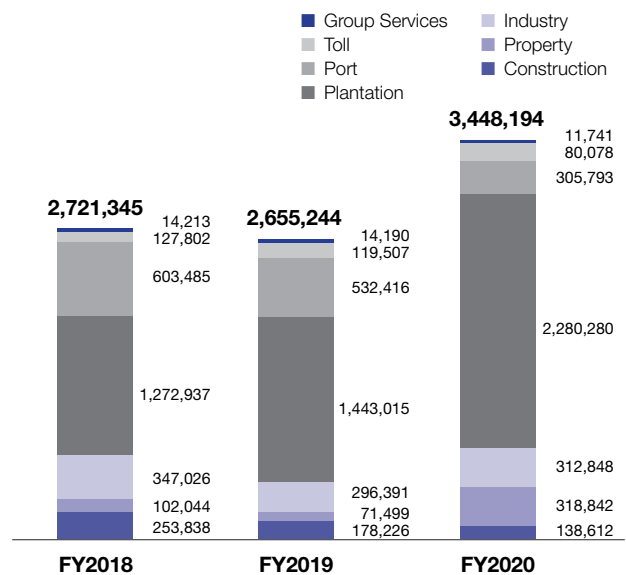
For more information on our efforts, please refer to the IJM Plantations Berhad’s Annual Report 2020.

WATER USE

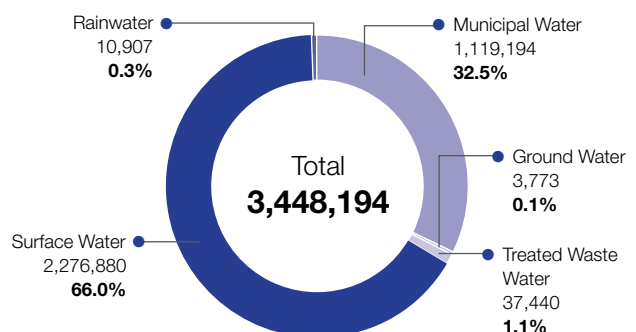
The World Economic Forum’s Global Risk Report 2020 identified water crises as one of the top five global risks by impact. As a business, we acknowledge that water is a critical resource and we are committed to managing our water use and discharges. This is in line with SDG 6 in ensuring the availability and sustainable management of water, as we proactively increase water efficiency across all businesses.

In this reporting period, IJM Group consumed a total of 3.45 million m³ of water. The Plantation and Property Division were the largest consumers, accounting for 75% of our total water consumption. The increase in water consumption by the Group is partly due to enhancements in our environmental management system that has better enabled us to include additional data from our supply chain. During the reporting year, we have been in full compliance with water quality and quantity permits, standards and regulations.

Total Water Consumption by Division (m³)



Total Water Consumption by Source in FY2020 (m³)

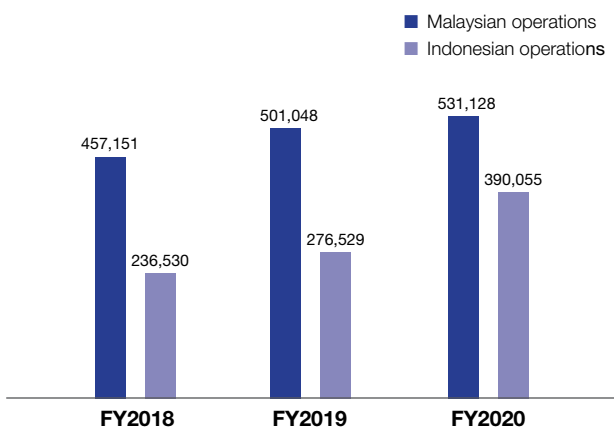




We invest in technologies to treat, reuse and recycle water from our operations so that we can responsibly manage our water footprint while meeting environmental standards. At one of the construction projects, MRT V203, we implement a water treatment system where chemical agents are applied to the water discharged from the site. Similar efforts were previously undertaken at other construction projects at appropriate stages of their construction cycle. Any discharge of water from the construction site will be channeled through this system, which reduces the suspended solids content to below 50 mg/litre. The treated water can either be discharged into the public drainage system or recycled for further use.

