



# HARYANA 2047

A vision plan for a  
*'Future ready Haryana'*

# NAVIGATING AND ADDRESSING FUTURE TRENDS:

A compendium of resources for insights and action

**WG4: GROWTH ENABLERS AND INFRASTRUCTURE DEVELOPMENT**

## Videos

1. [Economic growth has stalled. Let's fix it | Dambisa Moyo | TEDGlobal](#)  
Economic growth is the defining challenge of our time; without it, political and social instability rises, human progress stagnates and societies grow dimmer. But, says economist Dambisa Moyo, dogmatic capitalism isn't creating the growth we need. As she shows, in both state-sponsored and market-driven models, capitalism is failing to solve social ills, fostering corruption and creating income inequality. Moyo surveys the current economic landscape and suggests that we have to start thinking about capitalism as a spectrum so we can blend the best of different models together to foster growth.
2. [How to protect fast-growing cities from failing | Robert Muggah | TEDGlobal](#)  
Worldwide, violence is on the decline, but in the crowded cities of the global south — cities like Aleppo, Bamako and Caracas — violence is actually accelerating, fueled by the drug trade, mass unemployment and civil unrest. Security researcher Robert Muggah turns our attention toward these "fragile cities," super-fast-growing places where infrastructure is weak and government often ineffective. He shows us the four big risks we face, and offers a way to change course.
3. [Sustainable cooling that doesn't warm the planet | Rachel Kyte | Countdown Summit](#)  
"The way we cool things down is heating the planet even more," says sustainable development expert Rachel Kyte -- and the solutions go well beyond just fixing air-conditioning. She identifies four major areas with transformative solutions -- from roofs painted with bright white paint to solar control glass to more efficient cold chains for vaccines -- that can be implemented in fair and sustainable ways.
4. [Vision 2045 - Goal 9: Industry, Innovation and Infrastructure, with Grete Faremo | TED Media Group](#)  
UN's Sustainable Development Goal no.9 - Industry, Innovation & Infrastructure. Build resilient infrastructure, promote sustainable industrialization and foster innovation. Sustained investment in infrastructure and innovation are crucial drivers of economic growth and development. With over half the world population now living in cities, mass transport and renewable energy are becoming ever more important, as are the growth of new industries and information and communication technologies.
5. [Directing Large Infrastructure Projects: Reach Beyond Your Grasp | Jamey Barbas | TEDxTarrytown](#)  
Jamey Barbas, the engineer serving as the Project Director of the new Governor Mario M. Cuomo Bridge Project in New York, takes us through her personal journey and what led her to pursue a career in engineering. She describes what it takes to lead large multi-disciplinary infrastructure projects, how these projects can provide opportunities to teach children about careers in STEM and how we can all try to change the world for the better - if we just reach beyond our grasp.
6. [Infrastructure for the ages | Alister Kratt | TEDxWhitehall](#)  
Do we want new infrastructure that we can truly be proud of, like the farsighted designs of Victorian engineer Joseph Bazalgette? If so, we need to think about more than just

short-term economics. LDA Design landscape architect and masterplanner, Alister Kratt, suggests we need to think about quality of design and the delight of the everyday.

7. [Rethinking Infrastructure in a World Designed for Men | Grete Faremo | TEDxFrederiksberg](#)

Grete Faremo joined the United Nations and UNOPS as Under-Secretary-General and Executive Director in August 2014. Before this appointment, Grete held various senior-level positions for the Government of Norway. She brings a wealth of experience from the private sector, working as the Executive Vice President for the Norwegian insurance group, Storebrand, and as Director of Law and Corporate Affairs at Microsoft Corporation's Western European Office. Grete is passionate about placing gender equality and the rights of women at the forefront of development projects. This talk was given at a TEDx event using the TED conference format but independently organized by a local community.

