

Journey to Planet Earth

Transcript for Episode 02: The Urban Explosion

Complete Version

Journey to Planet Earth is produced by

Screenscope, Inc. 4330 Yuma St, NW Washington, DC 20016

(Opening Montage)

We have always been drawn to cities -- yet from high above signs of life are nearly impossible to detect -- until day slowly turns back into night to reveal shimmering islands of intense human activity.

Whether lured by neon or driven from the countryside by economics, for the first time in history more than half the world's inhabitants live in cities. Please join us now, as we journey to four great cities of the world: Mexico City, Istanbul, Shanghai, and New York. Along the way we will explore a major dilemma of the 21st century -- how to shelter and sustain the world's exploding urban population without destroying the delicate balance of our environment.

Planet Earth -- this is where our journey of discovery begins.

[Series And Episode Titles]

(Mexico City)

Mexico City pulses with energy. It's an ancient gathering place layered with a rich history of indigenous and Spanish cultures -- a nation's capital where pilgrims come seeking miracles and offer prayers of gratitude. It's also a twenty-four hour a day, high octane city that never sleeps.

(Celebration)

Especially on September 15th -- the eve of Mexico's Independence Day. Close to a million people have gathered in Mexico City's main square to recite an historic two hundred year cry for freedom. "Long live liberty, long live justice, long live democracy," they shout. Lately, the people who live in Mexico City have little else to celebrate.

(Demonstrations)

Home to over 20 million citizens and growing by 350,000 each year -- living conditions are so serious that a 200 year old celebration in praise of liberty is often marked by angry demonstrations demanding environmental action.

Mariclaire Acosta Urquidi

In Mexico City it's a very important human rights issue. It has to do with how the city functions, and it's related to a lot of other human rights issues, such as how much the citizens of Mexico City can actually participate in making public policy and in solving a lot of the terrible, disastrous environmental issues that we have in the city. This is a city that has taken its environment to the verge of collapse.

How did this happen? How could such a proud and beautiful city become a metaphor for all that could go wrong with urban development?

(Computer Visualization)

Computer-generated models help visualize the city's fundamental problem. Mexico City is located in a valley a mile and half above sea level. Surrounded by a wall of mountains, some as high as 12,000 feet, it's locked into what scientists call a closed eco-system. Unlike most other mega-cities there is little wind to cleanse the air and no ocean or major river to exchange water and sewage.

The city's atmosphere is thick with smog -- a toxic soup cooking airborne chemicals into ozone. Eight out of ten days are declared hazardous to human health. Just breathing is said to be the equivalent of smoking two packs of cigarettes a day. Adding to the problem are 35,000 factories spewing tons of pollutants into the air.

(Cars)

But it's primarily the emissions from over three million cars that leave the city gasping for breath. Mexico City is trapped between the limitations of its geography and a way of life shaped by the internal combustion engine. Yet the city struggles toward a cleaner future. Thousands of repair shops cater to stricter exhaust regulations and increased auto inspections.

(rail system)

To encourage residents to use public transportation the rapid transit system has been greatly expanded. Unfortunately, city officials have been forced to use much of their limited resources to deal with a more serious crisis. In a city famous for its richly decorated fountains, Mexico City is running out of water.

(Old Painting & Aerials)

When the Aztecs founded the city, it was dotted with lakes and surrounded by a densely forested watershed. Today only a few groves of trees remain. The lakes are also gone -- drained by the Spanish to expand the city. In their place are 1400 square miles of asphalt and concrete -- and the remains of ancient aqueducts that once brought in water from nearby springs. But as the city's population grew, more water was needed.

(Rainstorm)

The brief rainy season offers little help and the nearest river is on the other side of the mountains. Though Mexico City sits on top of a vast aquifer it's in danger of running dry because 70 percent of the city's drinking water is pumped from the underground reservoir.

(Sinking city)

Angel Statue commemorates Mexico's Independence from Spain. Built in 1910, it's foundation was anchored deep beneath the surface of the street. Yet over the years twenty-three steps had to be added to its base. Incredibly, the land around the statue is sinking -- in fact, almost all of Mexico City is sinking.

As water continues to be consumed the aquifer loses volume -- causing the land that rests on top to slowly collapse. Much of Mexico City's center has sunk more than 30 feet in the last century and is sinking another one to three inches a year.