Similarly, at our Plantation Division, stringent water management plans and audits are in place to deal with the wastewater generated from palm oil milling activities, comprising different suspended components. Generated POME is treated to meet the stipulated limits and channeled to the fields for land irrigation. River water samples are periodically collected and tested with parameters to ensure no hazardous agrochemicals contaminate the water sources.

Total POME Generated from Oil Palm Mill Operations (m³)



TREATED WATER SAFE FOR DRINKING

At the Plantation Division, treated water supply is provided to all employees and their dependent’s living in the operating units. Treated water samples are tested to ensure the quality is in compliance with the World Health Organization (WHO) drinking water standards.

Several Divisions have implemented rainwater harvesting systems to reduce our consumption of water.

Division	Examples of Harvested Water Usage
Property	Landscaping at Menara Prudential at TRX, Kuala Lumpur; The Arc at Bandar Rimbayu, Selangor; The Light Waterfront, Penang; and residential projects in Sandakan
Industry	Road cleaning at all quarries and factories
Plantation	Mill processing, nursery irrigation and domestic use
Port	Washing bays
Toll	Landscaping and road cleaning at Loke Yew and Eco Majestic Toll Plazas

PREVENTING POLLUTION

IJM upholds the highest level of environmental standards in managing potential environmental risks and pollution at our work sites. We regularly monitor the quality of water discharge, air, noise and vibration levels, including spills at all our sites. Each business division has proper procedures in place to prevent operational spills. No significant spills were reported for the Group during the reporting period. The environmental quality monitoring is carried out to ensure compliance with regulatory limits as defined in the EIA approval conditions or relevant Malaysian standards.

Erosion and sedimentation can cause environmental pollution if not controlled properly. IJM has in place best management practices to control erosion and sedimentation impacts from our activities, that arise mainly from earthworks. All project sites implement suitable practices for erosion and sedimentation control which includes silt traps, check dams, silt fences and slope protection.

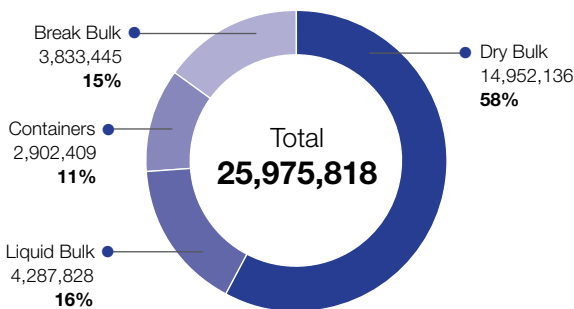
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In FY2020, nine Property Division projects, all with more than 50 hectares each, performed the EIA. The Division adapted the Environmental Quality Monitoring Programme at its projects to monitor and protect the surrounding environment from risks of pollution. The Division is in compliance with the EIA requirements on water quality, silt trap discharge, and air, noise and vibration levels.

The Industry Division monitors air, water and noise quality. At our quarries, apart from the sprinkler system applied at our production areas, dust pollution is minimised through road spraying exercises with collected rainwater. Fugitive dust are also controlled by limiting vehicle speed at 15 km per hour at operating areas. Where possible, the Division also uses *Kelat Paya* trees to create dust barriers to protect roads and the surrounding environment. We have also employed hydroseeding on loose soil on slopes to catalyse grass growth for soil erosion control. Hydroseeding involves the application of slurry, combining seeds and mulch to ensure quick growth, and is now widely used to control soil erosion on hillsides. Over 5,000 sq ft of sloping ground at each site have now been planted using the technique.

