JUDICIAL APPROACHES TO THE ISSUE OF AIR POLLUTION IN SOUTH ASIAN CITIES

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OVERVIEW OF THE PROBLEM

• As a region, South Asia’s cities have some of the worst air in the world.

• With rapid development and increasing urban populations, South Asia’s cities have struggled to keep the air clean.

• 12 megacities exist in the region with most growing in population size and density.
Pollution Guidelines

- A common method of measuring air pollution is through particulate matter.
- PM$_{10}$: coarse particles such as dirt and dust
- PM$_{2.5}$: fine particles such as toxic organic compounds and heavy metals.
- WHO Guidelines:
  - PM$_{10}$: 20 µg/m$^3$ annual mean.
  - PM$_{2.5}$: 10 µg/m$^3$ annual mean.
Pollution in Cities

- Pakistan
  - ~22,000 adult deaths due to urban air pollution (World Bank).
- Lahore
  - $\text{PM}_{10}$: ~200 $\mu$g/m$^3$ annual mean.
  - $\text{PM}_{2.5}$: ~70 $\mu$g/m$^3$ annual mean.
- Karachi:
  - $\text{PM}_{10}$: ~270 $\mu$g/m$^3$ annual mean.
  - $\text{PM}_{2.5}$: ~120 $\mu$g/m$^3$ annual mean.

- Sri Lanka
  - Slight decreasing trend for particulate matter from 1998-2012.
  - Colombo City
    - $\text{PM}_{10}$: ~65 $\mu$g/m$^3$ annual mean.
    - $\text{PM}_{2.5}$: ~30 $\mu$g/m$^3$ annual mean.
• Bangladesh
  • Ranked as 4\textsuperscript{th} worst among 91 countries for air quality (WHO).
  • Dhaka:
    • PM\textsubscript{10}: $\sim$180 $\mu$g/m\textsuperscript{3} annual mean.
    • PM\textsubscript{2.5}: $\sim$90 $\mu$g/m\textsuperscript{3} annual mean.

• Nepal
  • Air quality ranks 177 of 178 countries (Environmental Performance Index).
  • PM\textsubscript{10} in Kathmandu rises to 500 $\mu$g/m\textsuperscript{3} during traffic spikes.
  • Kathmandu
    • PM\textsubscript{10}: $\sim$114 $\mu$g/m\textsuperscript{3} annual mean.
    • PM\textsubscript{2.5}: $\sim$50 $\mu$g/m\textsuperscript{3} annual mean.
India

- 13 of the 20 most polluted cities in the world (WHO).
- Outdoor air pollution was the 5\textsuperscript{th} largest cause of death (620,000 people).

Bombay

- \( \text{PM}_{10} \): \( \sim 140 \, \mu g/m^3 \) annual mean.
- \( \text{PM}_{2.5} \): \( \sim 45 \, \mu g/m^3 \) annual mean.

Calcutta

- \( \text{PM}_{10} \): \( \sim 100 \, \mu g/m^3 \) annual mean.
- \( \text{PM}_{2.5} \): \( \sim 50 \, \mu g/m^3 \) annual mean.

Delhi

- \( \text{PM}_{10} \): \( \sim 280 \, \mu g/m^3 \) annual mean.
- \( \text{PM}_{2.5} \): \( \sim 150 \, \mu g/m^3 \) annual mean.
# Primary Sources of Air Pollution

- **Vehicle Emissions**
  - Two-stroke Three Wheelers.
  - Accounts for up to 60% of particular matter in cities.

- **Stationary sources**
  - Accounts for ~30% of air pollution in cities.
  - Escapes regulation due to lack of registration with authorities.
II. Securing the Right to a Clean Environment

- Expansion of Environmental Public Interest Litigation in the Mid 1990’s.
  - Writ petitions result in cases due to relaxed standing rules.
- No enumerated constitutional right to a clean and healthy environment.
- Courts often utilized the precautionary principle when dealing with air pollution.
- Intervened to remedy environmental inaction by taking an expansive interpretation of the constitutional right to life.
Landmark Constitutional Cases

• Shehla Zia v. WADPA (Pakistan)
  • Citizens argued against the construction of a power grid station in a residential area.
  • Court ruled that Article 9 of the Constitution of Pakistan and the right to life, implies the right to a clean and unpolluted environment.
    • Court heavily relied on Article 14, which provides all citizens the right to dignity.

• Dhungel v. Godawari Marble Industries (Nepal)
  • PIEL claiming that Godavari Marble Industries’ blasting and mining activities were causing severe damage to the Godavari forest and its surrounding areas.
  • “As the protection of environment is directly related to the life of a human being,” Article 11 (1) of the Constitution of Nepal, implicitly includes a right to an unpolluted environment.

• Dr. Mohiuddin Farooque v. Government of Bangladesh (Bangladesh)
  • PIEL concerning the increase in industrial pollution in the country and the government’s failure to combat the issue after multiple court orders.
  • Holding expanded on the implied right to a clean and healthy environment by determining that Government inaction can cause a violation of the right to life.
Securing Environmental Rights through Alternative Legal Approaches

  - The Sri Lankan Constitution had no express right to life.
  - Court used the principle of equality before the law to secure environmental rights for the citizens of Sri Lanka.
JUDICIAL ACTIVISM?

