



# 21st Transport Sector Coordinating Committee Meeting

22–23 April 2024 • Almaty, Kazakhstan

# 21-е заседание Координационного комитета по транспортному сектору

22–23 апреля 2024 года • Алматы, Казахстан



**THE FUTURE OF ROAD USER CHARGING IN DEVELOPING ASIA AND THE PACIFIC**

# **Road Maintenance Financing and Cost Recovery Options**

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ADB

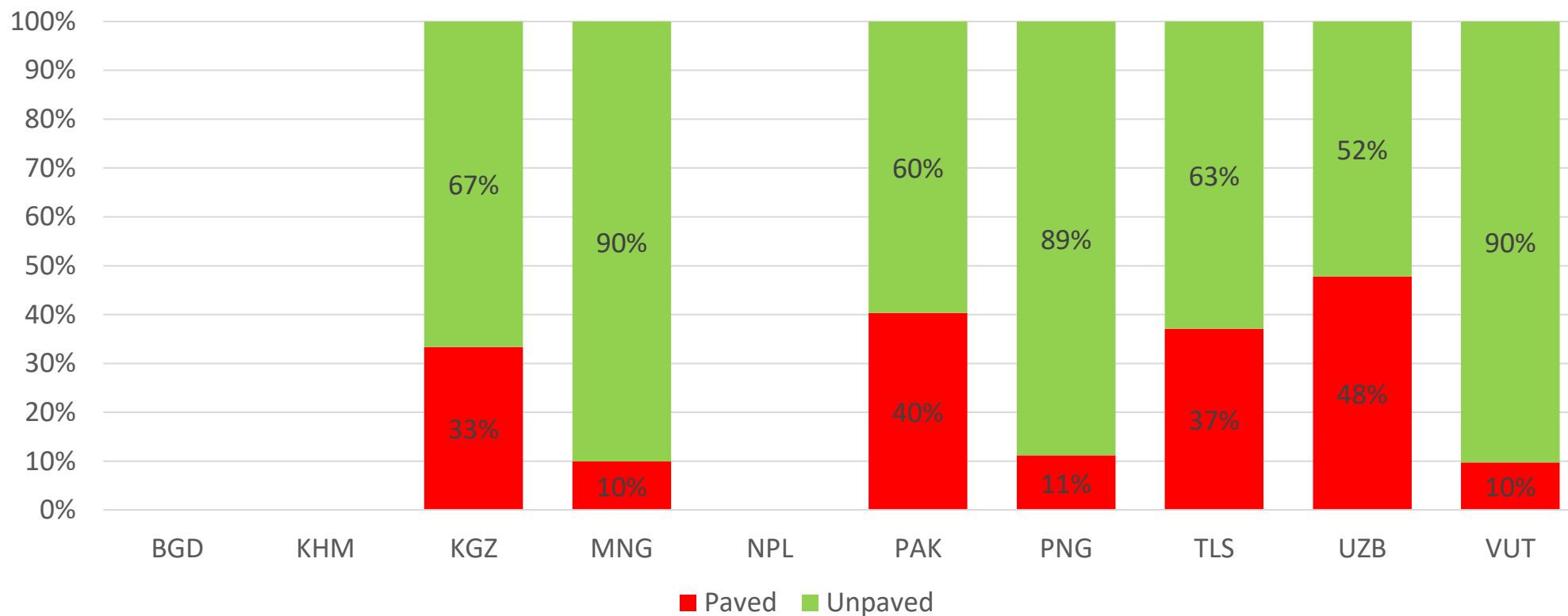


# The Future of Road User Charging

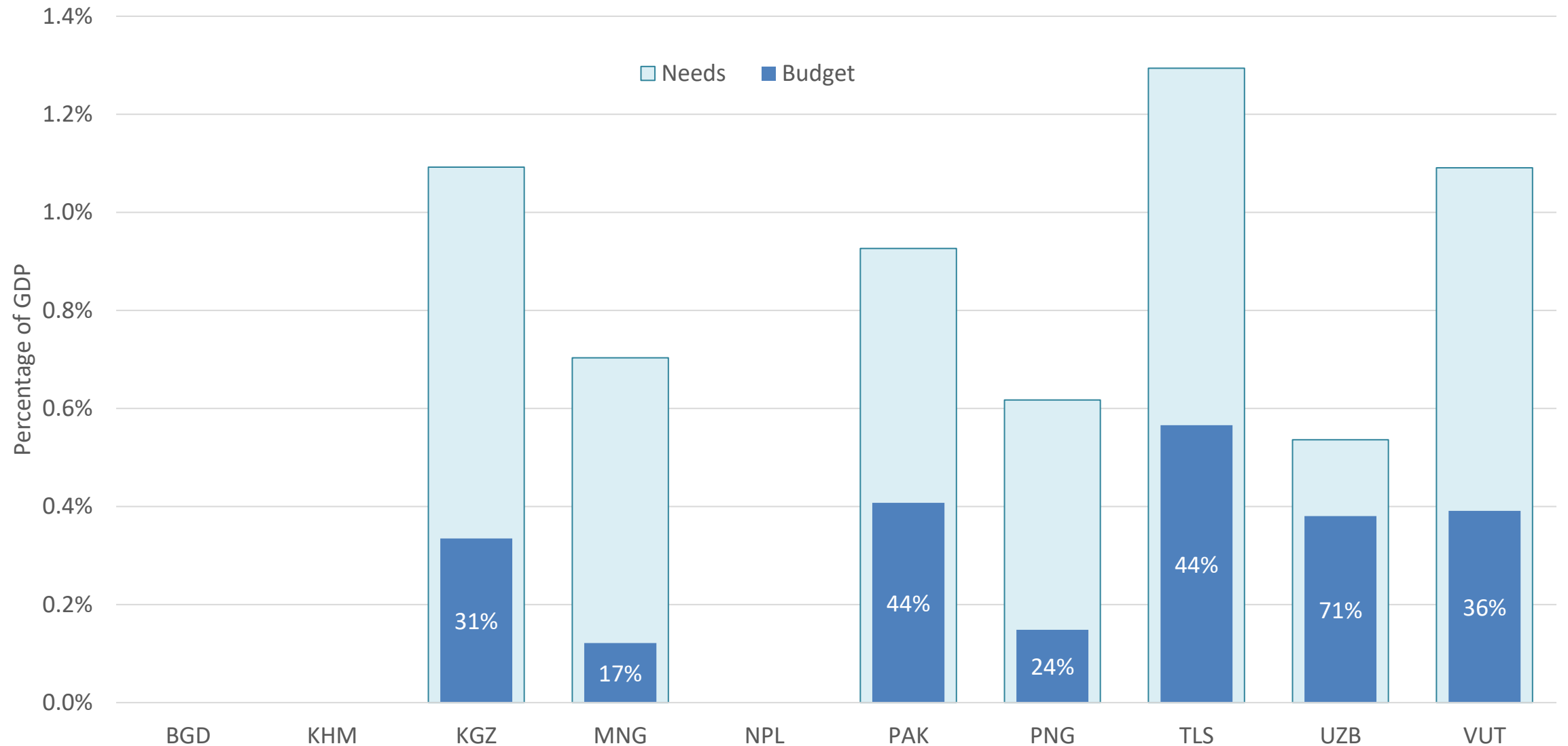
- Publication 1: Road Maintenance Financing and Cost Recovery Options in Asia and the Pacific
  - Identify road network characteristics and estimate road maintenance needs
  - Identify existing road user charges and estimate revenues
  - Determine the revenues susceptible to introduction of low-carbon vehicles
- First of three studies related to the impact of low-carbon vehicles on road user charge revenues
  - Study being carried out by Dornier
  - Total of 10 countries in Asia and the Pacific
  - Including 4 CAREC countries: Kyrgyz Republic, Mongolia, Pakistan and Uzbekistan

