



IND

2018

ONE PLANET CITY CHALLENGE

2017-2018 | WWF's global platform for cities

Overview and best practices from finalist Indian cities

CITIES AND CLIMATE CHANGE

Over 54 per cent of the global population lives in cities which is projected to be 60 percent by 2030. Cities currently account for more than half of the global green house gas emissions and about two thirds of global energy use. Rapid urbanization has posed challenges such as higher energy demand, pollution, unmanaged waste, unsustainable use of natural resources, leading to adverse impacts on the quality of life and sustainability of cities. On the other hand, millions of people residing in cities and urban areas are heavily vulnerable to the impacts of climate change.

India has witnessed rapid urbanization in recent years and the trend will continue in future. The country has an urban population of more than 30 per cent currently which is expected to be 40 per cent in 2030. As Indian cities cater to growing populations, they would also be faced with the challenges related to provision of basic necessities such as housing and transport, which would further lead to increased demand for energy and water, higher emissions and waste generation, deteriorating air quality and, associated health impacts.

It is therefore imperative for cities to play a larger role in countering the challenges of climate change by integrating low carbon actions and sustainable energy use into local development goals, and simultaneously strive towards climate resilient growth and planning. Climate smart planning in cities will determine the extent and impact of climate change, and ability to achieve emission reductions as well as the capacity to adapt to changing circumstances.

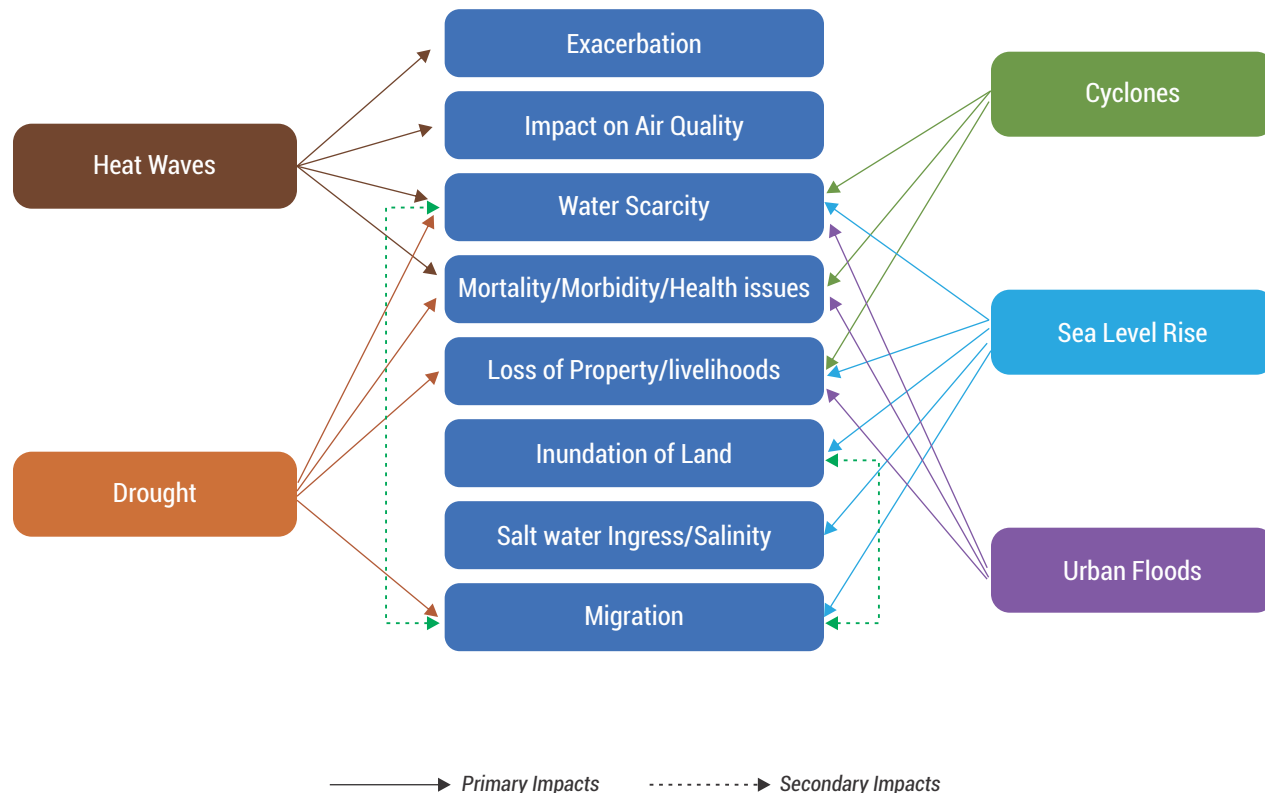
Globally, the significance of integrating sustainability in cities' actions and plans has been recognized. The need to strengthen