(Canals)

Compounding the problem are open canals cutting through the heart of the city. Each day, they carry billions of gallons of raw sewage. Spreading foul odors and disease, the waste water is pumped over the mountains -- away from the city.

(Foaming Canal)

The canal eventually spills into the Tula River. Along the way the water foams with phosphates and deadly bacteria -- poisoning everything in its path. Before the toxic waste reaches the Gulf of Mexico it makes a brief but lethal stop.

(Valley)

Sixty years ago the Mezquital Valley was an arid wasteland. Today it's a fertile oasis because farmers, desperate for water, use the city's untreated sewage to irrigate their crops.

Jenny Garcia Sanchez knows little about the water her parents use to irrigate their pastures. She is nine -- a good student -- and talks about becoming a doctor. If she gets her wish, business could be very brisk. Every few years the tainted water brings cholera to the valley. It's a deadly trade-off most of these farmers have reluctantly accepted.

(village)

A few miles away is the village of Santa Ana Ahuehuepan. Tainted irrigation water has contaminated the aquifer. Disease has taken its toll.

Pablo Garcia Gonsales is the community's leader. Several years ago he petitioned the local government to build a water purification plant. He's still waiting. Most of the younger people have already given up and moved on. There are very few opportunities in a town without clean drinking water. For those that stay -- their only hope is that Mexico City does something to ease the crisis.

(Tunnels)

Fifty miles away and six hundred feet below ground, construction crews are working to correct the problem. They are expanding Mexico City's network of deep drainage tunnels. When completed this underground passage will be filled with raw sewage. It's part of a massive construction project that will eventually eliminate all open sewage canals.

At the end of the tunnel a huge drill cuts through 20 feet of earth and rock each day. The project's long term goal is to treat the city's raw sewage before it ever reaches the Mezquital Valley.

(Lake)

Though only ten percent of the city's waste water now passes through new purification tanks, it's at least a start. An added benefit is that the treated water is used in another environmental effort -- the restoration of Lake Texcoco. Drained by the Spanish four hundred years ago, Mexico City's treated water is giving the dried-out lake bed a new life.

Laura Olvera

This restored lake is very important because it plays a major role in the way it affects climactic conditions here in Mexico City. It raises the humidity which helps to control the formation of massive dust storms that were once a major health problem.

Now a safe haven for local and migrating birds, the restored lake is strong evidence that much can be done to improve the city's quality of life.

(Xochimilco & Chinampas)

The Floating Gardens of Xochimilco are in the middle of Mexico City. It's a place to spend a few leisurely hours drifting on a network of ancient canals. But hidden from view -- away from all the musicians and all the vendors -- is a world rarely seen by outsiders.

This is what much of Mexico City looked like 600 years ago when it was founded on an island in the middle of a lake. Like their Aztec ancestors, farmers created land by piling mud along the shores. These man-made fields -- called Chinampas -- are highly productive because water seeps up through the mud and keeps the soil moist during the dry months.

The Chinampas are a delicate eco-system requiring the one commodity that Mexico City cannot spare -- fresh water. Over the years, a series of local springs were depleted and polluted water flowed into the canals.

The farmers of the Chinampas, led by Lucas Godoy, decided to do something about it. Their goal is to save some of the most productive land in the world -- where the soil is so fertile it can yield as many as ten harvests a year. Recently, Lucas convinced the authorities to allow a combination of fresh and treated water to flow back into these canals.

Lucas Godoy

We are direct descendants of the Aztecs and are very proud of our roots--they were a great culture and we want to maintain and defend this heritage. The Chinampas is our identity.

For the farmers who work these small plots of land -- their success reflects Mexico City's spirit of survival.

(El Capulin)

It's an attitude that can be found throughout the city -- particularly in a place called El Capulin -- a neighborhood that overlooks a stagnant pond filled with garbage and sewage. Yet it's a major success story.

At first the community had no roads, little drinking water and no provisions for handling waste. By working on their days off, the citizens have transformed El Capulin into a healthy and vital place to live. In Mexico City, people have learned to rely on one other to make things happen.

Every Sunday about 200 people attend a town meeting. The residents are considering the construction of a greenhouse that will provide jobs. Tonio Ramirez is keenly interested. Like many of the residents of El Capulin, Tonio earns a living selling flowers.

