

Executive Summary

Delivery companies and intermediaries¹ can improve rider/driver safety by taking the following measures:

<u>Create stronger rider/driver motivation to be safe</u>

Guideline 1: Provide riders/drivers with feedback on safety behaviour using telematics

Companies and intermediaries should provide their riders/drivers with feedback on their riding/driving behaviour. This could be done through the use of on-board telematics devices or the platform's app, to minimally monitor vehicle speed. The data should be used to engage and advise riders/drivers that show repeated instances of risky behaviour.

Guideline 2: Provide riders/drivers with benefits for safety

Companies and intermediaries could implement safety benefit or recognition mechanisms to encourage safe riding/driving behaviour, and counter any inadvertent rushing.

Equip riders/drivers with the knowledge to be safe

Guideline 3: Facilitate defensive driving/riding training

Companies and intermediaries should encourage and provide free defensive driving / riding training for their drivers and riders. It should minimally cover theory on road traffic rules, and practical components on blind spot awareness, braking and balancing techniques.

Reduce exposure to risky situations

Guideline 4: No penalty for declining heavy loads (applicable for two-wheeled vehicles only)

Companies and intermediaries should allow riders to call for additional riders or to split the load, without any penalty in compensation. If a heavy load cannot be split, companies and intermediaries should compensate the rider for the time spent in travelling to the pick up location, on a pro-rated basis, even when the rider declines to take the load upon discovery that it is too heavy. In such situations, the onus is on the rider to prove that the load exceeds the vehicle's load limit and cannot be split.

Guideline 5: No bonus or penalty based on single-trip delivery time

Companies and intermediaries should not set any bonus, or penalty, to deliver within a certain time per trip. To influence end customers to refrain from rushing riders, companies and intermediaries should also notify customers to expect delivery delays with bad weather.

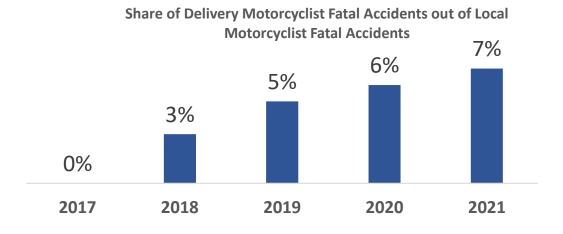
¹ The term "Delivery companies" refers to companies that deliver goods via employees, self-employed persons, or a mix of both. The term "intermediaries" refers to companies that match self-employed persons with demand for their delivery services.

1 Accident Risk Faced by Delivery Riders

Consumers have benefited from greater convenience with the growth in food, grocery, and e-commerce delivery. However, there are safety risks for people involved in delivery work, especially those riding motorcycles, bicycles and Power-Assisted Bicycles (PABs).



This is largely linked to the risks associated with riding two-wheeled vehicles on public roads. With rising demand for delivery in recent years (average annual growth rate of around 6% in delivery rider workforce² from 2016 to 2021), the share of delivery riders among fatal motorcycle accident victims has also been rising³. There were 41 local motorcyclist deaths (of which three were delivery riders) in 2021, translating to a fatality rate of 29 per 100,000 local motorcycles. This is significantly higher than the overall workplace fatality rate of 1.1 per 100,000 workers and the local motorist fatality rate of 5 per 100,000 motor vehicles in the same year, reflecting the inherent risks of motorcycle commuting.



² Source: Ministry of Manpower

³ Source: Singapore Police Force and Ministry of Manpower. The formula used for the calculation is as follows: (No. of delivery motorcyclist fatalities / No. of local motorcyclist fatalities) x 100 = %

Reducing delivery rider accidents, however, will be challenging. Unlike conventional workplaces like factories or construction sites, where the occupier has strong influence over workplace safety, delivery riders are subjected to external elements, like other road users' actions, which they or their employers or platform intermediaries have limited control over.

To complement the Land Transport Authority (LTA's) ongoing measures to improve safety for all road users, tripartite stakeholders in the delivery industry banded together in a workgroup (see page 10 for composition) to make delivery a safer vocation by reviewing factors they can control. In terms of what riders can do, the WSH Council published the <u>Guide to Safe Riding on Motorcycles, Bicycles, PABs, PMDs and PMAs</u>⁴ in 2018, which was updated in 2021. It advises delivery riders on safety steps they can take, such as keeping a safe distance from vehicles, avoiding their blind spots, and getting enough rest between work shifts.

