

# **The Shared Road To Safety**

## **A Global Approach for Safer Motorcycling**

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# Overview

1. Introduction to IMMA
2. Use of Powered Two-Wheelers (PTWs) and trends worldwide
3. 4 stage approach to safety
4. Best practices
5. Revision of the 1958 Agreement under WP.29
6. Conclusion

# Introduction to IMMA

- IMMA represents the combined skills and interests of the powered two- and three-wheelers (PTWs) manufacturing industry at the global level.
- Regional and national industry associations representing the PTW industry in Australia, Canada, Europe, India, Japan, South-East Asia, and the United States.

|   |  |   |
|---|--|---|
|   |   |   |
|  |  |  |

# Introduction to IMMA

- Consultative status with the United Nations Economic and Social Council (ECOSOC)
- Over 50 years of contributions to WP.29, The World Forum for Harmonisation of Vehicle Regulations and WP.1 Road Safety Forum.
- IMMA is member of International Road Traffic Accident Database forum (IRTAD), United Nations Road Safety Collaboration (UNRSC) and of the global vehicle lighting technology forum (GTB).



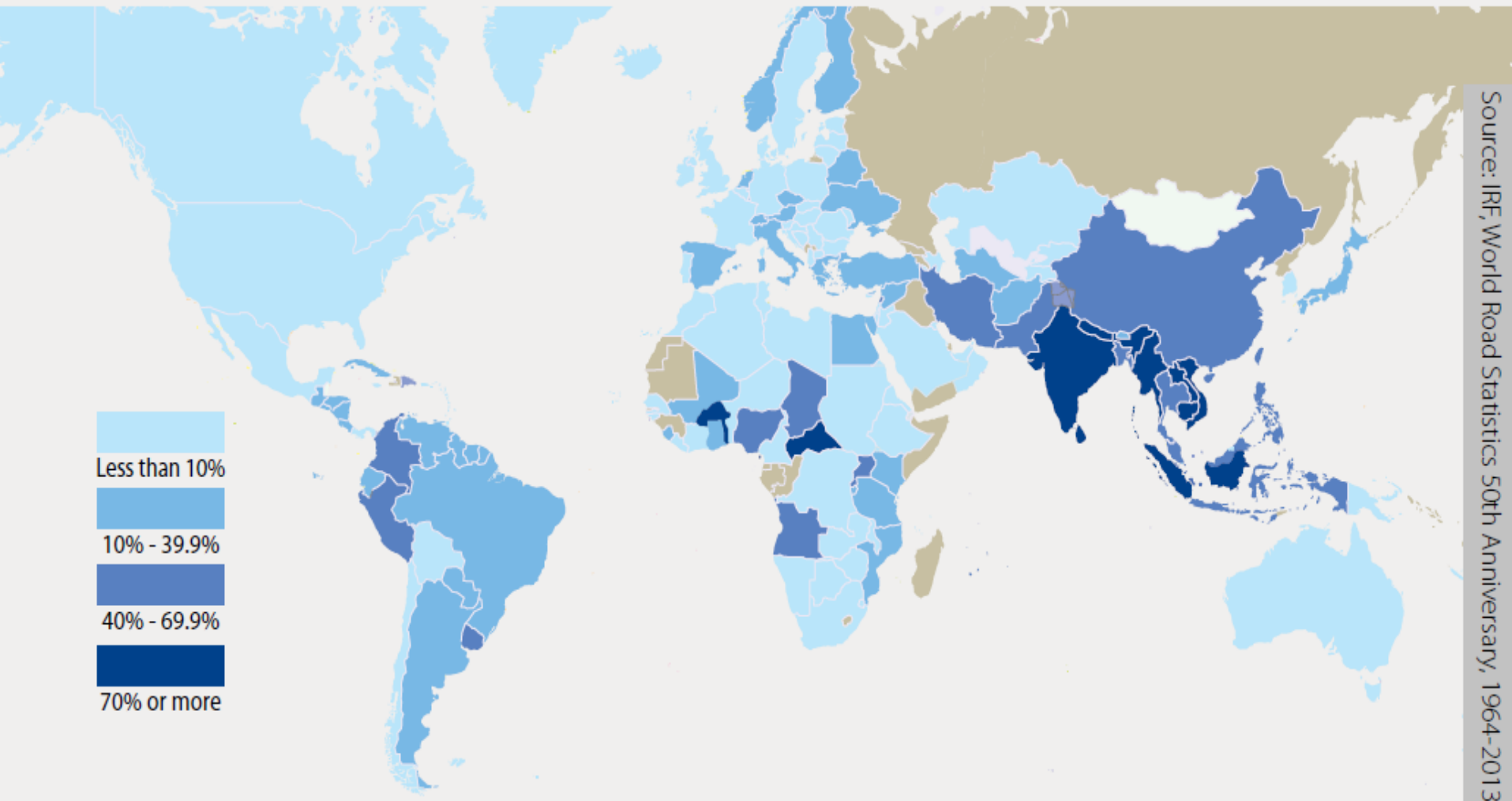
# Diversity in use of PTWs in general



**Even more diversity globally**

# Variation of PTW presence in the transport mix

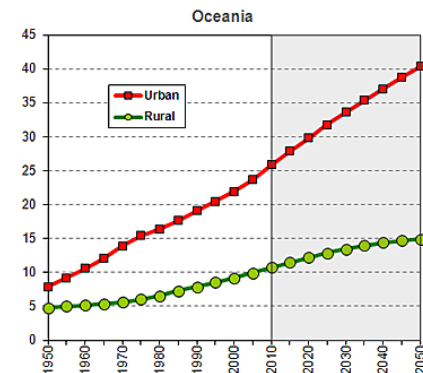
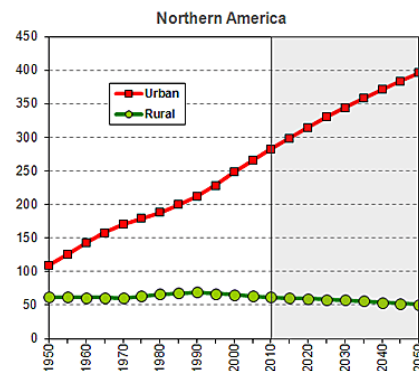
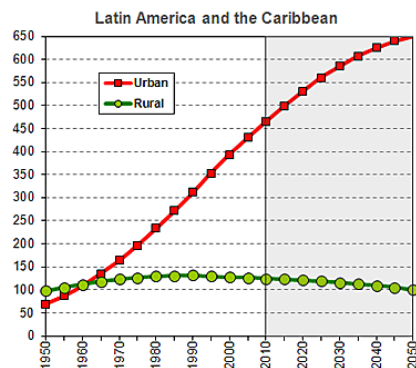
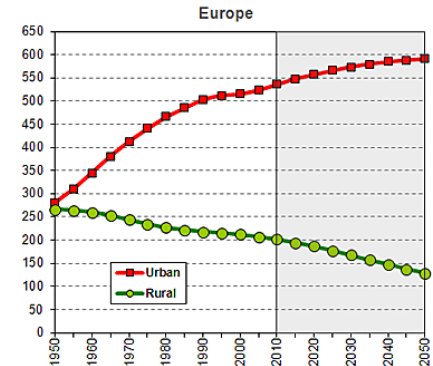
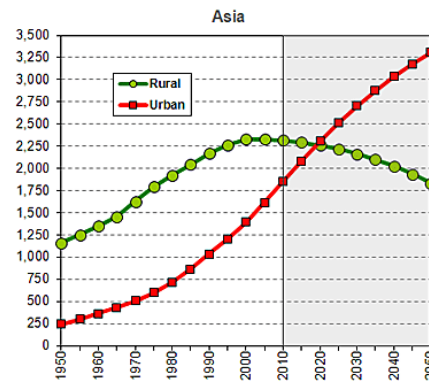
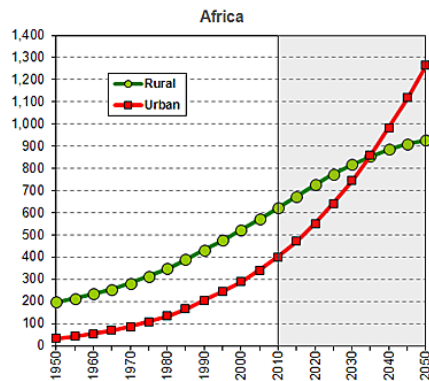
Percentage of PTWs in total motor vehicles by country  
Variation of the PTW presence in transport mix around the globe





# Urbanisation

More than 60% of the world's population will live in urban areas by 2050 while it was less than 30% in 1950.



Urban and rural population by major regions, 1950-2050 (million)

# Urbanisation

- In economically **developed regions**, cities continue to grow resulting in **more congestion and saturation of parking facilities**.