the response to climate change in cities is being discussed across major global agendas such as Sustainable Development Goals, Paris Agreement, and the New Urban Agenda. Non-party stakeholders (cities, businesses, sub national regions, investors, and civil society) came together to lend momentum to the Paris agreement in 2015 with commitments to act on climate change. At the UN Climate Conferences in Marrakesh in 2016 and Bonn in 2017, countries restated their understanding that success on climate change will require greater ambition on the part of non-state actors. The UN's 2015 Sustainable Development Goals included an explicit urban goal for the first time - Goal 11 (Sustainable Cities and Communities). Similarly, Goal 7 (Energy) and Goal 13 (Climate Action) are also relevant to cities. Over two-thirds of the submitted Nationally Determined Contributions (NDCs) show clear urban references and content, establishing the relationship between sustainable urbanization and climate action. The New Urban Agenda, adopted at Habitat III, resolves to enable national, sub-national and local governments along with other stakeholders to achieve sustainable urban development.

In recent times, the Government of India is also focussing on the transformation and rejuvenation of cities through various schemes and programmes which have a thrust on promoting smart solutions that can make cities climate resilient. The ambitious SMART cities mission and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) were launched to address the issue of infrastructure gap in urban areas, besides enhancing the business and investment climate for the benefit of the poor. The aim was to develop 100 smart cities that are ahead of the curve in decision making, problem solving, as well as ease

of living of citizens, and improve infrastructure in another 500 cities, under the AMRUT scheme. The “Solar Cities” mission was designed to support Urban Local Bodies (ULBs) to prepare a road map to guide cities in becoming 'renewable energy cities' or 'solar cities'. There have been various other initiatives where cities have a central role such as the target of installing 40GW of grid connected rooftop solar PV capacity by 2022, and the National Electric Mobility Mission 2020 which has an ambitious target to achieve 6-7 million sales of hybrid and electric vehicles year on year from 2020 onwards.

Impacts of Climate Change on Cities



Examples of mitigation and adaptation measures undertaken by cities:

Mitigation Measures

Energy

Renewable Energy

- Aggressive renewable energy targets.
- Promoting wind-solar hybrid systems and solar power installations (rooftop PV, water heaters, street lights etc.)

Energy Efficiency

- Adopting energy efficient measures for lighting, buildings and housing.
- Setting up dedicated Energy Saving Cell to guide energy projects.
- Promoting sustainable housing practices .

Transport

- Implementing comprehensive mobility plans.
- Improving public transport infrastructure & traffic management.
- Promoting Mass Rapid Transport (Bus Rapid Transit and Metro).
- Encouraging non-motorized transport.
- Making pedestrian and cycle-friendly street designs.
- Propagating fuel shift from diesel to CNG and/or electric.

Waste Management

- Ensuring efficient waste collection and management.
- Managing wet waste through composting and biomethanation.
- Setting up waste recovery/recycling plants.
- Implementing efficient Municipal Solid Waste management (Waste-to-Energy plants).

Public Awareness and Capacity Building

- Development of dedicated energy parks and environment education centres for dissemination of information about energy saving and renewable energy to the citizens.