The Port Division handles various forms of bulk cargo, and continuously seeks to improve its handling methods for productivity gains, health and safety practices as well as to minimise the environmental impacts. In July 2019, the Port Division completed the installation of a CB6 conveyor system that consists of a ship loader, stacker (bucket wheel) reclaimers, belt conveyor and corridor as well as the steel structure of the transfer station. The new conveyor system decreases the likelihood of cargo spillage at port roads, berth areas, trenches and the sea. Moving forward, the Division will extend the use of this system to other types of bulk cargo such as iron ore and manganese ore. Ongoing efforts to reduce air pollution in the port area are the use of water retention ponds, sprinklers and washing bays at the yard area and exit gate to ensure that cargo trucks are cleaned before going back onto public roads.

Port Division's Throughput by Cargo Type in FY2020 (Freight Weight Tonnes)



Dust control via the power broom and access retractable gate



Port Division collaborates with Gebeng Fire Department and CSA Chemicals Sdn Bhd for a chemical spill and fire drill



Noise barriers installed to ensure environmental impact due to noise generation is minimised

Heavy downpours and surrounding developments around our highways can cause flash floods. Our Toll Division has taken a few measures to minimise the impact of these flash floods by coordinating with neighbouring project developments, conducting routine cleaning work, desilting, pumping via portable water pumps, upgrading the drainage and constructing retention sumps. The Toll Division has also put in counter measures to eliminate the risk of slope failure through a combination of hydroseeding and vibromat protection or gabion and permanent sheet piles.



Erosion Control Blanket for temporary slope protection

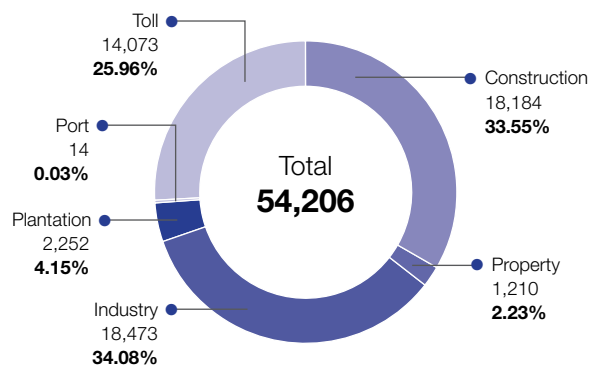
RESPONSIBLE HANDLING OF RAW MATERIALS

Aggregates, cement, concrete, sand, steel, timber and diesel constitute the main components of our raw materials mix. Materials like these are essential inputs to the development of the commercial and residential buildings, transportation and industrial infrastructures that drive economic growth. While we are unable to control the demands of our clients, we strive to make the most efficient use of these materials. We remain committed to source raw materials responsibly from reliable vendors; where raw materials are produced in a responsible manner.

REDUCING AND MANAGING WASTE

We aim to reduce the amount of waste we generate and to reuse or recycle materials. We also ensure that waste is disposed in accordance with the highest standards of environmental practices. In FY2020, IJM Group generated 54,206 tonnes of wastes, mainly from the Construction, Industry and Toll Divisions. In the reporting period, 19% of our waste footprint was reused or recycled.

Total Scheduled and Non-Scheduled Waste Generated in FY2020 (MT)



Recycling and reusing waste

The Construction Division manages wastes according to the requirements set by the law and industry certifications such as the Green Building Index. Wastes such as timber, steel and concrete are segregated at the point of generation. We also designate waste collection points at construction sites where licensed contractors are responsible for the waste disposal. We make best efforts to reduce the amount of waste sent to the landfills by recycling and reusing construction wastes on-site. Moving forward, the Division intends to work on identifying the source of waste generation at the planning stage and explore means to reduce the waste before it is generated.

Reused or Recycled Construction Waste

Waste Type	Reused (MT)	Recycled (MT)
Timber	17	722
Steel	17	401
Concrete	4,311	3,048

In the reporting year, IJM was awarded the Certificate of Appreciation by the Solid Waste and Public Cleansing Management Corporation (SWCorp) for our Best Practices on Construction Solid Waste Management at the Affin Bank Project at TRX.