2 Guidelines for Delivery Companies and Intermediaries to Prevent Accidents

This set of guidelines augment the 2018 Guide to Safe Riding, by recommending what delivery companies and intermediaries should do in terms of their systems and infrastructure to improve safety. They are intended to cover delivery work involving both employees and self-employed persons, for both food and non-food products. While riders of two-wheeled vehicles are more susceptible to suffering injuries compared to drivers, most of the guidelines apply to four-wheeled delivery vehicles as well, with the exception of Guideline 4 on "No penalty for declining excessive loads".

These guidelines took into account inputs from delivery riders gathered by the National Delivery Champions Association (NDCA)⁵. The riders highlighted that they sometimes rushed to make deliveries to maximise their earnings. This would be especially risky when faced with bad weather conditions, when roads could be slippery, and when handling heavy loads, which could imbalance their two-wheelers.

The guidelines are categorised into three broad factors to address the risks that riders face:

- i) Create stronger rider **motivation to be safe** this would mitigate any inadvertent temptation among riders to rush
- ii) Equip riders with the **knowledge of how to be safe** this is because motivation without capability cannot be put into practice; and
- iii) Reduce riders' **exposure to unsafe situations**, such as carrying heavy loads and rushing during bad weather.

⁵ The National Delivery Champions Association (NDCA) is an association which represents self-employed persons whose main source of income are from food or package delivery.

⁴ URL - https://www.tal.sg/wshc/resources/publications/guides-and-handbooks/guide-to-safe-riding-on-motorcycles-bicycles-pabs-pmds-and-pmas

3 Guidelines

<u>Create Stronger Rider/Driver Motivation to be Safe</u>

3.1 Guideline 1: Provide riders/drivers with feedback on safety behaviour using telematics





To counter any inadvertent rushing by delivery riders/drivers, they should be given feedback on their driving or riding behaviour. Behaviour can be tracked by on-board telematics devices (referring to devices that store and transmit vehicle data) or by smartphone apps that monitor speed and acceleration/braking parameters. Having real-time audio cues to warn riders of unsafe riding could be an added feature. Some delivery companies already attach telematics devices to vehicles or utilise GPS and accelerometer functionality in their mobile apps for this. One company reported a significant reduction in speeding incidents after telematics tracking was implemented. While such technology need not provide real-time warnings, the ability of the rider/driver to understand his/her behaviour after-the-fact can be an effective check against risky behaviour.

Delivery companies and intermediaries are encouraged to provide drivers and riders with feedback on speed at the minimum, through on-board telematics devices or via the delivery intermediaries' app. It would be ideal if companies and intermediaries have the capability to match speed limits based on location. Otherwise, a flat 50km/h could be set as a reasonable limit⁶ for most roads in Singapore. The data should be used to engage and advise riders/drivers that show repeated instances of risky behaviour, such as speeding. They could also be encouraged to attend the defensive driving/riding training provided under Guideline 3. For recalcitrant riders or drivers, companies or intermediaries could consider more serious action to protect such workers and other road users, such as suspension.

Some intermediaries have explained that it would require a substantial overhaul of their apps' software in order to provide speed tracking at a meaningful frequency and accuracy, and so they would not be able to attain such capability in the near term. In such

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⁶ 50km/h is the default speed limit stipulated in the Road Traffic (Restriction of Speed on Roads) Notification, unless the road falls under the first to sixth schedules of the Notification.

cases, intermediaries should encourage their contracted riders to use third-party safety apps (e.g. Flare) so that the riders can obtain feedback on their own riding habits on their own.

3.2 Guideline 2: Provide riders/drivers with benefits for safety



To further encourage safe driving and riding behaviour, delivery companies and intermediaries could **implement safety benefit or recognition mechanisms to acknowledge, encourage and reinforce safe driving and riding behaviour**. Some possible mechanisms include:

- Monetary or non-monetary incentives after a certain number of hours worked, without incurring any road traffic infringement (or without any instance of speeding as tracked by telematics devices or apps, if the company or intermediary has such capability).
- Establishing a ranking list of "safest drivers/riders" under each company or intermediary
 to provide a sense of achievement for having the best driving/riding behaviour.
 Evidence of such achievement could also provide a competitive edge in future work
 opportunities.
- Safety campaigns or roadshows to raise awareness on safe riding practices.