Adaptation Measures

Waste Management

- Recycling treated waste water.
- Improving water supply system to minimize non-revenue losses.
- Undertaking rejuvenation of water bodies.

Built Environment and Buildings

- Increasing urban green spaces.
- Adopting water sensitive urban design and planning.
- Insulating buildings with cool roofs/green roofs.

Policy/Action Plans/Institutional measures

- Implementing Heat Action Plans and Climate Change resilience strategies.
- Establishing early warning systems for floods and heat waves.
- Establishing emergency/disaster management cells.
- Creating awareness among citizens about actions to be taken during extreme events.

ONE PLANET CITY CHALLENGE

Globally, several cities are driving change by integrating low carbon actions into local development goals, and simultaneously mainstreaming climate resilient growth. Several Indian cities are also a part of this transition and have exemplified their role in addressing climate change. In order to sustain this momentum there is a need to recognize cities that are leading the shift towards a climate-resilient future, and stimulate the development and wider dissemination of best practices.

WWF's global initiative for cities – One Planet City Challenge (OPCC) aims to mobilise action and support from cities in the global transition towards a climate friendly future, and to stimulate ambitious plans for low carbon development, as well as enhancing the use of sustainable, renewable and energy efficient solutions.

OPCC, earlier called the Earth Hour City Challenge(EHCC), is now a global biennial challenge that is designed to highlight and reward cities that are willing and prepared to make substantial long-term efforts toward sustainability and resilience. The platform also aims at inspiring and supporting cities to become climate-smart and sustainable solution hotspots.

OPCC first began in 2011 in Sweden and then expanded globally in 2012 with ICLEI as the technical partner. Sustainable

actions from the participating cities are reviewed by an international jury of experts. After the evaluation, the best city from each country is announced as the National Winner and one city amongst these is declared as the Global Winner.

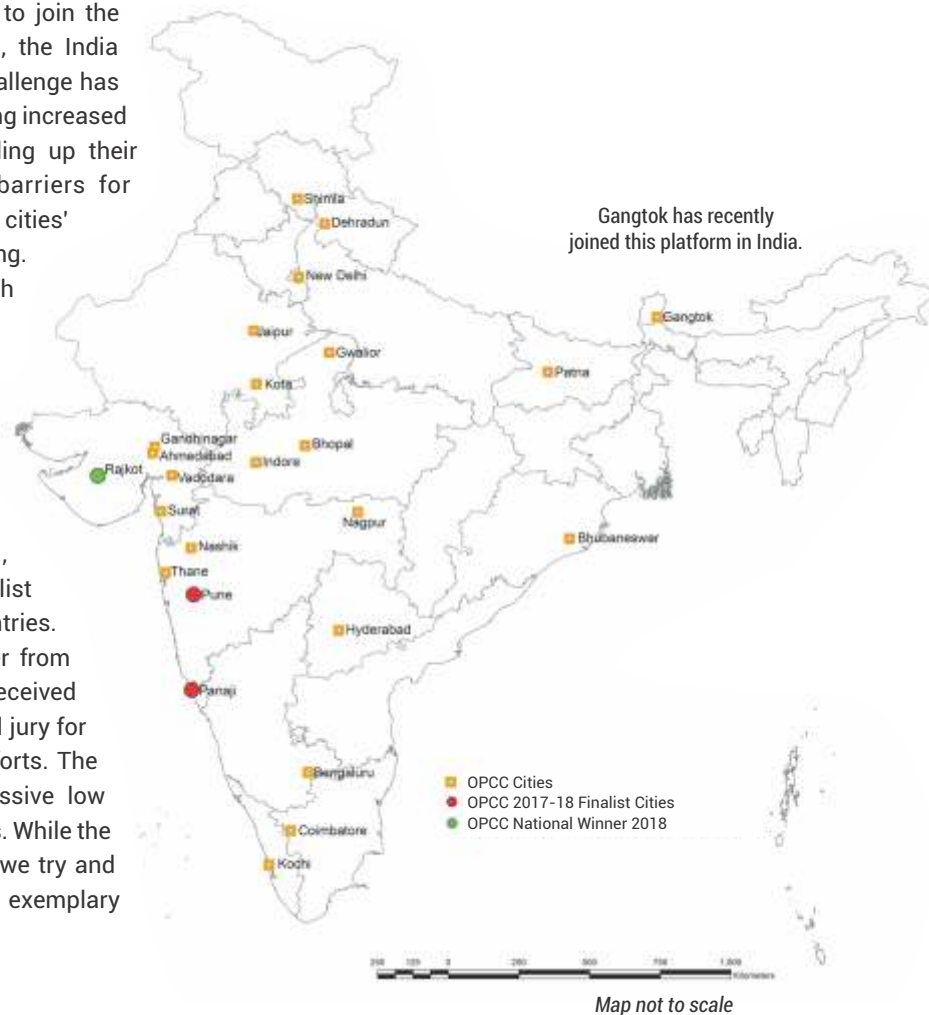
Vancouver, Cape Town, Seoul, and Paris were awarded the title of Global Earth Hour Capital in 2013, 2014, 2015, and 2016, respectively. The Swedish city of Uppsala was adjudged the Global Winner in 2018.



