Dealing with Petcoke

What is the issue?

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- With restrictions on sulfur consumptions, petcoke is getting to be a favourable alternative.
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- India has to react appropriately to this in the context of the environmental implications involved.
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What is the recent challenge?

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- Sulfur is a common impurity in crude that can cause respiratory problems and acid rain when it’s burned.
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- The global shipping industry has started implementing regulations to limit its sulfur consumption.
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- This will make the bunker fuel used in ships cleaner than the crude oil produced worldwide.
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- Traditionally, it has been the cheapest, dirtiest fraction from refining.
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- The rules on sulfur content will come into force at the start of 2020.
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- The oil market and refiners would thus have to find another way to dispose of their by-products.
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- One popular way of disposing this of late has been to sell it to India as a cheap petcoke.
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How is petcoke an alternative?

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- Petroleum coke or petcoke is a spongy, solid residue from oil distillation.
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- It is a coal substitute and can be burned for fuel in the same manner as coal.
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- It notably has a higher energy content.
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- Petcoke has become an attractive raw material for power stations and cement plants in India.
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- The loophole in India’s environmental taxes has facilitated this.
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- Plain old coal attracts a clean-energy levy that has risen to Rs.400 a metric ton since it was introduced in 2010.
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- On the other hand, petcoke has been exempt from this levy.
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- Indian price for coal of comparable heating values in the region is Rs. 4,000 a ton.
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- Given this and the high tax, petcoke has been a favourable alternative.
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- Similar levy issues have favoured petcoke over natural gas as well.
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How has petcoke use been?

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- Petcoke was the fastest-growing fraction of oil demand in India.
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- Its consumption is the second-biggest share of India’s petroleum consumption after diesel.
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- It has outstripped even LPG and gasoline.
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- While petcoke is richer in energy than coal, it can have 20 times as much sulfur too.
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- The choking smogs have made India’s cities the world’s most polluted in recent years.
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What are the measures?

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- The Supreme Court last year banned the use of petcoke in New Delhi and adjacent states.
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- It however allowed a reprieve for the cement companies that consume about half of it.
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- Cement plants currently escape the court ban on the grounds that all their sulfur is removed in the production process.
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- Government is planning a nationwide ban on using petcoke as fuel.
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- Also, there are, reportedly, measures to halt imports.
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- This is because petcoke produced overseas now accounts for about 40% of supply.
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- Much of it is from U.S. refineries processing heavy Canadian and Latin American crude.
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What is the way forward?

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- The cement plants may not continue to be exempt in the future.
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- But besides this, the government should change its clean-energy taxes.
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- It must be ensured that the levy on petcoke is equal to that on coal.
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- Nevertheless, it would become unfavourable for the global refining industry.
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- But refineries can remove the sulfur altogether and turn it into sulfuric acid.
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- This latter is a prized raw material for the fertilizer industry and chemicals manufacturing.
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- This can even be fed back into refineries to produce ingredients for high-

octane gasoline.
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- The challenge of building sulfur plants which is costly has also to be reckoned with.
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Source: Indian Express

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