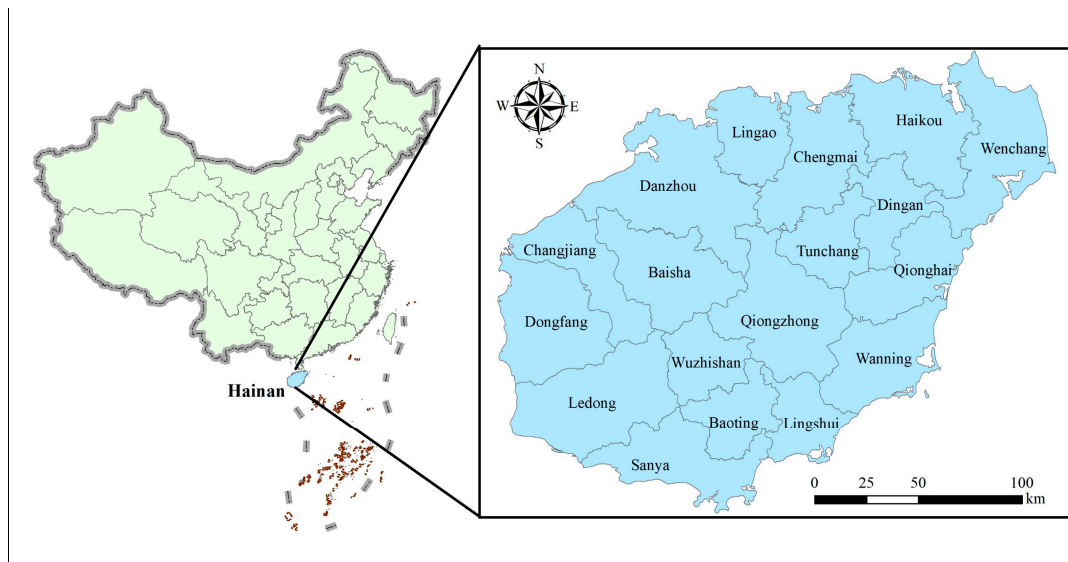
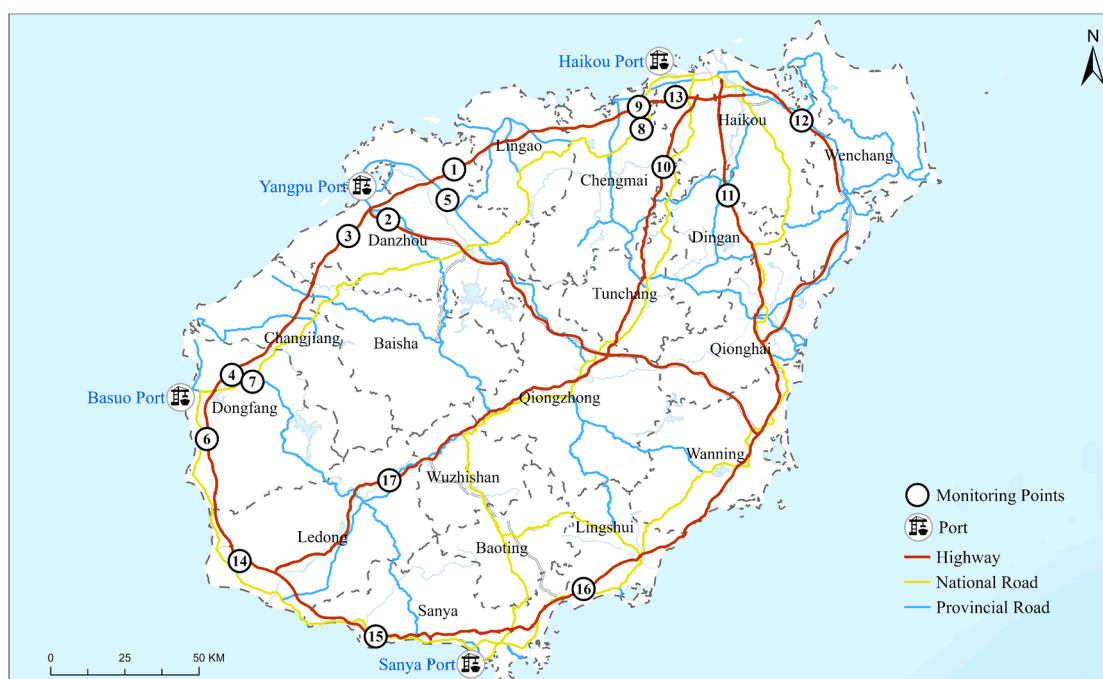