ONE PLANET CITY CHALLENGE - INDIA

India was the first developing country to join the challenge in 2012. Since its inception, the India chapter of erstwhile Earth Hour City Challenge has been engaging with the cities by providing increased support and capacity building in scaling up their climate actions by addressing the barriers for integration of a climate focus into the cities' policies, action plans and urban planning. WWF-India partners with ICLEI-South Asia for the Indian chapter of OPCC.

Over the years, 24 cities from across 14 states have been part of the city challenge in India. New Delhi, Coimbatore, Thane, and Rajkot have been National Earth Hour Capitals previously. In OPCC 2017-18, Panaji, Pune & Rajkot were among the 40 finalist cities from across 23 participating countries. Rajkot emerged as the National Winner from India in 2018 for the second time. Pune received a special mention from the international jury for its climate action and sustainability efforts. The three cities stood out for their impressive low carbon plans and actions across sectors. While the initiatives by these cities are manifold, we try and give you an overview of some of their exemplary actions!





ONE PLANET CITY CHALLENGE



THE INITIATIVE

SINCE

2011



Largest and longest
running of its kind

THE PURPOSE

WWF's One Planet City Challenge aims to mobilize increased climate action from cities. Cities are evaluated on level of ambition and innovation for low carbon development adapted to local circumstances.

GLOBAL AND INDIA RESULTS

23

Countries on
5 continents
in 2018

24

Cities across
14 states
from India



1376*

Commitments
(of which 651 are GHG
commitments) 411 cities



19

International
experts on the
OPCC jury

132

Cities joined
in the current
round

11

Cities from
India joined in
the current round



3,856Mt*

GHG reduction
potential until 2050
(400Mt until 2020)
411 cities

HOORAY!

UPPSALA - GLOBAL WINNER 2018

Goal: Net zero CO₂e by 2050,
at community level

411

Cities have accepted
the challenge in total



5732*

Actions from all
411 OPCC cities

598*

Actions from 24 Indian
OPCC cities

RAJKOT - NATIONAL WINNER 2018

Goal: Rajkot aims to reduce community
level emissions by 25% by 2020
from 2012 level

* As reported on ICLEI's Carbohn Climate Registry - A global platform where cities report goals and actions underpinning their evaluation.