Equip Riders/Drivers with Knowledge of How to be Safe

3.3 Guideline 3: Facilitate defensive driving / riding training



With reference to the WSH Act, both employers and principals should ensure that their employees and contractors (as the case may be) have adequate instruction, information, training and supervision as is necessary to ensure their safety and health at work.

This requirement can be addressed by ensuring that delivery workers are licensed to operate their vehicles, which delivery companies and intermediaries already require. Nonetheless, some workers may have received their license training many years ago, or may not be used to driving and riding at the intensity needed in their delivery work. In addition, delivery riders using bicycles would not have undergone licensing training and may not be familiar with road traffic rules.

Delivery companies and intermediaries should thus **provide defensive driving / riding training** for any driver or rider they employ or who contracts with them or uses their platform, who wants to avail himself or herself to the training. Delivery companies and intermediaries could also encourage their drivers and riders to undergo the training by introducing benefits to be trained, such as eligibility to higher benefit tiers.

The training should be provided free-of-charge to delivery workers, could be done inhouse, or through training providers, and should cover the following content in Table 1 below. Refer to **Annex A** for a non-exhaustive list of training providers and their courses.

Table 1: Recommended theory and practical training topics.

Theory	Practical
✓ LTA Active Mobility rules comp	liance [For Bicycle users]
✓ Road Traffic Rules	✓ Balancing with a delivery load
✓ Physical well-being	✓ Stations (Mount/Dismount, Straight & Slow, Hand Signals, E brake etc.)
[For Motorcyclists]	✓ Understanding of vehicle blind spots
✓ Attributes of a good rider	
√ Finer points of riding (posture,	[For PAB users]
eyeline, habit etc.) ✓ Identifying potential hazards ar	✓ Safety checks and maintenance of PAB (brake, wheel, tire, frame etc.)
applying corrective measures	✓ Understanding of vehicle blind spots
✓ Compensating for the mistakes other motorists	of [For Motorcyclists]
[For Drivers]	✓ Pre-ride check (tyres, chain, sprocket, belting & shaft etc.)
√ Common causes of road accide	nts ✓ Static training
and their consequences	✓ Riding postures and balancing techniques
√ The main cause of driving error	s – ✓ Techniques of negotiating a bend
Decision-Making – driver's phy	sical ✓ Braking techniques
and mental conditions	✓ Different types of braking techniques
✓ Environment and vehicle's cond	dition Understanding of vehicle blind spots
	[For Drivers]
	✓ Experiential Learning – Practical driving along a designated route to observe and learn from other participants' driving

Reduce Riders' Exposure to Unsafe Situations

3.4 Guideline 4: No penalty for declining excessive loads (applicable for two-wheeled vehicles only)



To address riders' concern about handling their vehicle safely with heavy loads, there should be a framework to remove the need for riders to take on heavy loads. Delivery companies and intermediaries already reduce risk of excessive loads by limiting the volume to be delivered to what can fit into riders' delivery bags. However, this does not account for delivery weight. For motorcycles, the maximum load weight should be based on their manufacturers' specifications. For example, 650cc motorcycles typically have a maximum load (comprising rider, passenger and all cargo) of 200kg. For bicycles and PABs, the maximum load is not well-established and will vary depending on wheelbase and size. WSH Council and NDCA are collaborating with the Nanyang Technological University to conduct a research study to determine a practical safe load limit for bicycles and PABs.

Once a safe load limit for bicycles and PABs has been established, if the rider determines that the load is excessive (either based on the motorcycle manufacturers' load limit, or the safe load limit found for bicycles and PABs), and it is feasible for the load to be split (e.g. separately-packaged items) delivery companies and intermediaries should allow riders to call for additional riders or drivers to split the load, or split the delivery load across multiple trips, without any penalty to, or reduction in compensation for the rider. This means that for a rider who splits the load with others, he/she gets full compensation as if he/she delivered the complete load. For a rider who makes multiple trips, he/she should get full compensation for completing the delivery and extra compensation for the effort made. Alternatively, the rider may opt to cancel the job with no penalty to the rider.