More attention is given to environmental pollution and emissions.

PTW use will grow due to:

- Ease of movement in crowded urban environments
- Small parking area needed
- Reduced environmental footprint
- Benefit of personal door-to-door solution



- In economically **developing regions**, cities will significantly grow.

Public transport is not always well organized (yet) and adequate.

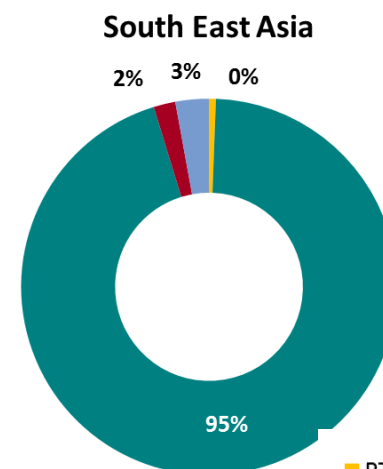
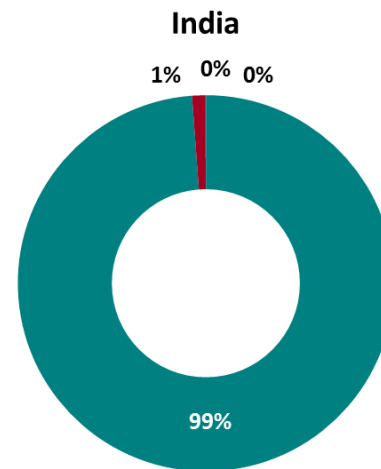
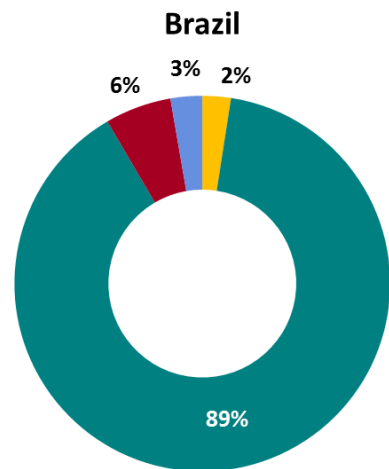
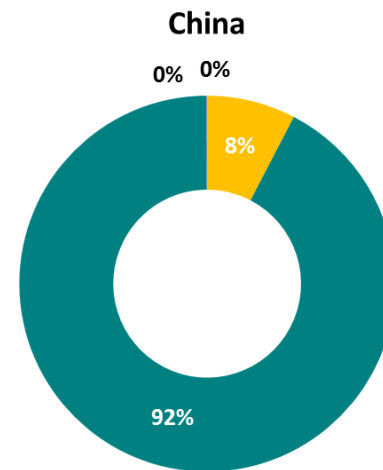
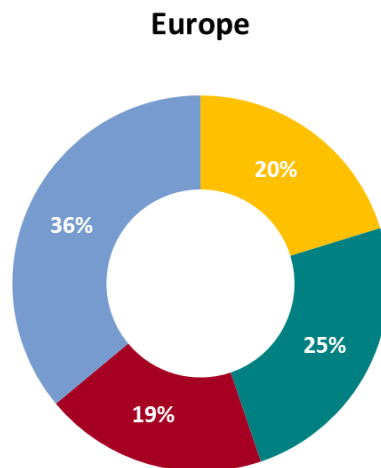
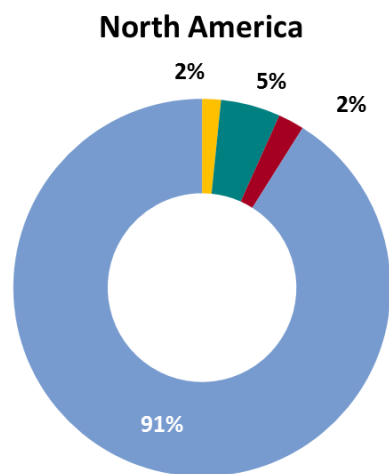
Personal average income is increasing and herewith also the **need for personal mobility solutions**.