RAJKOT

National Winner



Energy



- Around 1.5 lakh 30W CFL and 100W incandescent bulbs replaced with 9W LED bulbs, 42,000 55W tubelights replaced with 20W LED tubelights, and more than 18,000 conventional 50W fans replaced with energy efficient fans, under the UJALA scheme from December 2015 to December 2017.
- Revised building by-laws making solar water heating mandatory resulted in around 30,000 properties utilising solar water heating system in 2015-16.
- Energy efficient appliances installed under Smart Ghar 1 affordable housing scheme.
- A total of 3162 kWp solar rooftop PV installed in residential, educational, commercial, industrial, and municipal buildings. Additional 7.49 MW solar rooftop PV project proposed to be installed.
- All existing 54,000 High Pressure Sodium Vapour (HPSV) lights retrofitted with LED lights based on ESCROW model.
- Energy audit of all pumping machineries completed by Energy Efficiency Services Ltd (EESL) appointed by Government of India.
- Conventional tubelights and fans in municipal buildings replaced with 4656 LED tubelights and 982 energy efficient fans.

Waste Management



- Decentralized facilities set up to treat 2 tpd garden waste at 11 sites and 1.5 tpd vegetable waste at 6 sites.
- Compost generated by three waste to composting plants (5MT capacity each) being utilised in RMC gardens.
- 100 kWh electricity generated by 5 MT waste to bio-methanation plant being utilized to power 40 streetlights.
- 7.5MW waste to energy plant proposed to treat 600 MT waste per day.
- 18 decentralized waste to composting plants proposed in each ward (5MT capacity each) to reduce pollution from waste transportation.
- 100 tpd construction and demolition waste recycling plant proposed.
- Sewage treatment capacity augmented to cover existing gap in untreated sewage.

Transport



- The city has a 10.7 km operational Bus Rapid Transit System (BRTS) out of the proposed 63 km long network. 11 BRTS diesel buses proposed to be replaced with electric buses.
- Electric bikes provided to Rajkot Municipal Corporation (RMC) officers for field visits with 9 electric bikes already procured.
- Bicycle sharing scheme introduced to promote Non-Motorized Transportation (NMT). A dedicated 21.4 km cycle track created along BRTS corridor with 24 cycle rental stations and 195 cycles.
- Project 'Green Ways' has been proposed to provide more cycling and pedestrian tracks for safe and secure NMT in the city.
- Initiatives taken to maximize use of public transportation by providing concession for students and elderly people and introduction of e-ticketing, mobile based application for Rajkot Mass Transport Service (RMTS) and BRTS buses.

Housing



- Green building design introduced in Smart Ghar 3 which demonstrates reduced energy demand and use of renewable energy in affordable housing schemes.
- Green Building Policy prepared - to promote energy efficiency in building sector.
- SMART society scheme introduced to encourage sustainable practices in the residential sector and integrate community efforts for zero waste, adoption of renewable energy & water management.

Community Engagement & Awareness Building



- Awareness campaigns on waste segregation at source undertaken in all zones.
- District level energy park established to increase public awareness on clean energy applications.
- Online energy efficiency & renewable energy resource centre established (Akshay Urja website for citizens).
- Training programmes on green building guidelines and sustainable transport proposed.

PUNE

Special Mention



Energy



- 12kW solar PV system, consisting of 48 solar panels, each having capacity of 250W, installed in the Pune Municipal Corporation (PMC) building.
- Subsidy in property tax for installation of solar water heaters provided to around 12,000 households.
- Dedicated energy saving cell set up to undertake energy saving actions and projects, and promote renewable energy.
- About 16,000 high pressure sodium vapor streetlights replaced with LED fittings leading to 40% - 45% energy savings.
- Energy efficient retrofits for HVAC and lighting systems installed at an industrial park and municipal buildings.

Waste Management



- Solid waste management system improved through door-to-door collection of approximately 150 tonnes of dry recyclable waste everyday, from more than 4 lakh households through Solid Waste Collection and Handling (SWaCH), a joint effort of PMC and the waste pickers' union.
- 700 MT municipal solid waste to energy plant set up which feeds electricity into the grid.
- Tax rebate given for vermicomposting facilities.

Biodiversity



- Biodiversity Management Committee established and People Biodiversity Registry being prepared. Book titled "Jivasch" on Biodiversity of Pune city published.