To reduce the likelihood for riders to take on excessive loads by himself/herself if a heavy load cannot be split (e.g. a single piece of furniture), delivery companies and intermediaries should ensure that the rider is compensated at least proportionally for the time spent in travelling to the pick-up location, even though he/she declines to take the load upon discovery that it is too heavy. To qualify for the payout in such situations, the onus is on the rider to prove that the load is beyond his/her vehicle's load limit and cannot be split (e.g. by sending photos of the load, and its weight reading on a scale).

It would be ideal for companies to have systems or algorithms to identify the weight of delivery orders upfront, and assign four-wheeled vehicles to handle heavy loads. Nonetheless, delivery companies and intermediaries explained that it would be extremely challenging to develop a database of the immense variety of goods to be delivered, many of which may be one-off items with no previous record (e.g. with e-commerce delivery). While there are near-term constraints to develop such a database, this should be a longer-term aspiration that would eliminate downstream issues with riders encountering heavy loads and claiming payout.

3.5 Guideline 5: No bonus or penalty based on single-trip delivery time



To address riders' concerns about delivery in adverse weather (e.g. heavy rain), which might be coupled with a surge in delivery demand, delivery companies and intermediaries should adopt the following measures:

- Not to set any limit, or penalty, or bonus to deliver within a certain time on a per trip basis. This should apply regardless of weather conditions, but is especially relevant in bad weather.
- To **notify customers to expect delivery delays** with bad weather.
- To remind riders to take safety precautions including seeking shelter during bad weather, in their regular engagement with their drivers and riders.

4 Conclusion

The tripartite workgroup that formulated these guidelines hope that delivery companies and intermediaries can enhance their systems and infrastructure – factors that are within their control – based on these guidelines. This would allow delivery work to be a safer vocation, providing better peace of mind for the workers and their families.

5 Workgroup Composition

Organisation	Contributor(s)
WSH Council (Hospitality and	Ms Kwee Wei-Lin (Advisor)
Entertainment Industries)	
Committee	
Grab	Mr Iskandar Abdullah, Mr Gabriel Ng, Ms Mabel Li
Deliveroo	Mr Jason Parke, Mr Kartavya Bhola
Foodpanda	Mr Drew Shih, Ms Amanda Goh, Ms Fiona
	Tan Ying Qian
McDonalds'	Ms Yeo Siew Kee, Ms Sharon Choi
Domino's Pizza	Mr Muhammad Haffis Sharizal Bin Affandi
SingPost	Ms Michelle Lee, Mr Jerome Yap, Mr Andy
	Kong
Ninja Van	Mr Kenny Leow, Ms Seet Mei Ling
J&T Express	Mr Martin Tan, Mr Tan Beng Huat, Mr
	Jimmy Tan
Redmart	Mr Daryl Teo, Mr Willy Tan
Singapore Police Force	Mr Jimmy Law
Ministry of Manpower	Ms Ng Huiying
National Delivery Champions	Ms Lim Yeu Ai
Association	
WSH Council Office	Mr Christopher Koh
	Mr Chan Yew Kwong
	Ms Julia Ng
	Mr Edd Hong
	Mr Ye Jianhong

Annex A – List of Training Organisations and Courses

- Comfort Delgro Defensive Driving Course* https://www.cdc.com.sg/course/defensive-driving-course
- Comfort Delgro Ride Safe Course –
 https://www.cdc.com.sg/course/ride-safe-course
- Singapore Safety Driving Centre Defensive Driving/Riding Course https://ssdcl.com.sg/courses/defensive-driving-riding-course/
- Singapore Safety Driving Centre Safe Driving Course (SDC) https://ssdcl.com.sg/courses/safe-driving-course/
- Ngee Ann CET Academy Occupational Safety for Delivery Personnel (Motorcyclist)* https://www.cet.np.edu.sg/courses/occupational-safety-for-delivery-personnel-motorcyclist/
- Ngee Ann CET Academy Occupational Safety for Delivery Personnel (Cyclist & Walker)* https://www.cet.np.edu.sg/courses/occupational-safety-for-delivery-personnel-cyclist-walker/
- Ngee Ann CET Academy Service & Food Hygiene For Delivery Personnel* https://www.cet.np.edu.sg/courses/service-food-hygiene-for-delivery-personnel/
- Guide to Safe Riding on Motorcycles, Bicycles, PABs, PMDs and PMAs https://www.tal.sg/wshc/resources/publications/guides-and-handbooks/guide-to-safe-riding-on-motorcycles-bicycles-pabs-pmds-and-pmas