# Road networks

Surface type	BGD	KHM	KGZ	MNG	NPL	PAK	PNG	TLS	UZB	VUT
<b>Paved</b>			8,355	11,220		201,855	3,320	2,784	87,122	198
<b>Unpaved</b>			10,587	101,833		298,895	26,418	4,721	95,071	1,838
<b>Total</b>	-	-	<b>34,132</b>	<b>113,053</b>	-	<b>500,750</b>	<b>29,738</b>	<b>7,505</b>	<b>182,000</b>	<b>2,037</b>
<b>Road density (km/100km<sup>2</sup>)</b>			17.8	7.3		65.0	6.6	50.4	41.3	16.7

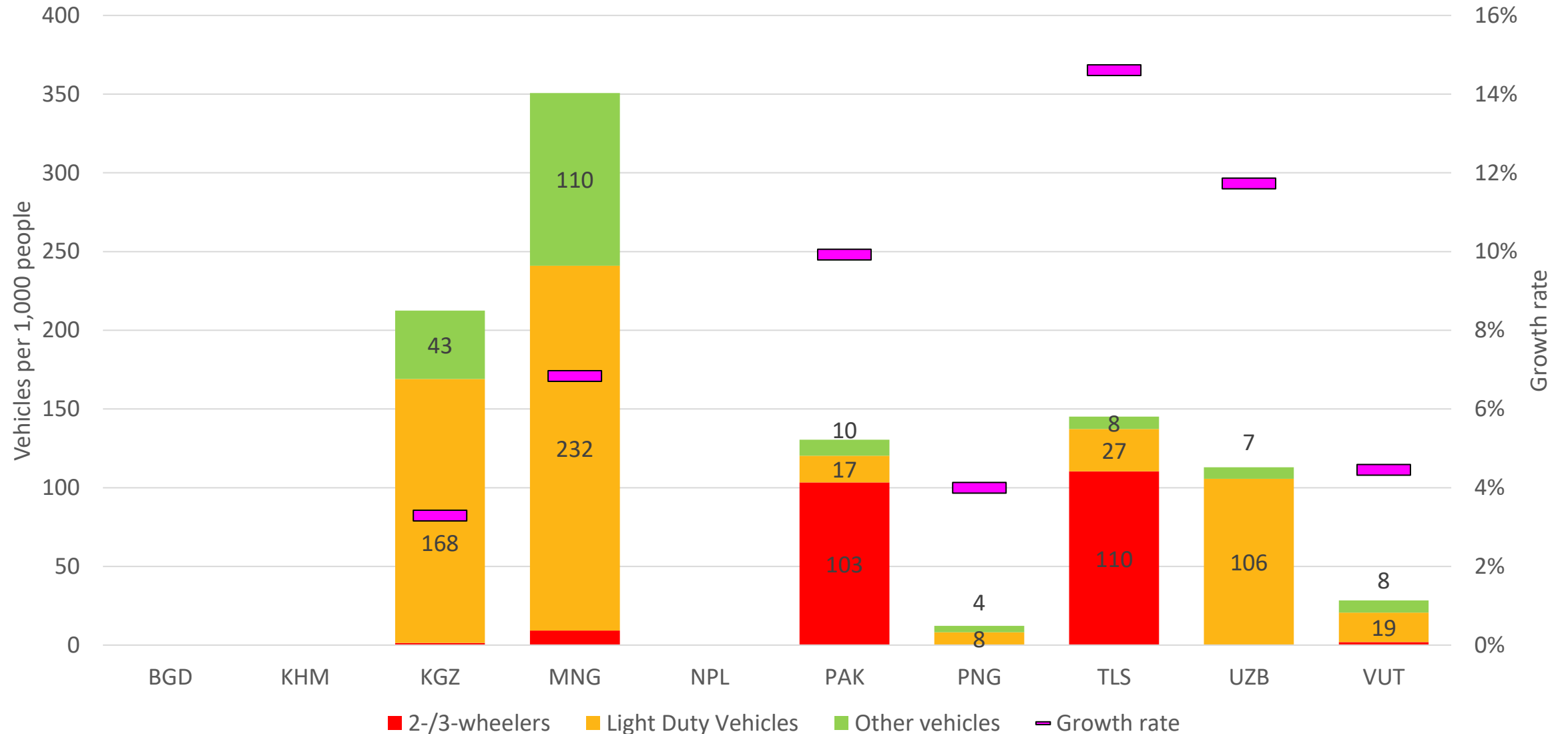


# Maintenance needs and expenditures



BGD: Bangladesh, KGZ: Kyrgyz Republic, KHM: Cambodia, MNG: Mongolia, NPL: Nepal, PAK: Pakistan, PNG: Papua New Guinea, TLS: Timor Leste, UZB: Uzbekistan, VUT: Vanuatu