Transport



- Comprehensive Mobility Plan developed to emphasise on sustainable modes of transportation.
- First city to have dedicated cycle department within municipal corporation.
- Subsidies provided to 16,000 auto rickshaws to convert to CNG fuel.
- Street re-design guidelines introduced in 2016. Pilot street re-design at JM Road and Aundh area of 1.5 km under Smart City Mission implemented with plans to further to scale it up to 8km.
- Public Parking Policy 2016 approved.
- 16 km long BRTS in place with approximate 67000 daily ridership.
- Metro network of 31 kms under construction.

Housing



- First Indian city to adopt Eco-Housing programme that promoted rating for green buildings and encouraged developers to adopt the Eco-Housing criteria in 2007-08. Presently run under GRIHA rating system.

Community Engagement & Awareness Building



- Indradhanushya Environment Education and Citizenship Centre set up in 2012 to provide students a platform to perform and recognise their potential in terms of knowledge and awareness for environment.
- PMC Care version 2 - an app to connect PMC with citizens launched.
- Environment Status Report published every year since 1996.

PANAJI

Energy



- 30 kW solar PV plant installed on rooftop of Raj Bhavan, the official residence of Governor of Goa. The generated power being used for streetlights and garden within the premises.
- The 50 kWp Solar PV system proposed to be set up on the roof top of National Institute of Oceanography in Dona Paula, Panjim.
- 50kWp solar rooftop PV system proposed at the Dhempe College of Arts and Science Building.
- Installation of energy efficient fixtures at municipal market proposed.

Waste Management



- 100% collection and segregation of waste at source.
- Campaigned for "Bin Free City in 2003" for improved solid waste management system in the city. It involved door to door collection and segregation of waste leading to recycling and composting.

Transport



- Intelligent transportation system- a central command and control centre for multi modal public transport system including NMT, to be operated.
- Public bicycle sharing system proposed.
- NoMoZo (Non-motorized Transportation Zone) was created to generate awareness about car-free streets and ease of mobility to pedestrians.
- Buses being procured for a light BRTS to cater to different street sizes.

Community Engagement



- TRASH (Thinking, Reflecting and Acting for Sustainable Habitat) - an awareness programme on recycling, being run in the city.
- A programme named WASTE WISE initiated to educate students on waste management.

PUBLIC ENGAGEMENT

Mobility - a key area for delivering solutions for a climate-resilient future, was the theme for the 2017-2018 edition of the One Planet City Challenge.

With an aim to promote Sustainable Mobility as part of the OPCC initiative, WWF-India in partnership with the respective Municipal Corporations, supported by ICLEI-South Asia, hosted public events in Bengaluru, Dehradun, Kochi and Panaji.

The events witnessed participation from over 1500 citizens across Bangalore, Dehradun, Kochi and Panaji, come together to take a stand for the cause of adopting smarter and greener choices of commute and inspire positive action for the planet.

In line with WWF-India's Give Up to Give Back initiative, the events encouraged people to make sustainable lifestyle choices in their lives, like cycling, walking and carpooling, whenever possible and come forward to take pledges to #GiveUp on unsustainable practices.



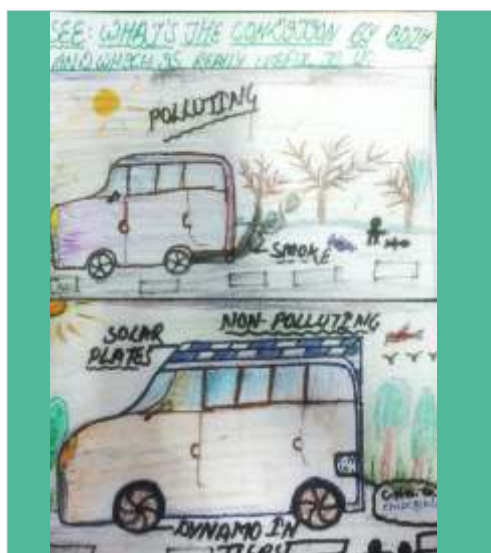
Pedalathon - Cyclothon & Marathon in Kochi



One Planet Streets for All in Panaji



Painting Competition for students on Sustainable Mobility in Dehradun



Pedalathon – Cyclothon & Walkathon in Bengaluru

The We Love Cities(WLC) campaign is an associated global digital campaign inviting citizens to show support for their OPCC finalist cities that are going above and beyond to create a more sustainable, climate-friendly future.