(Market)

On most mornings he visits a wholesale flower market. He makes his selections with care. Tonio can't afford to buy more than he can sell. He then finds a busy downtown street corner, preferably with a long traffic signal. Street vendors like Tonio are a common sight throughout Mexico City. They sell flowers - clowns perform -- homeless teenagers hawk newspapers -- some even spit fire. All to make a few pesos and survive another day.

(Celebration)

The lesson of Mexico city is simple. Despite all its history -- all its efforts -- the devastating consequences of uncontrolled growth serve as an environmental warning to the rest of the world -- especially to newly emerging mega-cities -- like Istanbul.

(Istanbul Waterfront)

A sophisticated waterfront city, rich with ethnic and religious diversity, this has always been one of the great metropolis's of the world.

(Map)

Istanbul's location is both unique and strategic. Built on the edge of two continents -- Asia and Europe -- throughout history this was a bridge between the Orient and the trading centers of Europe and the Middle East. Connecting the Black Sea to the Sea of Marmara is the Bosphorous strait -- a narrow fifteen mile waterway -- cutting through the heart of Istanbul.

(Aerials)

For more than a thousand years this was a center of the civilized world -- a capital of three great empires - Roman, Byzantine, and Ottoman.

(Church & Mosque)

The streets of Turkey's largest city still reflect much of its early splendor. The Haghia Sophia was a 6th-century Christian basilica. This was the world's largest domed structure until the building of St. Peter's Cathedral in Rome. The nearby Blue Mosque is a crowning glory of Islamic architecture. In a country that is ninety-nine percent Muslim, this is one of the nation's most important places of worship.

Istanbul is an ancient city racing into a new century -- saddled with all the contradictions of a modern metropolis. For centuries its citizens have been asking themselves where they truly belong -- East or West? Muslim traditions or a secular lifestyle? Now they must ponder the consequences of Istanbul's recent transformation from a city of a million and half to an uncontrolled and sprawling mega-city.

Laurence Mee

Istanbul is a city of something like 15 million people, though nobody really knows the precise size of it, and bringing so many people together in such a small space obviously brings a lot of environmental problems with it. In many ways, you can consider Istanbul to be a city on the edge.

(Studio)

Renowned photographer Ara Guler has documented life in Istanbul for the past 50 years. He struggles with the changing face of the city.

Ara Guler

This is my country and Istanbul is my city. I born here, and my house is somewhere here. But now I am looking all my old pictures because I am now 68 years old.

(Photographs)

This is the Istanbul Ara longs for -- portraits of his beloved city -- glimpses of places that may no longer exist.

(Streets)

Each day Ara leaves his studio searching for a familiar face or an old image hidden in the new Istanbul. But when he focuses his camera, all he sees is change.

Ara Guler

My city has disappeared. It's the people and the faces change. Clothes change.

Yet he never stops searching for new images in a city that's verging on the edge of chaos.

(Bus Station)

Istanbul's newest residents are those who flee rural poverty and violence. Many are from Turkey's wartorn Kurdish region. Drawn to the safety and booming economy of Istanbul, they arrive at the rate of over 1,400 every day, 43,000 every month, more than half a million hungry and impoverished people every year.

(Cars)

With little room left in the old city, people are crowding into Istanbul's unspoiled areas -- igniting a battle between those who need housing and those who want to preserve the city's remaining green spaces.

Nergus Yazgan

Here behind me you see a typical view of the Istanbul forests--very nice--mixed forests which cover 45 percent of Istanbul's total surface area, which is quite a big amount for a lot of cities who don't have much green space. But, this green space is very, very threatened. We are very worried about its future. And that's why we put up a fight.

The most dramatic example of greenspace loss is along the Bosphorous. Until a few years ago this 17th century Ottoman palace was surrounded by a healthy habitat for plants and animals. Today, it's been invaded by urban sprawl. A nearby forest has been completely destroyed and replaced by a huge housing project. Most of its development was illegal.

These immigrant settlements called gecekondus — the translation is "built overnight" — are actually sturdy structures that the government eventually legitimizes. Illegal housing is the quickest and easiest way to shelter an exploding population.

(Water Montage)

As new arrivals pour into the city, its water supply begins to suffer. This is not the first time Istanbul's water fell victim to human pressures.

During the sixth century, Romans built huge underground reservoirs -- for times of drought or enemy attack. These highly decorated cisterns sustained Istanbul for centuries. Then about 400 years ago the city's population rose sharply. These subterranean chambers were no longer adequate -- plunging Istanbul into a serious water crisis.