# Vehicle fleets

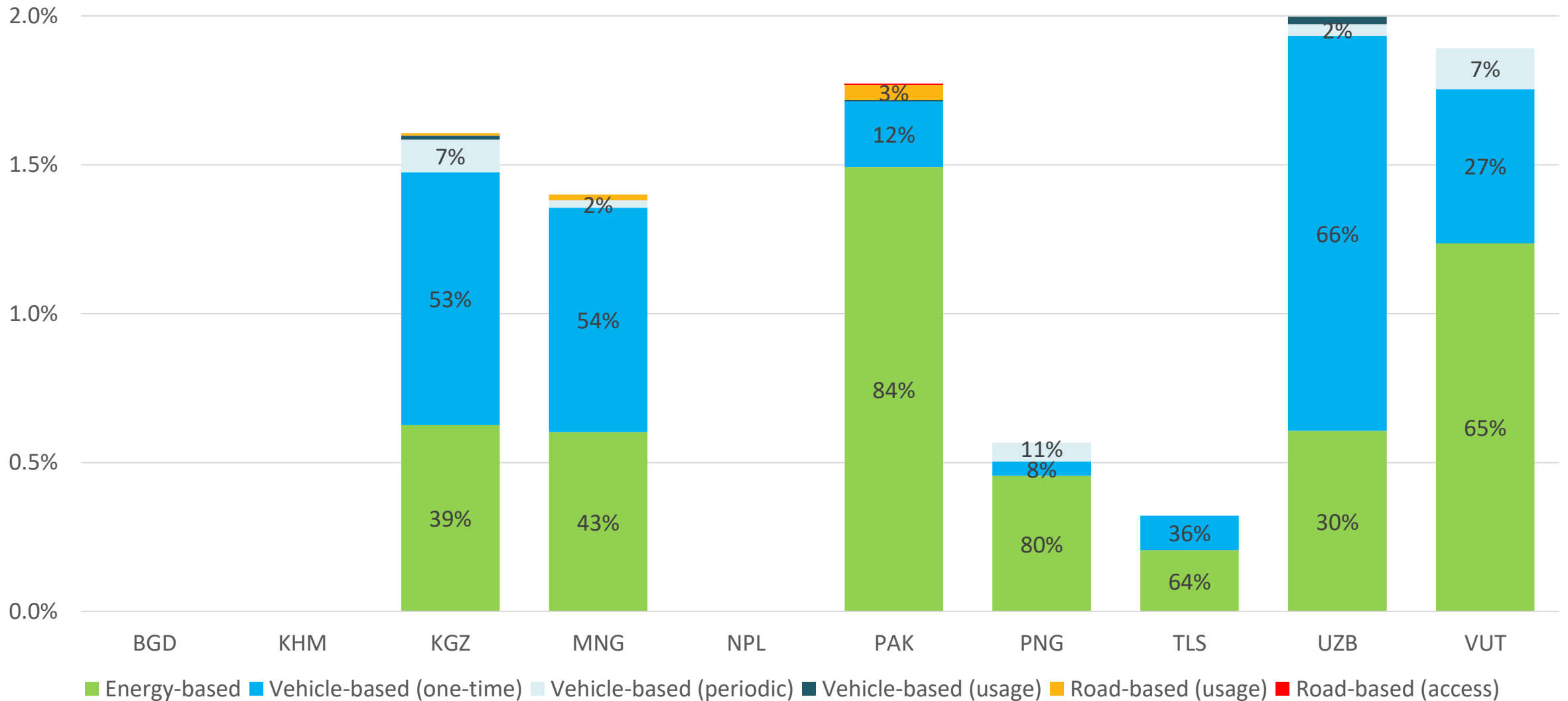


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# Road user charges

Type of charge	Access charges	Usage charges
<b>Energy-based charges</b>		<ul style="list-style-type: none"> <li>• Fuel tax / levy</li> <li>• Electricity tax / levy</li> <li>• Excise tax on fuel</li> <li>• Sales tax on fuel/electricity</li> <li>• Customs duty on fuel</li> </ul>
<b>Vehicle-based charges</b>	<ul style="list-style-type: none"> <li>• Customs duty on vehicles</li> <li>• Excise tax on vehicles</li> <li>• Sales tax on vehicles</li> <li>• Ownership registration fee / tax</li> <li>• Annual registration