The WLC Campaign was run across social media platforms – Twitter, Instagram and Facebook. Citizens were invited to vote for their favourite cities and share what they love about them through comments, photos and videos and submit suggestions as to what actions their cities can take to become even more sustainable.

Panaji , Pune and Rajkot were the Indian representatives in this global campaign.

WE LOVE CITIES

RAISING CITIZENS' VOICES FOR A SUSTAINABLE FUTURE



THE CAMPAIGN

MAY – JUNE

2018

50 cities on 5 continents,
= 100,000,000 citizens
represented

Only open to finalist municipalities within WWF's One Planet City Challenge. Based on the cities' sustainability reporting on the Carbonn Climate Registry. Validated by an international jury of experts.



CAMPAIGN QUEST

To engage as many citizens as possible in sustainable city development via welovecities.org, social media and on the ground actions in cities.

SOCIAL MEDIA ENGAGEMENT IN INDIA



WWF-India @WWFINDIA · May 11

Panaji, Pune & Rajkot are taking actions to lead the transition towards a climate-friendly future. Join the global celebration of the most lovable sustainable cities & show your support for your favourite city! #welovepanaji #welovepune #weloverajkot @PMCPune @smartcityrajkot



WWF-India @WWFINDIA · May 11

#WeLoveCities has started! Panaji, Pune & Rajkot are battling it out for the people's choice award! Which city is your favorite? Tweet & RT with their respective hashtags to garner points for your city! #welovepanaji #welovepune #weloverajkot @PunePnc @smartcityrajkot @WWFCities



WWF-India @WWFINDIA · Jun 9
 #WeLovePune is taking actions to promote renewable energy & has targeted RE to make 5% of energy consumption by 2018 at community & government levels! Support Pune for its initiatives and vote: weplanetcity.org/pune #WeLovePune @PunePam @mehangarika @arunaw_pune



WWF-India
 25 June at 20:00 · 🌍

Are you stuck in traffic as you see this? Is the image on the left a familiar sight for you? Perhaps this is the time to figure which road we're going down - taking many other species along with us! Unsustainable modes of transportation cause carbon dioxide emissions and devastating climate change. If we continue to drive down this road, coastal cities will be flooded, people will suffer and more than half of our fellow species could disappear!

Yet, opportunities & solutions exist - and are in our hands. We can change our transportation practices, our home, our cities, our country and our planet for the better.

This year, over 100 cities participated in our One Planet City Challenge, with the main task to submit actions on sustainable mobility. Amongst the many Indian cities who submitted their actions, Pune, Rajkot and Panaji have made it to the final round and are now in the running for the title of National and Global Winner. Stay tuned for those solutions! #WeLoveCities #WWF



WWF-India @WWFINDIA · May 28
 #WeLoveRajkot Because it has a robust climate resilience strategy. Vote for Rajkot & help it win the Most Loved City Award! Vote & share your ideas for improvement on: weplanetcity.org/rajkot. Tweet what you love about it using its hashtag #WeLoveRajkot | @smartcityrajkot



4 16 24



WE LOVE PUNE
 JOIN YOUR FAVORITE CITY ON ITS JOURNEY TO SUSTAINABILITY

weplanetcity · Following



weplanetcity Pune is leading by example in its journey towards becoming a resilient city! It is expanding its bike network and has developed a comprehensive mobility plan to manage traffic demand. It is also implementing a Street Redesign Program across a stretch of over 27km to help you walk and cycle easily! Support Pune for its initiatives and help it win the Most Loved City Award 2018! Vote for it and even share your ideas for making it better in the link in our bio! @pncipune #WeLovePune

sinha.ankit @anantabhadra @varunthale

366 likes
 and 19

Add a comment...