To ease the city's thirst nearly 35 miles of aqueducts were built -- connecting Istanbul to rural reservoirs and natural springs.

Just outside of Istanbul, Ottoman engineers constructed the Kirazli dam. It's changed very little over time and the surrounding watershed is still productive and unpolluted. But reservoirs within Istanbul are surrounded by illegal settlements. Inadequate sewage facilities threaten Istanbul's drinking water. The impact of mass migration on the city's infrastructure is enormous.

(Docks)

Just ask those who work the waters of the Bosphoros. This is an industry that's always supported generations of families. Today they face a grim future. Like the farmers of Mexico's Mezquital Valley, these fishermen are suffering the consequences of a city that can't handle the sewage it generates.

(Waterfront)

Istanbul treats less than 50% of its waste water. The rest is pumped into what was once one of the world's most productive fisheries. Into the waters where Mehmet Ozturk has fished for almost twenty years.

He was 18 when his father taught him the trade. Mehmet always dreamed that one day his son would join him. That was when this fishery was among the world's most productive. Today his catch is meager -- a family tradition is about to disappear. On most days Mehmet can't help noticing that he's surrounded by an even graver danger.

Laurence Mee

The Bosporous is a channel only 700 meters wide at its narrowest, and some 70 meters deep, and it's one of the world's major shipping channels. So here we have a huge city, absolutely bubbling with people, and a major shipping channel going right through the middle of it.

Each day 150 freighters -- some filled with nuclear waste and highly flammable cargo -- must share this narrow waterway with fifteen hundred ferries and fishing boats. Simply put, the Bosporous is a ticking time-bomb.

There have already been a series of fatal tanker disasters. Where once the threat of invading armies haunted Istanbul, residents now fear oil and fire could destroy their city. Fortunately, there are still some who dream of what their city can be.

(Poverty)

Ten years ago the community of Esenyurt was an economic and environmental nightmare -- a barren landscape inhabited by the city's poorest immigrants.

Gurbuz Capan

When I was elected Mayor of the Esenyurt municipality the population was about 50,000. There were no roads, no water, no electricity, no sewage system.

Life was particularly difficult for women. In Esenyurt only 7% held a job. It was unheard of for a woman to own property. After his election -- the new mayor brought dramatic change. It's had a profound effect on women. He decided to build a new community -- from the ground up.

Gurbuz Capan

We pursued a contemporary approach to city planning by building hospitals, schools, pedestrian ways, bicycle paths, and day care centers.

It soon became one of Istanbul's most successful housing developments -- and it was legal. For the women of Esenyurt the benefits were enormous. It gave Ayse Savas the freedom to start a career. With a \$350 loan from a community foundation she opened a cafe. It changed her life. She now owns her own business and has already paid-off her loan. Ayse's success and that of her community shows that there are ways for cities to face new challenges.

(Ara)

Hope can also be found in the kinds of images Ara Guler searches for, images of a people open to new ideas and new ways of adapting to change. These are images of a people seeking answers -- answers that just may come from a city 5,000 miles away.

(Shanghai)

Though some have called Shanghai the city of the new millennium, there are moments when Shanghai seems caught between two worlds -- especially in the early morning hours along the city's famous waterfront promenade. Yet, it was here -- besides the Huangpu River -- that China's richest and most important industrial city first showed signs of economic greatness. It wasn't all that long ago -- about 150 years. That's when foreign interests transformed a sleepy fishing village into a thriving colonial trading center.

(Archival)

By the 1920s Shanghai was the commercial capital of Asia. Called the Jewel of the Orient, it was also a city famous for its bawdiness and European flair. Then came the horrors of World War II. Invaded and ultimately occupied by the Japanese -- Shanghai suffered enormously.

After the war, Chinese Nationalists took control of the city. Four years later Mao's communist forces liberated Shanghai -- but living conditions worsened. The new regime was determined to make the city pay for its long history of capitalism and decadence.

In the early 70's, during the extremes of the cultural revolution, Shanghai's most educated citizens were sent to rural work camps -- to be re-educated. Many never returned.

(Waterfront)

Today Shanghai has literally re-emerged from these earlier upheavals. It's once again an international port of call. Just across the river is the futuristic skyline of the city's newest neighborhood -- Pudong. Home to thousands of multi-national corporations -- they have located here for only one reason. Shanghai is destined to become the financial center of China -- if not all of Asia.