fee</li> <li>• Annual vehicle tax / road tax</li> <li>• Vehicle technical inspection fee</li> <li>• Heavy vehicle fee</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle distance charging</li> </ul>
<b>Road-based charges</b>	<ul style="list-style-type: none"> <li>• Vignette</li> </ul>	<ul style="list-style-type: none"> <li>• Tolling</li> <li>• Traffic fines</li> <li>• Overweight/oversized permit fees</li> <li>• Foreign vehicle transit fees</li> <li>• Right-of-way usage fees</li> </ul>

# Road User Charge Revenues

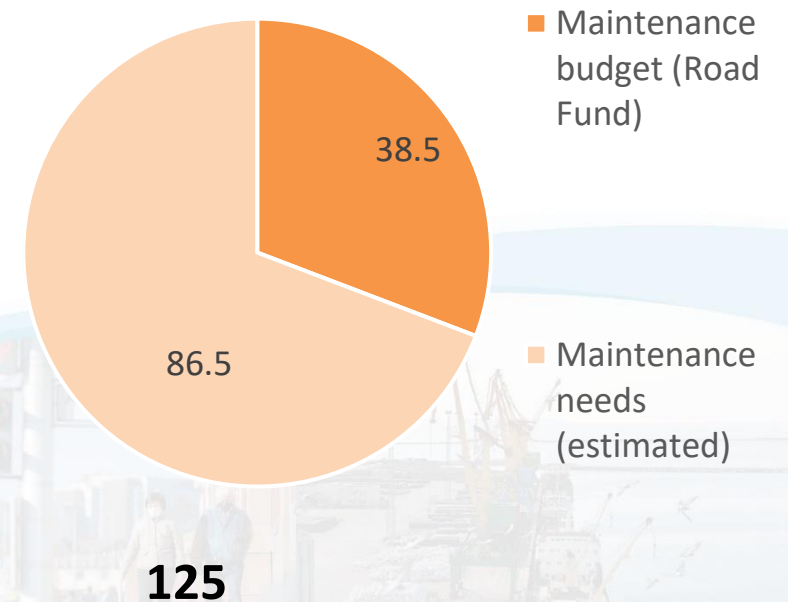
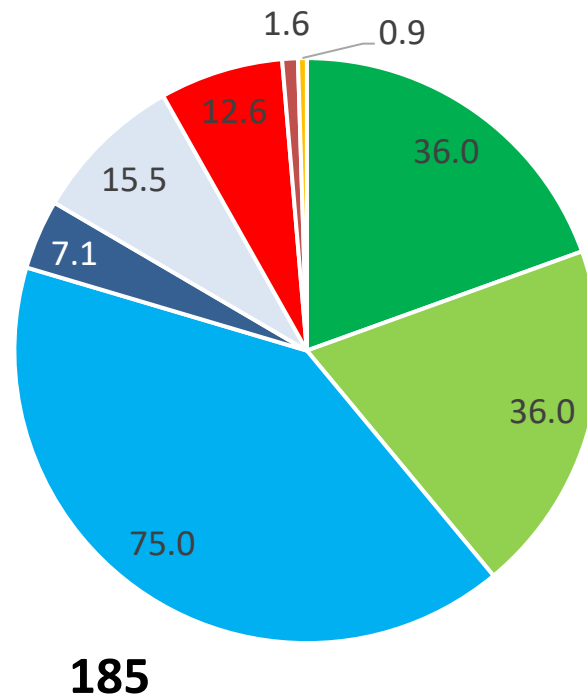
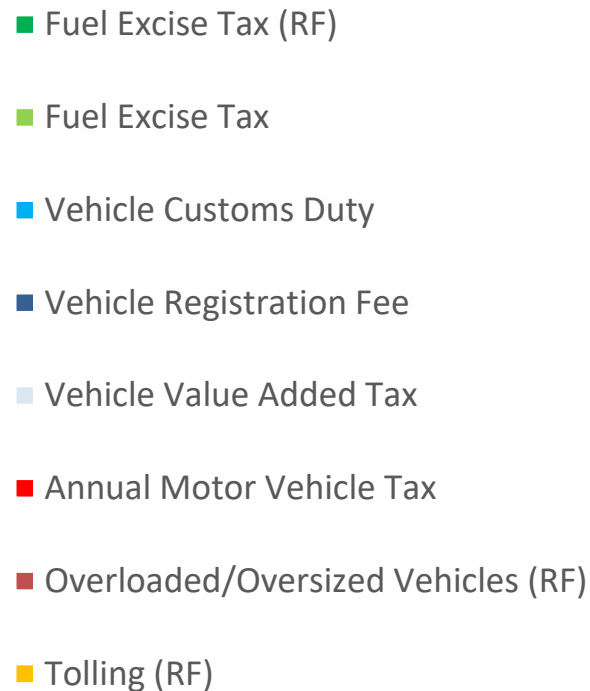