1

Panaji

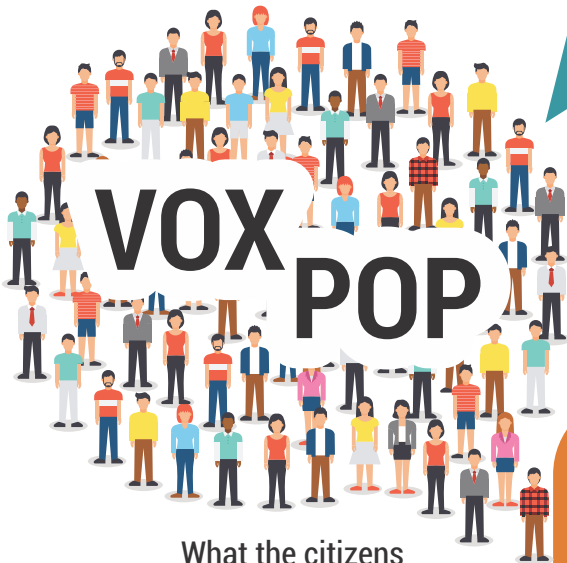
- Install solar panels on residential and commercial buildings.
- Improve public transportation to solve traffic issues.
- Promote electric vehicles and develop requisite charging infrastructure in the city.
- Procure electric buses for public transport.
- Develop waterways along with developing cycling tracks in the city.
- Organize plantation drives in the city.
- Conduct awareness campaigns on composting at household level.

Pune

- Make footpaths wider and greener to encourage people to walk for smaller distances instead of taking a vehicle.
- Encourage green building concepts in real estate.
- More awareness for citizens on waste segregation at source.
- Conduct awareness drives to make city plastic free by involving local businesses as well.
- Improve green areas, prevent deforestation and curb new construction in natural habitats.
- Install vertical gardens wherever possible.
- Make rain water harvesting compulsory for every household and building.

Rajkot

- Install solar panels on rooftops of residential buildings.
- Conduct awareness campaigns to encourage people to use solar energy.
- Introduce GPS enabled electric buses for transportation.
- Build road cross over bridges to avoid road accident and increase pedestrian safety.
- Implement more waste to energy projects.
- Improve green belt in the city.



What the citizens
of Panaji, Pune and Rajkot
have to suggest to
further improve their cities!



ONE PLANET CITY CHALLENGE

National Winner 2018

Rajkot was declared as the National Winner from India in the 2018 edition of the One Planet City Challenge for demonstrating a comprehensive approach in undertaking progressive actions towards integrating sustainability in its initiatives. The city has made significant commitment in reducing its GHG emissions, in addition to strong strategies to drive this change.



Hon'ble Mayor of Rajkot, Ms Binaben Acharya and Municipal Commissioner, Mr Banchhanidhi Pani at the OPCC Global Award Ceremony held during Global Climate Action Summit (GCAS) in September 2018 at San Francisco, California.



"It gives us immense pride in knowing that Rajkot has once again been selected as the national winner from India under the global One Planet City Challenge 2017-18. Rajkot Municipal Corporation has embarked on a journey to adopt and implement various innovative and sustainable measures in its local practices along with engaging with the citizens in the process. We hope to continue implementing and mainstreaming sustainable actions in transportation, energy efficiency and renewable energy sectors while being engaged with WWF-India and ICLEI South Asia in future as well."

— Ms Binaben Acharya, Hon'ble Mayor of Rajkot



Why we are here

To stop the degradation of the planet's natural environment and
to build a future in which humans live in harmony with nature.

www.wwfindia.org

For more information, please contact:

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