^{*}Denotes Skillsfuture claimable courses. Information above is accurate as at 18 Oct 2022.

Annex B – Examples of Guidelines Adopted by Delivery Companies and Intermediaries in the Workgroup

<u>Create Stronger Rider Motivation to be Safer</u>

Guideline 1: Provide riders/drivers with feedback on riding/driving behaviour using telematics

Deliveroo

Deliveroo has been partnering with a technology company since September 2021 to offer access to a road safety app in which all their active riders in Singapore can benefit from multi-layered safety functions.

For incident detection, the app monitors sensors via the phone if a rider is involved in a road incident. If a rider is unresponsive after five minutes, Deliveroo's dedicated rider support will be alerted, alongside the rider's emergency contacts. The app also allows riders to flag out danger hot spots such as blind spots or potholes via app reporting. The safety information will be shared with Deliveroo so they can work with local authorities to solve persistent safety issues or look to improve high-risk areas. This information can also be shared among other riders using the same app.

There is also an alert function to other road users, where the app alerts nearby drivers (such as drivers of trucks, lorries and cars) via a pairing app when Deliveroo riders are nearby to prevent incidents and enhance safety. If a rider faces mechanical issues, they are able to send out an in-app message to other riders on the app for support.

Deliveroo currently promotes the free premium access to this third-party app in their rider communications regularly to increase adoption further. It will be done in a continuous manner.

Grab

Grab's motorcycle delivery partners receive regular telematics reports on their driving patterns such as speeding, braking, and cornering. A regional experiment in 2020 involving driver and delivery partners demonstrated an 8% reduction in overspeeding rides for those provided with Grab's Driving Safety Report.

McDonald's Restaurants

McDonald's introduced a Rider Safety Tracking System with lamtreked GPS tracking device in all its motorcycles in September 2021. The device tracks riders' behaviour in terms of whether they are speeding or frequently have harsh breaking or harsh cornering. The collated information is summarised and sent to the branch manager for review monthly. Riders who exhibit dangerous riding behaviours based on trend data would be counselled.

Since the introduction of the tracking system, McDonald's has seen an improvement in rider behaviours. On average, McDonald's has seen a 50% drop in the number of unsafe behaviours in 2022 as compared with 2021.

SingPost

SingPost's current Fleet Management System (FMS) monitors and provides reports on their drivers' and riders' behaviors and performance including speed violations, driver behaviors such as hard braking as well as other pre-defined occurrences.

The reports are reviewed by the supervisors weekly. Drivers and riders who consistently show unsafe driving/riding behaviours will be counseled by their supervisor.

Since the implementation of the FMS in the second quarter of 2021, SingPost has observed a huge improvement in preventing vehicular accidents that resulted in injuries (reduction of over 90%).

Guideline 2: Provide riders/drivers with benefits for safety

McDonald's Restaurants

McDonald's has in place various incentives, monetary and non-monetary, to recognise and encourage good riding behaviours and customer service among its riders. For example, riders who abide by traffic rules and do not have any traffic offence summons or accidents would receive a waist pouch as a Road Safety Ambassador on a quarterly basis. The Super Rider of the Year would receive a cash reward of \$500.

SingPost

SingPost includes safety KPIs in their monthly incentive scheme that rewards staff for good riding/driving behaviors. There are both group and individual components to the incentives. The safety performance of the rider/driver is monitored and determined from their involvement in any traffic incidents. All cases will be reviewed comprehensively as the staff rider/driver involved in the vehicular accidents may not necessarily be the responsible party despite their involvement.