## Supplementary Materials:

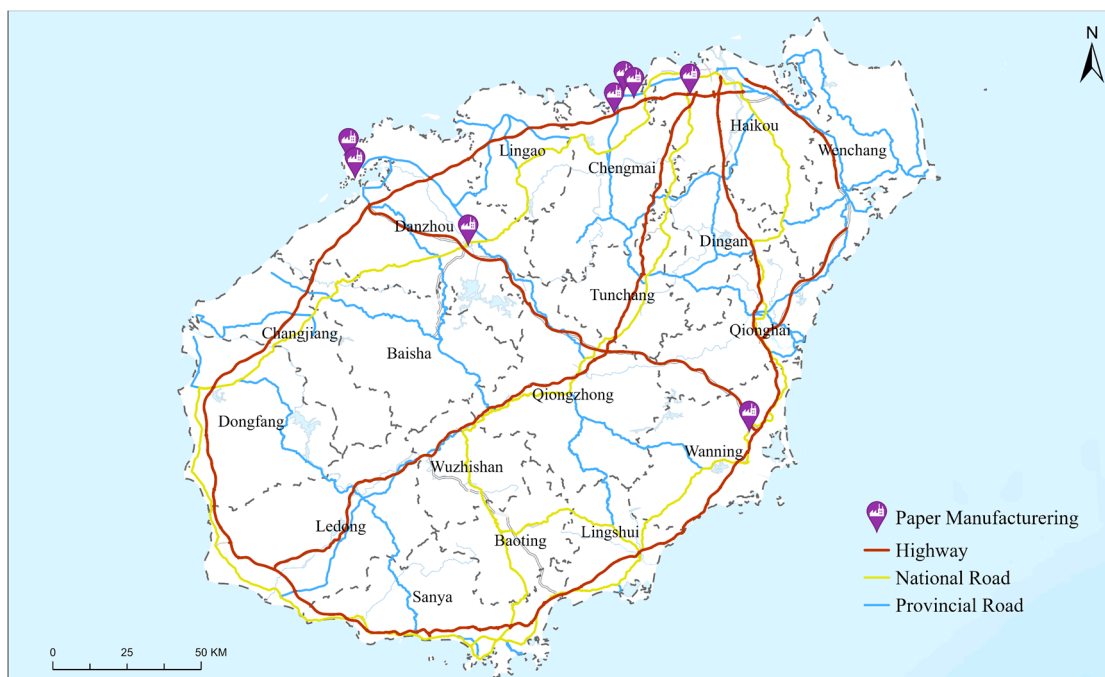
Chunxiao Hao <sup>1,2</sup>, Yunshan Ge <sup>2</sup>, Jindong Liang <sup>3</sup>, Zhuoshi He <sup>2</sup>, Zhihui Huang <sup>2</sup> and Guangyu Dou <sup>2,\*</sup>



**Figure S1.** Hainan Island map.



**Figure S2.** Hainan Island truck traffic flow monitoring points.



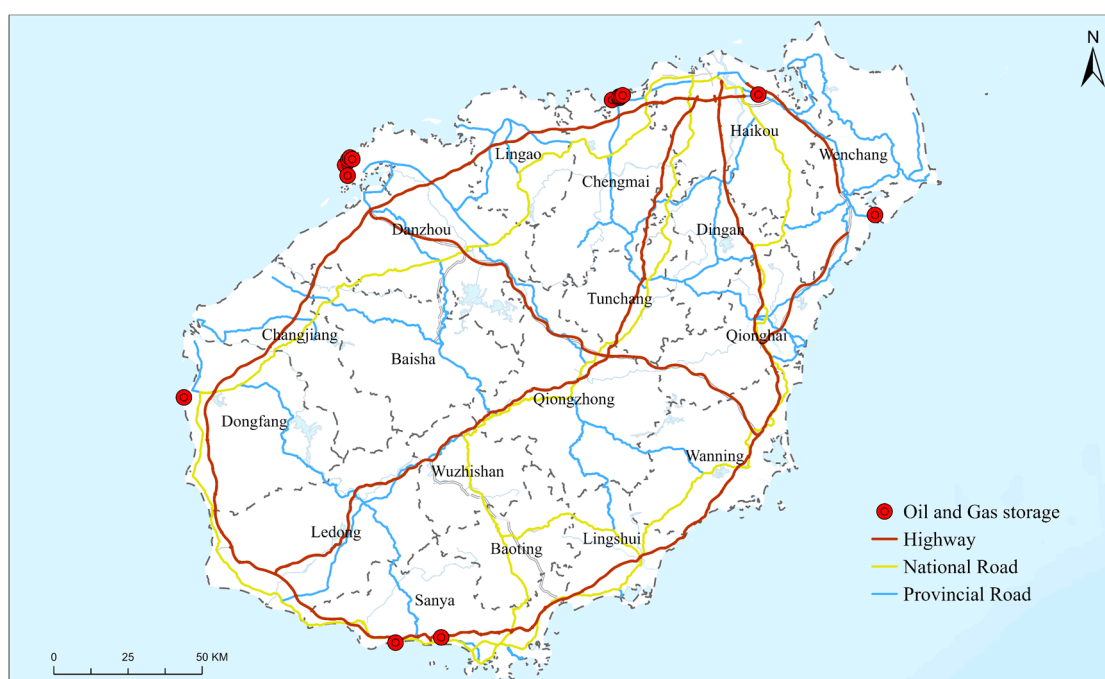
(a)



