# **Op-Ed Sketch**

## **Topic:**

Is Infrastructural Development in Opposition to Environmental Conservation?

## **Members:**

* Vikash argues **against** the topic
* Harshard argues **for** the topic

## **Thesis:**

Infrastructural Development is not necessarily in opposition to Environmental Conservation.

## **Main Argument:**

Infrastructure development and environment conservation can coexist through the practices of sustainable infrastructure, technological advancement, and strong administrative policies.

Sustainable infrastructure can reduce the environment harm by using eco-friendly infrastructure like green roofs, permeable pavements, and climate-resilient urban planning. The Ice Stupas in Ladakh by Sonam Wangchuk which reduces scarcity of water in summer by saving winter water through infrastructural processes without harming nature.

Similarly, technological advancement also plays an important role, when we talk about Wangchuk’s solar-powered SECMOL (Students' Educational and Cultural Movement of Ladakh) campus, which proves that the modern infrastructure can be eco-friendly.

Additionally, the government’s strong administrative policies crucially enforces that infrastructure development is done with respect to the environment conservation as a sustainable growth. The strong and continuous assessments of environmental impacts and green finance initiatives, such as the World Bank’s Climate Bonds, incentivize sustainable infrastructure projects. Wangchuk’s push for carbon-neutral policies in Ladakh highlights another aspect of infrastructural development under the regulatory policies.

Perhaps our Azim Premji University campus is also one of the parts of the infrastructural development which preserves the natural biodiversity by maintaining the flora around the campus, each building's architectural designs show the eco-friendly nature (light and wind), and solar-powered buildings lead to sustainability. This exemplifies that when infrastructure development is done with respect to the environment conservation then it does not necessarily threaten the environment rather support and enhance environment conservation around us.

**Standard form:**

**P1:** If infrastructure development is sustainable, then it reduces environmental harm.

**P2:** If technological advancements are used in infrastructure, then it becomes more eco-friendly.

**P3:** If strong administrative policies are enforced, then infrastructure development aligns with environmental conservation.

**P4:** If some infrastructure projects preserve biodiversity, then all infrastructure does not harm the environment.

**C:** Infrastructural development is not necessarily in opposition to environmental conservation.

## **Explanation of premises:**

**P1:** Sustainable infrastructure can reduce the environment harm by using eco-friendly infrastructure like green roofs, permeable pavements, and climate-resilient urban planning. The Ice Stupas in Ladakh by Sonam Wangchuk which reduces scarcity of water in summer by saving winter water through infrastructural processes without harming nature.

**P2:** Technological advancement makes modern infrastructure eco-friendly when seen with examples like Wangchuk’s solar-powered SECMOL campus proves that sustainable construction is possible.

**P3:** The strong administrative policies enforces infrastructure development with respect to environmental conservation. The environmental impact assessments, green finance initiatives like the World Bank’s Climate Bonds, and Wangchuk’s advocacy for carbon-neutral policies in Ladakh.

**P4:** Certain infrastructure projects like Azim Premji University campus infrastructure which preserve natural biodiversity and promote sustainability by maintaining flora, uses eco-friendly architecture, and are solar powered.

**C:** Therefore, infrastructural development is not necessarily in opposition to environmental conservation.

**To sum up -**

Infrastructure development integrates sustainability, technology, and policy. Therefore, infrastructure development does not necessarily oppose environmental conservation.

**Validity and soundness of the argument:**

**Validity check:**

**Combining all premises together -** IF infrastructure development integrates sustainability, technological advancement, administrative policies, THEN it does not necessarily oppose environmental conservation.

**Logical form -** IF A THEN B

* The argument follows the MODUS PONENS rule

Therefore, infrastructural development is not necessarily in opposition to environmental conservation.

**Soundness check:**

**P1:** Studies on green roofs, permeable pavements, and climate-resilient urban planning confirm that such designs reduce environmental impacts. And also as the example stated in the argument about Ice Stupas.

* TRUE - Sustainable infrastructure does reduce harm when applied correctly.

**P2:** Solar power, energy efficiency designs, and smart grids, reduce reliance on fossil fuels. Wangchuk’s solar-powered SECMOL campus is an existing proof of this claim.

* TRUE - Technology can make infrastructure eco-friendly.

**P3:** Environmental impact assessments (EIA), green finance initiatives (World Bank’s Climate Bonds), and carbon-neutral policies promote sustainable infrastructure. Also, Wangchuk's advocacy for carbon neutrality in Ladakh is an example of policies aligning infrastructure with conservation.

* TRUE - Well-enforced policies do contribute to sustainability.

**P4:** Sustainability university, eco-friendly buildings, and biophilic architecture preserve biodiversity while maintaining functionality. As stated in the example of APU.

* TRUE - Some infrastructure projects actively support conservation.

Since all premises are true and the argument is valid and sound, therefore it is a GOOD DEDUCTIVE ARGUMENT.

**Resources:**

1. How does infrastructure support sustainable growth? - <https://blogs.worldbank.org/en/digital-development/how-does-infrastructure-support-sustainable-growth>
2. Sustainable infrastructure, a must in the fight against climate change - <https://www.iberdrola.com/sustainability/sustainable-infrastructure>
3. Wangchuk’s solar-powered SECMOL campus - <https://secmol.org/about/eco-friendly-living/renewable-energy/>
4. Studies on green roofs, permeable pavements, and climate-resilient urban planning - <https://www.sciencedirect.com/science/article/pii/S2772411524000739>
5. Wangchuk's advocacy for carbon neutrality in Ladakh - <https://india.mongabay.com/2022/01/the-leh-airports-journey-towards-carbon-neutrality/#:~:text=Mission%20carbon%20neutrality>
6. about Ice Stupas - <https://www.butlernature.com/2025/02/19/ice-stupas-an-icy-innovation-in-a-warming-world/>
7. [*Delhi Metro Helps Citizens Go Green In These 5 Ways—Wingify*. (n.d.). Retrieved April 10, 2025, from https://wingify.earth/single-impact-article/delhi-metro-helps-citizens-go-green-in-these-5-ways](https://www.zotero.org/google-docs/?SIJVpQ)
8. [The Øresund Bridge: En route to becoming the world’s most sustainable. (n.d.). *State of Green*. Retrieved April 10, 2025, from](https://www.zotero.org/google-docs/?SIJVpQ) <https://stateofgreen.com/en/news/the-oresund-bridge-en-route-to-becoming-the-worlds-most-sustainable/>