Equip Riders with Knowledge of How to be Safe

Guideline 3: Facilitate defensive driving / riding training

Deliveroo

Deliveroo provides regular weekly slots for riders to participate in the Defensive Riding Course and Advanced Defensive Riding Course offered by ComfortDelgro Riding Centre. It is available to all delivery riders free of charge and is conducted during off-peak hours to encourage rider participation.

To push the initial adoption, beyond offering the course for free, Deliveroo has provided riders with additional incentives such as free additional/exclusive kit or Deliveroo Plus subscriptions to further encourage them to participate in their courses and other safety initiatives.

Deliveroo is currently piloting a similar Safe Riding Course for Cyclists and Power Assisted Bike (PAB) Riders curated and run by the Singapore Cycling Federation.

Grab

Grab's delivery-partners are provided with customised training programmes conducted in partnership with Asian Detours, ComfortDelGro Driving Centre and Ngee Ann Polytechnic.

The training programmes aim at improving the standards of service, road safety and food hygiene, as well as equipping their delivery-partners with a greater understanding of occupational safety.

The curriculum consists of both theory and practical components, covering topics such as road regulations, vehicle maintenance, sharing public pathways, practical tips on balancing with a delivery load, as well as defensive riding techniques on braking, cornering and skid management. Course fees are claimable using Skillsfuture Credits.

McDonald's Restaurants

McDonald's currently has a monthly Ride Safe Class collaboration with the Traffic Police. They also put up a poster on riding safely at their "rider's corner" to remind riders on safe riding. Branch Managers will also brief their riders before they commence work. A "Ride Safe" reminder is also sent out to their motorbikes fleet regularly.

SingPost

Singpost mandates that all new staff riders and drivers are to participate in a defensive riding/driving course before they commence work. Staff involved in any safety incidents will be required to undergo a refresher course.

Reduce Riders' Exposure to Unsafe Situations

Guideline 4: No penalty for declining excessive loads

Deliveroo

If Deliveroo riders find that they are unable to carry the load safely at the collection point, they are free to either cancel the job (without penalty) or contact Rider Support to inform Deliveroo that additional riders will be required to complete the delivery.

The rider does not need to wait for the additional rider and may proceed to split the load and take a part of the delivery order for delivery. The rider would receive the original compensation he/she would have received if he/she delivered the entire load.

Foodpanda

If foodpanda riders find that they are unable to carry the load safely at the collection point, they may contact foodpanda's rider support to request for the load to be split with additional rider(s).

The rider does not need to wait for the additional rider(s) to arrive and may proceed to split the load and complete the delivery. The rider would receive the same compensation that he/she would have received had he/she delivered the entire load.

McDonald's Restaurants

McDonald's has in place a protocol that a rider can only be assigned to deliver a maximum of 8 drinks for each order. Anything beyond 8 drinks would be delivered by 2 riders or assigned to a third party delivery driver.

SingPost

SingPost will split delivery loads through multiple trips when required. Excessive loads are not forced upon the riders or drivers.

Guideline 5: No bonus or penalty related to single-trip delivery time

Deliveroo

Deliveroo does not impose any time limit on the delivery of orders. However, riders are expected to fulfil their obligations from the time of accepting an order to collect the food from the restaurant and then deliver the order directly to the customer within a reasonable time period and using a route they deem to be safe and efficient.

Deliveroo also reminds impacted consumers about expected delays due to bad weather or big events involving road closures through various in-app notifications when they are placing their orders.

Foodpanda

Foodpanda does not deduct or provide additional fares to riders to complete a delivery order within a certain time. In addition, riders can pause their shifts any time they wish to, including if they feel they need to take a break or do not feel safe riding in the prevailing weather conditions.

McDonald's Restaurants

During bad weather, McDonald's ordering platform would put up a banner on their ordering platform to inform customers that their orders would take longer to reach them. It would also remind its riders to wear raincoats and ride safely due to bad weather. If it is raining heavily, the ordering platform would stop taking delivery orders.

SingPost

There is no bonus nor penalty scheme that is tied to the riders' and drivers' delivery timeframe. Riders are advised to stay within sheltered conditions before continuing with their delivery during inclement weather. If the riders are at the delivery base during bad weathered conditions, they will be instructed to remain at the base until the weather improves.

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