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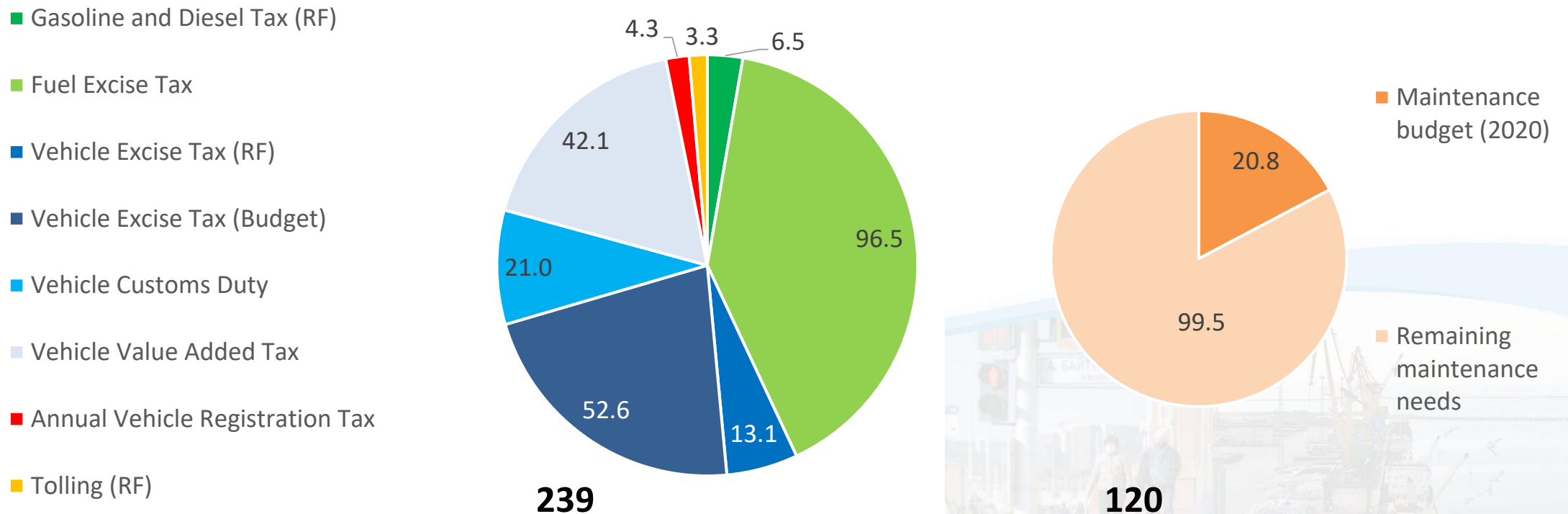
# Kyrgyz Republic