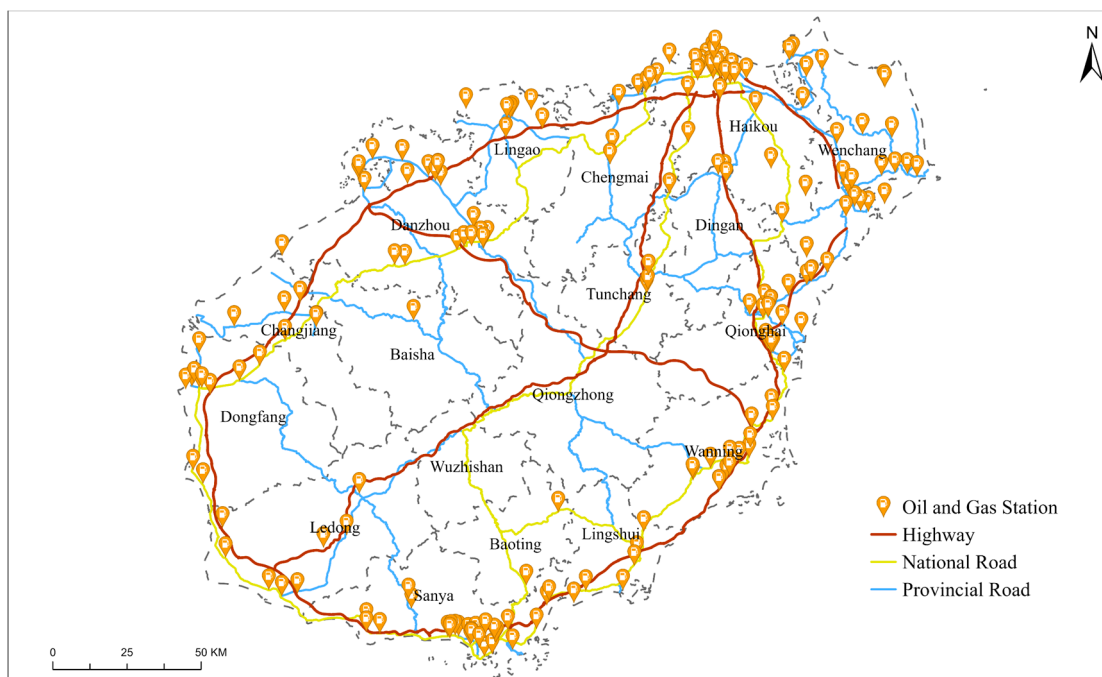
(b)



