



**PRESENTATION  
ON  
MEASUREMENT OF INLAND TRANSPORT  
CO<sub>2</sub> EMISSION AND MITIGATION  
POLICIES**

**PRESENTED BY:  
DORJI WANGDI,  
EXECUTIVE ENGINEER,  
DEPARTMENT OF ROADS, BHUTAN.**

# Bhutan Map



# 1.0 Background

- Bhutan is a small country with a population of 695,822 covering an area of 38,394 km<sup>2</sup>.
- Landlocked country located in the eastern Himalayas between China to the north and India to the south.
- The landscape is mountainous and rugged consist of main river valleys and steep mountains with altitude ranging from about 2000 to 4000 m.
- Great Himalayas in the north along the Tibetan border encompass snow-capped peaks and alpine meadows above 4000 m and extremely challenging for development.
- The landscape is dominated by high forest (70.46%) along with steep slopes with very little land available for agriculture (2.93%).

## Contd.

- Climate is highly influenced by Monsoon with 70% of precipitation falling during summer (June – September).
- Combination of geography, climate and high forest cover has resulted in extremely high biodiversity and home to many species that are globally endangered.
- Bhutan has 677 glaciers and 2674 glacial lakes.
- Hydropower is the major source of government's revenue and contributes 19% of GDP mainly through exports to India.
- Agriculture is a significant contributor to GDP in Bhutan accounting for more than 18.5% of GDP in 2008 and with 69% of the population dependent on this sector.



## 2.0 Ambient Air Quality in Bhutan

- Air quality in Bhutan has long been regarded as pristine.
- The recent rapid development is placing pressure on air quality in the major urban cities like Thimphu and Phuentsholing and at several industrial estates with relatively heavy industries.



## 3.0 Emission

The primary source of air pollution in Bhutan are:

- Exhaust emissions from diesel and petrol vehicles
- Particulate matter from brake and tire wear and suspended road dust
- Industry emission
- Smoke from wood stove, cooking and space heating
- Wind-blown dust from building construction sites, bare agricultural soil and road construction areas
- Smoke from forest fires and agricultural burning
- Smoke from open fires at construction sites and outdoor recreation
- Smoke from roadside wood-fired heating of bitumen in open pans for road paving including on city streets



Emission



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_5740](https://www.yunbaogao.cn/report/index/report?reportId=5_5740)