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In support of World Environment Day, Property Division organised the Spring Cleaning and Recycling Day at Seremban 2 to raise environmental awareness

Since January 2016, our Industry Division has been reclaiming concrete waste generated from operations. The concrete reclaimer is used to segregate sand, aggregates and slurry effluents from unused concrete resulting in cost savings and effective waste management. In FY2020, the system reclaimed 382 tonnes of sand and 479 tonnes of aggregates for production use instead of landfilling. The recovered sand and aggregates are mixed into the stockpile and reused in production. Slurry effluents from the concrete reclaimer flows into the tank and allows suspended particles to settle out of water as it flows slowly through the tank, thereby providing recycled water. Water separated by this method, totalling 903 m³, is reused for concrete batching, truck washing, sprinkler systems and cleaning purposes.



Designated bins provided to segregate between different types of construction waste

Our Plantation Division generates oil palm biomass which includes chipped trunks from replanting, fronds, empty fruit bunches, shredded fibre and shells, which are effectively utilised and recycled as organic matters back to the fields, or as a fuel source, reducing the use of fossil fuels.

By-products Generated from Mill Operations

Raw Material	Percentage Recycled from Raw Materials	Usage
Fibre	100%	Fuel
Shell	98%	Fuel
Empty fruit bunches	95%	Mulch and fuel



Commenced replanting phase in Sugut region with the first planting in Sungai Sabang estate

Handling scheduled wastes

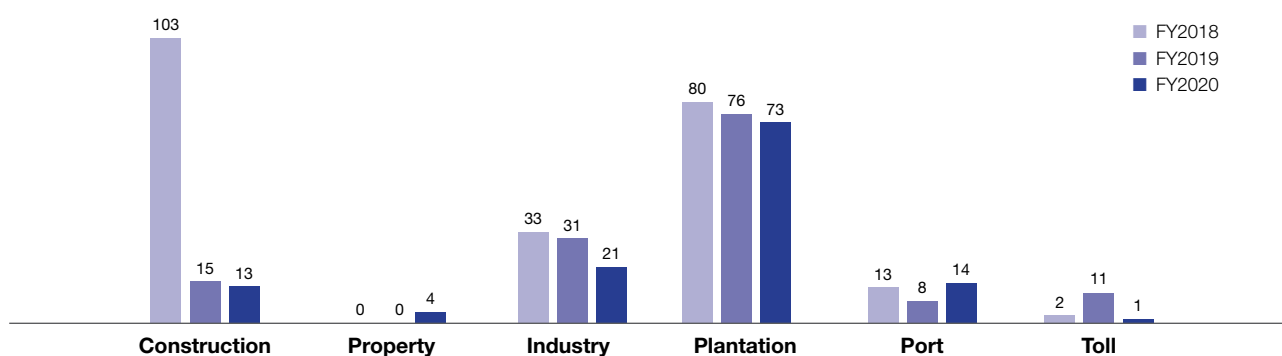
We manage scheduled wastes according to the stipulated legislations where a designated storage area is constructed at all sites based on guidelines and specifications. Licensed contractors are appointed to transport these wastes off site to a treatment facility. We emphasise on reducing the generation of such wastes through proper handling of chemicals or materials that are disposed as scheduled wastes. We inspect and maintain our machineries and equipment frequently to avoid any spillage or leakage that may contribute to the generation of scheduled wastes.

In FY2020, our Construction and Industry Divisions received notifications of non-compliance with environmental laws and regulations relating to storage of scheduled wastes exceeding the allotted time limit of 180 days.



Centralised and fully equipped storage for scheduled wastes

Scheduled Wastes by Division (MT)



E-waste or electrical and electronic equipment wastes can be a valuable resource as different materials within the equipment can be recycled and reused as new raw materials if treated properly at the end of life. IJM practices

the disposal of this scheduled waste as set under the Environment Quality (Scheduled Wastes) Regulations 2005, via contractors registered with the State Environmental Department.

Electrical and Electronic Equipment Wastes (By Number of Units)

E-waste Type	2017	2018	2019
Monitors	96	50	80
Desktop computers	78	101	80
Notebook computers	59	39	24
Printers	37	31	47
Servers	-	27	-
Others i.e. scanner, fax machine, AVR, UPS, keyboard, hard disk, projector, network equipment	56	122	2