PTW use will steeply grow due to:

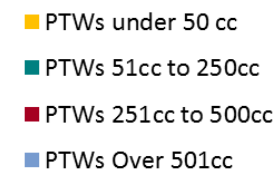
- Relative low purchase cost and low fuel consumption
- Often, PTWs are the only affordable means of motorized transportation for the household



# Great diversity within vehicle fleets



Source: IMMA (production 2013)



# Trends in road safety

|                | Comparison between 2011 and 2006        |   |                  |  |
|----------------|---|---|------------------|--|
| Region/Country | PTWs fatalities/<br>10'000 PTWs<br>2006 | PTWs fatalities/<br>10'000 PTWs<br>2011 | Evolution (in %) | Evolution of the<br>circulating park<br>during the same<br>period (in %) |
| Australia      | 5.16                                    | 2.93                                    | -43.2%           | 46.7%  |
| Europe*        | 2.02                                    | 1.50                                    | -25.7%           | 4.4%   |
| India          | 2.91                                    | 3.01                                    | 3.3%             | 57.3%  |
| Indonesia      | 3.38                                    | 3.17                                    | -6.3%            | 116.0%   |
| Japan          | 0.97                                    | 0.80                                    | -18.2%           | -5.7%  |
| Malaysia       | 4.95                                    | 3.72                                    | -24.9%           | 33.9%  |
| Philippines    | 3.14                                    | 1.77                                    | -43.7%           | 56.1%  |
| Thailand       | 5.35                                    | 3.84                                    | -28.3%           | 16.0%  |
| Taiwan         | 1.07                                    | 0.71                                    | -34.1%           | 11.9%  |
| USA & Canada   | 7.05                                    | 5.24                                    | -25.7%           | 27.3%  |

\* Europe includes Austria, Belgium, Czech Republic, France, Germany, Greece, Ireland, Italy, The Netherlands, Poland, Spain, Sweden, United Kingdom

- Significant improvement observed in terms of fatalities per 10.000 vehicles
- To adequately understand the PTW safety trends, local studies are required.
- Comparisons of trends should be based on adequate local understanding.

# 4-Stage Approach

- approach to improving road safety across the world:

1. **Public Policy**
2. **Infrastructure**
3. **Training & Education**
4. **Technology Advances**



# 4-Stage approach

## 1. Public Policy

- **Integrating a strategic motorcycling framework into transport planning** in order to achieve a better traffic system design, to ‘mainstream’ motorcycling as part of the overall transport policy.
- **Inclusive approach** would allow the proper development of measures which would improve safety, support riders and help realise the positive potential of PTWs for society as a whole.
- **Fair and equal access** between and within the transport modes.
- **Involve all stakeholders**



# 4-Stage approach

## 2. Infrastructure

- One of the **most important issues in developing territories**.
- PTW considerations in the infrastructure should be part of the **overall transport strategy** and included in **initial design**
- Identification of **black spots & treatment**
- **Adequate maintenance** of roads and infrastructure remain a priority for authorities, even in a context of economic difficulty
- Various **design manuals** and **audit processes** exist for creating adequate road infrastructures for PTWs
- Also consider PTW in addressing
  - **traffic technology**,
  - **land use** and
  - **parking**.



# Motorcycle exclusive/priority lane (Republic of China)

- **Separate the traffic flow between motorcycles and automobiles and increase traffic flow speed.**
- In most cases, motorcycle exclusive/priority lanes (MECs/MPLs) have been implemented together with motorcycle banned lanes limiting the presence of PTWs on MECs and MPLs only.



- Partners: Civil Work Ministry & Ministry of Transportation & Communication



# 4 Stage Approach

## 3. Awareness, Education and Training for all Road Users



- **Human error** is major cause in accidents
- **Behavioral change** should be at the forefront related to the human factor
- **Rider training and education** is fundamental to PTW safety.
  - Riders
  - Other road users
- **Initial rider training infrastructure**
- **Awareness of benefits** of use of protective equipment
  - **Proper use of helmets - integrated approach** (campaigns, proper helmets, proper use, effective enforcement)
- Preventing impaired riding
- Regular **Maintenance** of vehicles & servicing



# 4-stage strategy

## 4. Technology Advances

- IMMA member manufacturers are committed to the highest standards of construction and technology, taking into account specific aspects of different markets and invest in educating customers and promoting new safety solutions, in order to allow the market to adapt to new features and technologies.

Before **new technologies** are considered for mandatory application by government administrations, the application of the **latest international standards and regulations** (World Forum WP.29 e.g., 1958 Agreement) should be the **first step**.

Providing PTWs with additional **vehicle related options or technologies** – or introducing vehicle specific regulation - is not on its own sufficient without a **strong and** continued focus on **rider training, behaviour of the rider**, adequate **infrastructure** and, **inclusive policy** considering PTWs in traffic.