- One-third of estimated needs currently financed
- RUC revenues are 1.5 times the estimated maintenance needs
- High dependence on vehicle-based revenues, but also fuel-based revenues
- Some revenues earmarked to Road Fund (RF), mainly fuel-based revenues



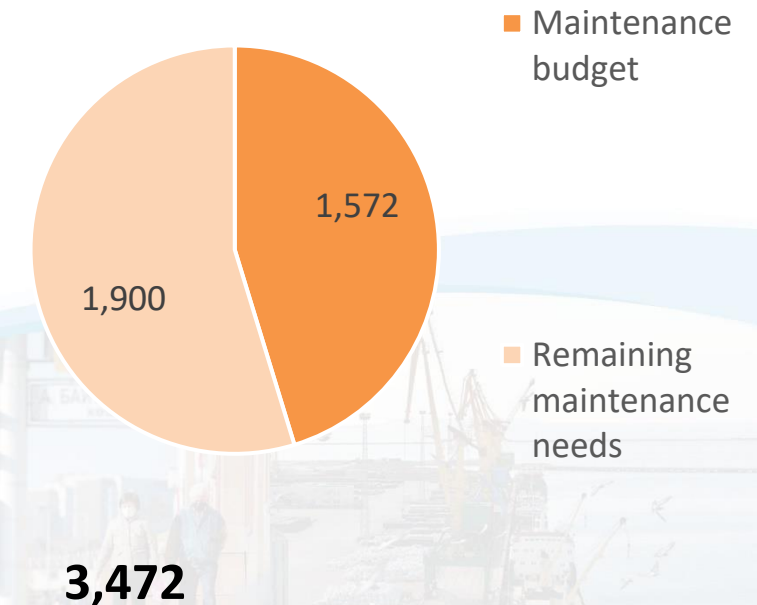
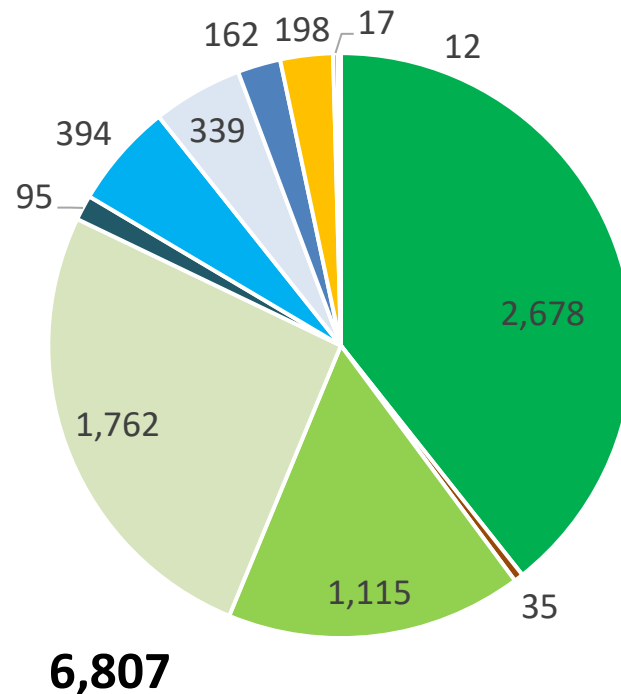
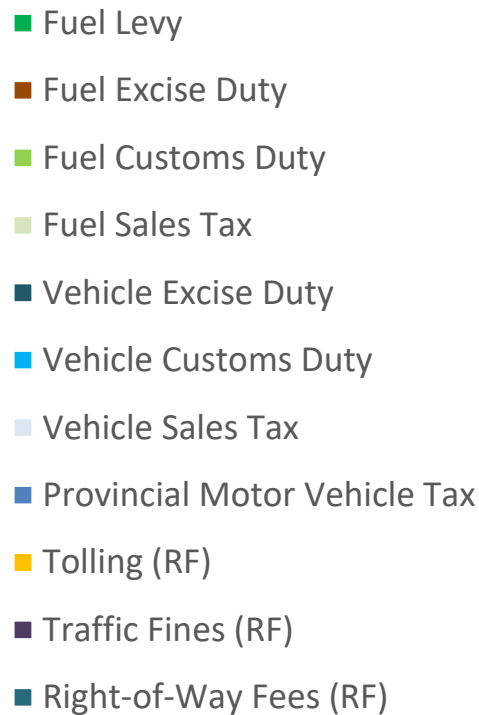
# Mongolia