8. [Green/gray infrastructure: redefining cities | Landolf Rhode-Barbarigos | TEDxBoston](#)

Since 1980, the U.S. has sustained 332 weather and climate disasters. The total damages/costs from these disasters surpass \$2.2 trillion. These events include tropical cyclones and hurricanes, which bring extreme winds, rain, storm surge, and waves to coastal communities with often devastating impacts. Considering that close to 30% of the total U.S. population lives near the coast, identifying sustainable solutions against such hazards represents a critical societal need. The hard solutions that are often utilized to protect coastal communities against high-intensity storms and flooding typically do not provide a hospitable environment for biodiversity. "Living Shorelines" are often considered as the ideal ecofriendly protection barrier. However, they may not be applicable in areas with small footprint availability and/or harsh wave conditions and high surges. We thus seek improvements over traditional systems in both ecological and engineering performance through novel sustainable solutions. SEAHIVE™ is an engineered marine and estuarine protection system composed of perforated hexagonal prismatic elements. Perforations on the side faces of the elements provide passage for water flow under surging or breaking waves dissipating the wave energy within the elements. In the system configuration, the perforations form interconnected channels providing habitat and protection for marine life. Ecological engineering studies have shown that adding structural complexity to the designs of protective systems improves their biocompatibility. Biocompatibility is also promoted through surface roughness and material selection i.e. a biophilic concrete mixture and non-corrosive reinforcement. SEAHIVE™ research and development has been based on morphological considerations and physical tests in the University of Miami SURge STructure Atmosphere INteraction (SUSTAIN) Facility, auxiliary material biocompatibility studies, as well as a series of pilot projects/installations. Architecture, Cities, Climate Change, Ecology, Engineering, Sustainability.

9. [How megacities are changing the map of the world | Parag Khanna | TED2016](#)

"I want you to reimagine how life is organized on earth," says global strategist Parag Khanna. As our expanding cities grow ever more connected through transportation, energy and communications networks, we evolve from geography to what he calls "connectography." This emerging global network civilization holds the promise of

reducing pollution and inequality -- and even overcoming geopolitical rivalries. In this talk, Khanna asks us to embrace a new maxim for the future: "Connectivity is destiny."

10. [No roads? There's a drone for that | Andreas Raptopoulos | TEDGlobal 2013](#)

A billion people in the world lack access to all-season roads. Could the structure of the internet provide a model for how to reach them? Andreas Raptopoulos of Matternet thinks so. He introduces a new type of transportation system that uses electric autonomous flying machines to deliver medicine, food, goods and supplies wherever they are needed.

11. [Welcome to the age of the industrial internet | Marco Annunziata | TED@BCG San Francisco](#)

Everyone's talking about the "Internet of Things," but what exactly does that mean for our future? In this thoughtful talk, economist Marco Annunziata looks at how technology is transforming the industrial sector, creating machines that can see, feel, sense and react -- so they can be operated far more efficiently. Think: airplane parts that send an alert when they need to be serviced, or wind turbines that communicate with one another to generate more electricity. It's a future with exciting implications for us all.

### **Articles/Reports**

1. [How Can Progress on Infrastructure, Industry and Innovation Contribute to Achieving the SDGs? By SDG Knowledge Hub](#)
2. [Physical and Digital Infrastructure: Lifting Potential Growth](#)
3. [Infrastructure financing in India: 10 key takeaways from the conversation with Vinayak Chatterjee](#)
4. [Review of Infrastructure Development and Its Financing in India by Reena Aggarwal](#)
5. [Government policies: Strong enabler to push infrastructure development by Sandeep Gulati](#)
6. [How Does New Infrastructure Investment Affect Economic Growth Quality? Empirical Evidence from China by Xin Du, Hengming Zhang and Yawen Han](#)
7. [Infrastructure and Growth in Developing Asia by Stéphane Straub and Akiko Terada-Hagiwara](#)
8. [National Enablers for Infrastructure Investment and Economic Development in Secondary Cities in Ghana and Uganda](#)
9. [Watch out: Infrastructure growth ahead - As business dynamics across sectors shift to digital, a lot can be expected from the government and private players by Rajit Harshik Desai](#)
10. [The Effects of Infrastructure Development on Growth and Income Distribution by César Calderón and Luis Servén](#)
11. [Infrastructure Investment and Economic Growth in India: An Empirical Analysis by Biswajit Paul and Ashish Kumar Sana](#)
12. [Building India: Transforming the nation's logistics infrastructure](#)