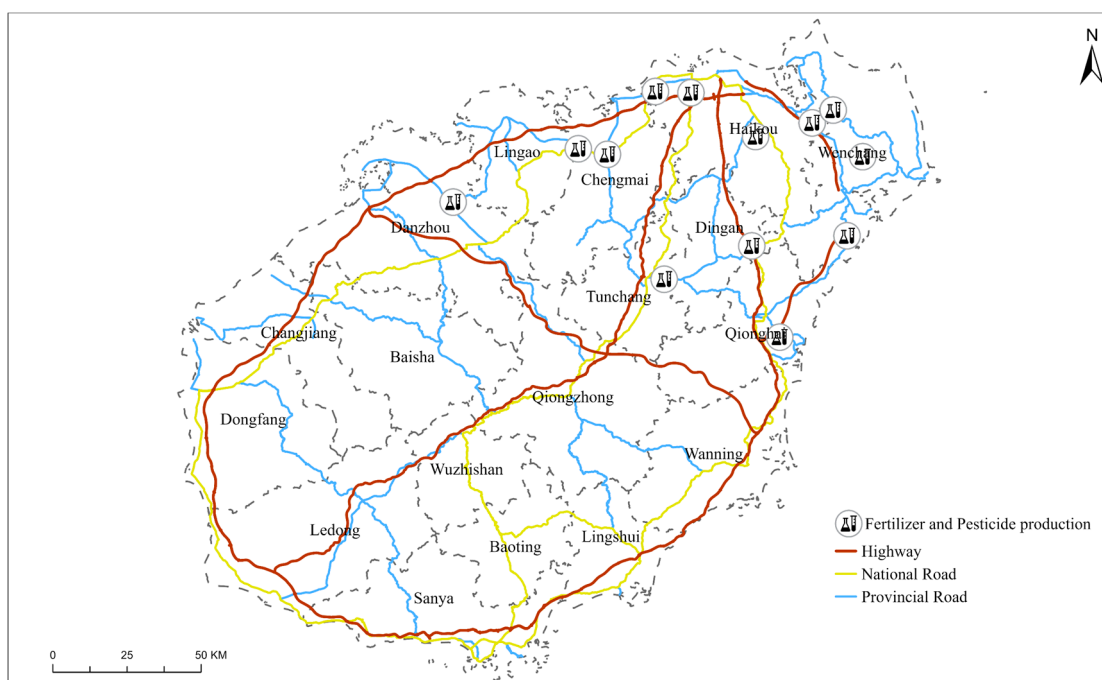
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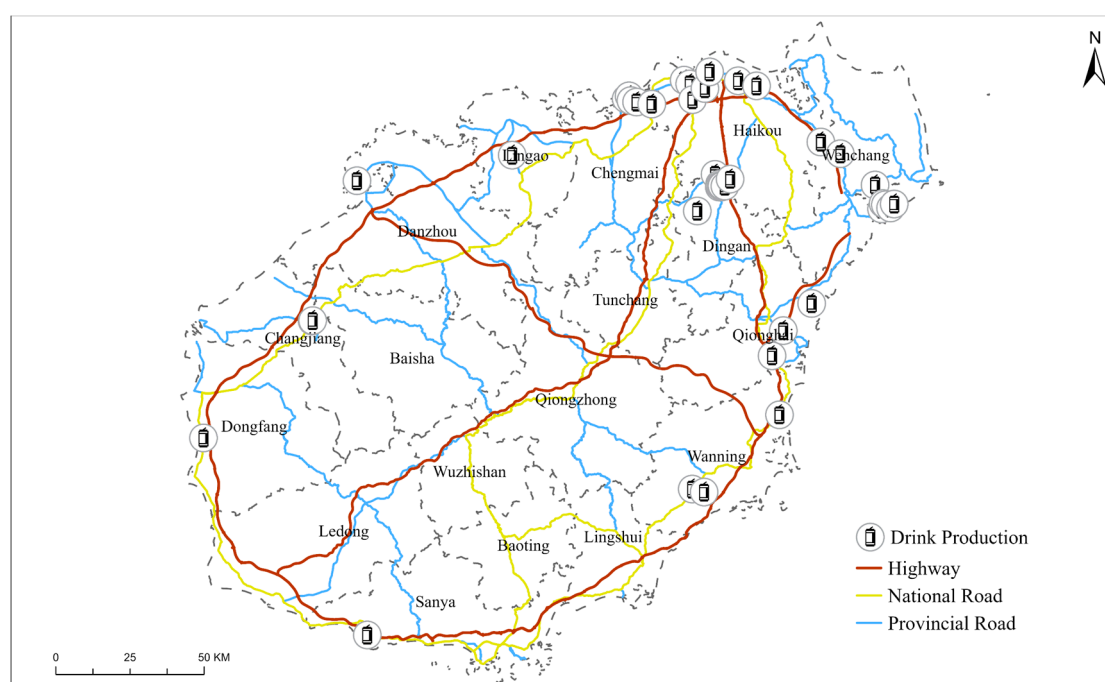
(d)



(e)



(f)



(g).

**Figure S3.** Layout of the main industrial enterprises in Hainan Island ((a): Paper and paper products manufacturing enterprises; (b): Crude oil processing and chemical raw material manufacturing enterprises; (c): Iron ore mining and steel rolling processing enterprises; (d): Oil and gas storage enterprises; (e): Oil and gas retail enterprises; (f): Fertilizer and pesticide production enterprises; (g): Beverage production enterprises).

**Table S1.** Main freight transportation status in Hainan Island.

Category	Transportation Volume (10,000 tons)	Average Transportation Distance (km)	Cargo Turnover (10,000 ton-km)
Concrete	2661	15	39,915
Cement	2313	70	161,885
Agricultural and sideline products	1558	70	109,069
Raw ore of iron ore	314	60	18,814
Feed	272	30	8166
Machine-made paper	200	100	20,000
Grain	480	70	33,613
Methanol	135	10	1355
Synthetic ammonia	77	10	771
Fertilizer and pesticide	61	100	6100
Soft drinks	61	70	4270
Primary form plastics	31	30	918
Coal	1279	50	63,950
Steel	406	50	20,298
Mining materials	634	70	44,371
Non-metallic ores	288	70	20,182

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Machinery and electrical equipment	409	70	28,608
Light industry and pharmaceutical products	270	70	18,870
Chemical raw materials and products	573	70	40,117
Oil materials	357	100	35,700

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