(Crowds)

The result is a city crowded with people. In less than a decade 13 million people have been joined by nearly 3 million farmers from the poorer countryside. Some seek prosperity by selling food in the local markets. Ni Xia and her family arrived four years ago. Xia is 21. Her mother hopes to earn enough to give her daughter an advanced education. She would be the first in her family to go to college.

(Construction)

Others seek economic opportunities in one of the 20,000 construction sites in Shanghai. These workers were once rice farmers from the northern provinces. Today, they share a common dream of earning enough to shop on Nanjing Road -- the city's most elegant thoroughfare.

(Shopping)

Each day over a million people pack its sidewalks. Increased wealth has made Shanghai a Mecca of materialism. In a city of mostly non-Christians, Christmas has been embraced as a symbolic way to cast off 50 years of austerity. Even though the city's booming economy never seems to let up, Shanghai must face the same reality as Istanbul and Mexico City -- rapid growth and uncontrolled development often generate major environmental problems.

Most mornings smog hangs low over Shanghai's imposing skyline. It's the result of burning low-grade coal used as the primary fuel for cooking, heating and running factories. Lately, the air is becoming even more polluted as bicycles are replaced by automobiles and buses. To ease the problem there are limitations on the ownership of cars and stricter air quality regulations for factories. Shanghai's authorities are also learning from other mega-cities.

Fang Song Chuan

All the people from the city officer to the normal citizen, they're aware about the environmental issues. They are always talking about having clean air, clean water.

(Subway & Roads)

The city is slowly rebuilding its infrastructure -- starting with a public transportation network. At its heart is a new subway system. Above ground, new highways ease traffic congestion as well as link Shanghai with surrounding industrial and bedroom communities. But like all cities -- Shanghai has major issues with water and sewage.

(Creek)

Suzhou Creek is an ancient canal cutting through the heart of Shanghai. Each day thousands of barges carry food and construction materials in and out of the city. It has also become a sewer -- receiving much of Shanghai's untreated wastewater. Compounding the problem are massive amounts of pollution coming from solid waste collection sites and factories flanking the waterway. Conditions like these can not sustain a city in the midst of an economic boom.

(Tunnels)

As in Mexico City, construction workers are building a series of huge tunnels that will collect Shanghai's wastewater. Instead of sending it to places similar to the Mezquital Valley or the Bosphorous Strait, the water will be treated and flushed out to sea.

(Plant)

Shanghai is also improving the quality of its drinking water. The city's first water treatment plant became operational more than a century ago. It has always drawn Shanghai's drinking water from the Huangpu River. Today the facility can no longer handle the mounting levels of pollutants in the river.

(Huangpu River)

Twenty miles upstream from Shanghai -- where the Huangpu is less affected by industrial waste, the government remedied the problem by building a new water intake and pumping plant. But as the city continues to grow, it's having a major impact on the surrounding countryside.

(Countryside)

Some of China's most fertile farmland is giving way to factories. Rural waterways and acquifers are becoming contaminated with industrial pollution. Perhaps the most dramatic impact of Shanghai's affect on the countryside is in the nearby city of Suzhou.

(Suzhou)

This is a place famed for its ancient gardens. For thousands of years Suzhou adhered to a more traditional, more spiritual way of life. It's a city that cherishes its ancient system of canals.

(Visualization)

But Shanghai's rapid growth hasn't come without a price. In this 10 year old satellite image of rural villages near Suzhou, green indicates agricultural activity. In a recent photograph the pink areas indicate urban development and the dramatic loss of farmland.

Today officials in Suzhou are struggling to preserve its historic district. They have imposed height restrictions on buildings and closed some streets to motorized vehicles. But it may be too late as Shanghai's industrial sprawl begins to envelop Suzhou.

(Old Shanghai)

In Shanghai almost all greenspaces have disappeared. Apartments are at a premium -- millions share cramped and inadequate quarters. For many, the streets are their living rooms -- the sidewalks -- their work spaces. In just two decades Shanghai will be a city of over 20 million people. To control population the government is trying to enforce a one child per family policy.

(Children)

In response, the people of Shanghai provide their youngest generation with a strong sense of culture and history. Their hope is that these young people will develop their own vision to deal with the city's environmental needs in the years to come.

(New York)

The same sort of vision New Yorkers clearly demonstrated more than a century ago. It was a time when great waves of immigrants came to the United States -- many fleeing from religious or political unrest. Most came in search of economic opportunities. As the city's population surged, it was forced to deal with growing water, sewage and rapid transit needs. By the 1930s New York's population was 7 million and overtook London as the world's largest city.