# **4 Stage Approach to Road Safety**

## **– 3 Basic Requirements**

### **1. Integrated approach involving diverse stakeholders**

Many safety improvements have been added to vehicles, and more future progress is expected in PTW safety technology. A broad spectrum of stakeholders must take part including drivers, riders, local administrations, governments, research institutes, national infrastructure planners, regional planners.

### **2. Collection of accurate, harmonized accident data**

To identify the causes and extents of PTW accidents, both accident data and accident on-site realities must be systematically investigated, and to realize this it is important to set practical goals. (Currently, it is difficult to compare accident situations among countries due to a lack of common data, especially data on PTW usages, travel distances, the number of accidents.

### **3. Approach fitting the regional conditions**

When accepted by society and riders, PTW safety strategies and campaigns become effective. For better social acceptance, it is necessary to introduce measures suited for the regional realities (e.g., no. of PTWs owned, business or leisure of commuting use, travel distance, climate).

# Protection of Intellectual Property Rights (IPR)

- Low cost, low quality, **counterfeit spare parts, misleading customers** rarely go through any safety tests or quality certification.
- Such modifications using such components pose **significant threats** to performance.
- Nearly **all markets in the world** are affected
- Most common in **aftermarket**:  
(filters, brake pads, clutches, electrical items, etc).
- Need for **enforcement** to prevent the marketing, distribution, sale and use of either non-compliant, or unsafe motorcycles and their parts or those in which intellectual property rights are infringed.
- Need to **improve rules and procedures**, capacity building of law enforcers, strengthen the monitoring of counterfeit sales, and warning to counterfeiting manufacturers and retailers.
- **Education and awareness strategies**



# Best practices (70+) resource for safer motorcycling

- **Safety and Transport Policy (11)** e.g.
  - Motorcycle Safety Strategy, (Sweden)
- **Infrastructure (12)** e.g.
  - Motorcycle exclusive priority lane (Republic of China)
  - Advanced stop lines (Barcelona, Spain)
- **Training, Education (19) and awareness (17)** e.g.
  - Pre-licensing education (Indonesia)
- **Data & Analysis (3)** e.g.
  - MAIDS project (Europe)





# Thailand: 'Road Safety Sticker', video clip contest, 100% helmet wearing campaigns ...



- ☑ 20,000 stickers produced
- ☑ Distributed to all dealers nationwide & users
- ☑ Since February 2014
- ☑ Nationwide 100%  
Helmet wearing campaigns





# The philippines: Train the trainers ...

Memorandum of Understanding ("MOU") with partner-schools nationwide.

**Beneficiaries:** Children aged 9 – 12 years; Teachers as Trainers

- ❑ Launched on 27 August 2014 at San Beda College Alabang among Grade 3 Students as initial beneficiaries



# Indonesia

## create 'road safety school models'

- Collaboration with Local Education Dept. and Traffic Police to develop 20 schools in the Yogyakarta province into **“Road Safety school models”**.
  - Road Safety Campaign to parents
  - Build a traffic park for students
  - Conduct "Road safety" game periodically

“Mater Dei” kindergarten.



## **World Forum WP.29 – Revision of the 1958 Agreement**

- Regulations are performance oriented wherever appropriate and not design-restrictive, applied by large number of countries (Contracting Parties)
- The Revision will ensure that the 1958 Agreement remains the key international framework for the harmonisation of technical regulations (protection of the environment, vehicle safety, energy saving and performance of anti-theft) in the automotive sector.
  - Goal to make it more attractive for also Low and Medium Income Countries.
  - The updated Agreement will introduce a step by step harmonisation approach of adopting UN Regulations
  - The updated 1958 Agreement will offer direction and target for introducing and updating regulations in developing countries.
  - Contracting Parties applying a UN regulation under the 1958 Agreement may also issue type approvals to earlier version of the UN Regulation (i.e. preceding amendments or the the un-amended UN Regulation).

# Conclusion

- A significant **improvement of PTW safety/10.000 reg. vehicles** is observed but the relative weight of PTWs in overall safety increases.
- A **strategic approach** should consider the **most effective combination** of measures according to the specific needs of individual jurisdictions and use in urban areas.
- **Integrated approach: A toolbox of measures is available** with examples and best practices.
- **Education and awareness strategies** require attention, to develop enforcement initiatives in **fighting counterfeit products**.
- Harmonisation of vehicle regulations: The **Revision of the 1958 Agreement** under WP.29 will provide unprecedented opportunities for low and medium income countries.

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