- Less than one-quarter of estimated needs currently financed
- RUC revenues are 2 times the estimated maintenance needs
- Dependence on mix of fuel- and vehicle-based revenues
- Some smaller revenues earmarked to Road Fund (RF), partially fuel-based revenues



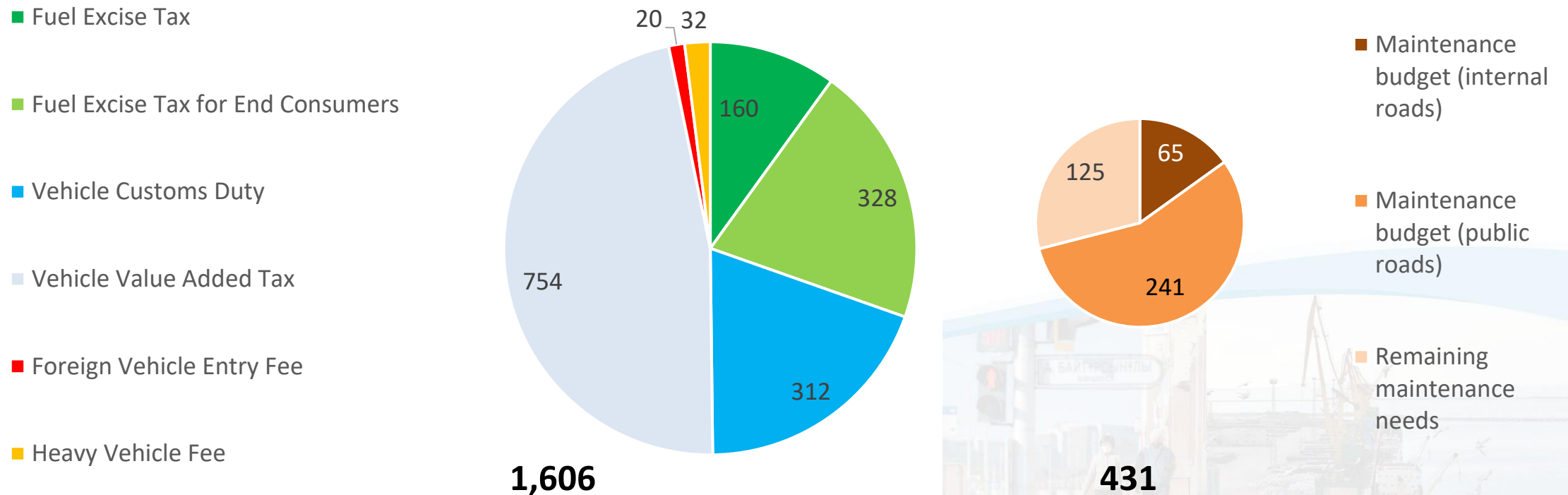
# Pakistan

- Currently covering nearly half the estimated needs
- RUC revenues are 2 times the estimated maintenance needs
- Very high dependence on fuel-based revenues
- Some smaller revenues earmarked to Road Fund (RF), no fuel-based revenues



# Uzbekistan

- Two-thirds of estimated needs currently financed
- RUC revenues are four times the estimated maintenance needs
- Very high dependence on vehicle-based revenues
- Revenues no longer earmarked to Road Fund (RF)



# Next steps

- Publication 2: Technology Options for Road User Charging Systems
  - Identify suitable alternatives for fossil fuel-based road user charges
  - Aimed at sustaining or even improving road user charge revenues
- Publication 3: Mapping the Future of Road User Charging in Developing Asia and the Pacific
  - Model the expected transition towards low-carbon vehicles by country and the the impact on road user charge revenues
  - Propose alternative road user charge revenue options by country
  - Recommend strategy and timeframe for transitioning to new road user charges
- Publications planned for Q4 2024