- Some commentators argue that this expansive interpretation is a case of judicial activism.
  - Many landmark environmental cases are characterized by liberalized rules of standing, procedural flexibility, interpretation of fundamental rights, remedial flexibility and ongoing judicial supervision.
  - Courts should only be used as a last resort, should only intervene in the most exceptional cases.
- However, these cases all run parallel with an expanding and more clearly spelled out human rights regime.
  - Many of the cases mention human rights and international agreements as secondary rationales for the creation of the implied right to a clean and healthy environment.
III. Tackling Air Pollution from Vehicles

- Vehicles under environmental scrutiny use two-stroke engines.
  - Includes small taxis such as auto-rickshaws and larger vehicles such as tempos in Bangladesh and Nepal.
- In 2000, two-stroke engines accounted for 60% of the total vehicle fleet in South Asia.
Two-Stroke Three Wheeler Emissions

- High levels of small particulate matter ($\text{PM}_{2.5}$).

- Spew Carbon Monoxide, Nitrogen Oxide and Sulfur Oxides.

- Exhaust contains high levels of unburned fuel and lubricant.

- Poor vehicle maintenance, the misuse of lubricant, the adulteration of gasoline, and the lack of catalytic converters exacerbate these emissions problems.
Judicial Approaches to Regulation of Vehicles

- Courts have used the constitutional right to equality.
    - Forced the state to pass regulations to control vehicle pollution through vehicle emission standards, oil standards for petroleum and diesel, and regulations on imported second-hand vehicles.
- Courts have weighed different constitutional rights and found the right to life more important.
  - Advocate Kedar Bhakta Shrestha v. HMG, Dep't of Transp. Mgmt. (1999) (Nepal)
    - Court balanced the constitutional right to a clean environment through the right to life with the private right to carry on a business.
Courts have phased out diesel two-stroke engines.

- M.C. Mehta v Union of India (1985-2002) (India)
  - 1996: Court mandated switch to Compressed Natural Gas for all government vehicles.
  - 1998: Buses in the city must convert to CNG Gas.
  - Gradual phase out of diesel auto-rickshaws for CNG powered auto-rickshaws.

Courts have issued strict command and control regulations

- Islam Hussein v City District Government Karachi (2007) (Pakistan)
  - The Court gave all authorities concerned three months to eliminate all vehicles emitting smoke and creating noise from the city roads. The court ordered authorities to immediately impound these vehicles and take action against the owners and drivers.
RECENT JUDICIAL APPROACHES

• Monitoring of Emissions.
  • Supreme Court Application No.87/2007 (Sri Lanka)
    • The court held that the agencies needed to conduct vehicle emissions test and that licenses would be contingent on passing the emissions test.

• Cases regarding the failure to implement earlier judicial decisions.
  • Oversight of government action:
      • The court created an Independent Commission to report whether the government was fulfilling its responsibilities in tackling pollution.
  • Court mandated time limits on implementation:
      • The court gave the government two years to implement “essential” environmental protection measures.
    • Smoke Affected Residents v. Municipal Corporation of Greater Mumbai (2003) (India)
      • After mandating the state take a host of measures to combat pollution, the court refused to extend the date of implementation.
THE NGT AND VEHICLE EMISSIONS

• India’s National Green Tribunal has been very active in combatting vehicle emissions, issuing blanket bans on certain vehicles.
  • In November, 2014 the NGT ruled that all vehicles 15 years or older must be taken off the Delhi roads.
  • Vardhaman Kaushik vs. Union of India AND Sanjay Kulshrestha vs. Union of India (2015) (India)
    • After discussing the rise of particulate matter in Delhi’s air, the court banned all diesel vehicles 10 years and older.
    • The NGT issued environmental taxes on heavy vehicles entering Delhi while also mandating the creation of a route diversion so that heavy vehicles not stopping in Delhi could not utilize the Delhi roads.
IV. Stationary Sources

Courts across South Asia have identified the varied stationary sources contributing to rise the air pollution and mandated greener practices.

- Brick Kilns
  - Pro-public and on his own Advocate Prakash Mani Sharma, et.al. v. Cabinet Secretariat, H.M.G, Singh Durbar, et.al. (2007) (Nepal)
    - The court had previously mandated that all brick kilns register and that the authorities shut down operations that failed to register. This case was meant to enforce that mandate.
    - The court ordered the creation of a team tasked with registering the brick kilns, closing brick kilns in sensitive human health and ecological areas and determining if brick kilns were valuable to the economy to determine if the industry should be forced to close as a whole.

- Industrial Pollution
  - Dr. Mohiuddin Faroque v. the Secretary, Ministry of Communications (2001) (Bangladesh)
    - The government had failed to implement a court order regulating industrial polluters.
    - The court held that government officials would be held liable and face penalties for violating constitutional rights of its citizens if action was not taken immediately.
STATIONARY SOURCES

• Stone Crushers
  • M.C. Mehta v Union of India (1992) (India)
    • The court mandated the closing of ~300 stone crushers on the outskirts of Delhi and eventually 212 stone crushers were moved away from the city.

• Hotels
  • Taurus International Projects Pvt. Ltd. Vs. Delhi Pollution Control Committee (2015) (India)
    • The court regulated small stationary emitters, mandating that hotels update their pollution control technology for both air pollution and water pollution and that those hotels that fail to comply close down.

• Garbage Burning
  • Vardhaman Kaushik Vs. Union of India AND Sanjay Kulshrestha Vs. Union of India (2015) (India)
    • The NGT tackled large and small emitters for the burning of rubbish. The NGT issued a blanket ban on burning of certain types of refuse and mandated the creation of a citizen reporting system as a means of enforcement.
CONCLUSION

• Judiciaries have been active in combatting urban air pollution.

• They have tackled the two primary sources of air pollution: vehicles and stationary sources.

• In recent years, countries are setting up judiciaries specifically for environmental litigation (NGT, Green Benches).
CONCLUSION

• The judiciary has guaranteed the right to a clean environment through a broad interpretation of constitutional rights.

• This implied right has been viewed very strongly by courts, particularly when balancing the economy with the environment.

• The judiciary’s authority may be undercut by the continued lack of implementation of mandates.