Janice Perlman

New York City has a lot of advantages because it is a city that had its main growth period much longer ago and has a set infrastructure, not only a physical infrastructure, but a governmental infrastructure, and social infrastructure that can deal in some ways a lot better with its growth.

(Aerials)

From the air New York is like no other place on Earth. Ringed by water and built of steel, this is a megacity that works. For the 20 million people who live in or around New York -- with a few exceptions -- water and air quality are relatively high and all of its sewage is treated before leaving the city.

Robert Kennedy, Jr.

Essentially what you want to do is you want to allow the cities to grow upwards and to flourish but not to grow outwards. And you don't want people leaving the cities, you want people flocking to them and living there, because the cities can handle waste much more efficiently, they can use water more efficiently, they can use natural resource more efficiently than any other social development organism.

Above all, New York is still a beacon for those seeking a new life -- a city where more than half its population are foreign born or are the children of immigrants.

Jimmy Breslin

What works in the city is a Mexican crossing the Rio Grande River someplace, going into Texas, and then getting a bus to New York City to start working. The bravery, the vision that takes for a young kid to come up here and start out life as a busboy in a coffee shop is the very thing that made the city. How can we lose with that type of sizzling energy coming into a city?

(Bronx)

The energy that makes New York work can be found in ethnic neighborhoods like the South Bronx. Once a community of Irish, Italian, and Jewish immigrants, today it's still a thriving neighborhood, but now it's a place where Spanish is the first language.

Not very long ago the South Bronx was a metaphor for environmental and urban blight. Industrial pollution plagued the community. Buildings were condemned, dreams shattered. Confused and angry -- for some arson was a response.

Joe Hall

This community here, in the '70s and '80s, experienced, on average, over a seven-year period an average of five fires per evening. In fact, people growing up here often spoke of coming home from school and hearing fire engines, and sirens, and not ever quite knowing, is this my house that's burning this time? That image remains burned sort of in people's minds about this is what the South Bronx represents.

Eventually the city gave the neighborhood back to its residents and they started to rebuild their homes.

Joe Hall

For example, over here, you'll have the 811-827 Co-ops. And these are what we call "sweat equity," where the people who lived in these co-ops back in the early '80s began to actually rebuild them themselves. Their sweat, or their time, into this property is their equity. And so today the community organizes itself through a special program that allows people to really live out their own American dream.

(Harlem)

The American dream -- for the densely populated community of West Harlem it is a concept that at times has little meaning. Each day its residents struggle with serious environmental abuses. Their street art reflects the depths of their frustration.

From the air it's hard to distinguish between affluent neighborhoods and those in need. Except over Harlem. Lush parkland is visible along much of the city's shoreline. When the greenspace ends -- Harlem begins.

Along the city's most elegant street -- Park Avenue -- a subway line is hidden deep underground. But when it reaches Harlem it suddenly comes roaring into view. Though the issue of lost greenspace is serious, it pales when compared to Harlem's major problem -- the community is haunted by a serious health problem.

Peggy Shepard

I'm standing on a corner in Harlem which is one of the most polluted areas in New York City. Harlem is one of the four neighborhoods in northern Manhattan which is home to six of Manhattan's seven bus depots. The important thing to know is that the buses run on diesel fuel, and diesel fuel emits very small particles easily breathed into your lungs and very hard to expel.

This contributes to a virtual epidemic of asthma in Harlem. With an incidence triple the New York City average, the community has been called a public health disaster. Recently, wastewater and sewage treatment plants were constructed along the Hudson River. Though originally planned for a downtown neighborhood -- when its affluent citizens complained -- the plants were built in Harlem.

Peggy Shepard

When we look at the sitings of bus depots, sewage treatment plants, and all of the other polluting facilities we have in the northern Manhattan community, we realize that we have been targeted for environmental injustice because they are predominantly poor, they predominantly house people of color, because we are less influential politically.

But thanks to the efforts of community leaders like Peggy Shepard, health conditions are slowly improving. A plan to expand the city's waste facilities in Harlem was stopped -- as the community continues to fight for environmental equality.

(Brooklyn)

Across the East River in the borough of Brooklyn, an environmental turn-around has already taken place - in a modest neighborhood called Carroll Gardens. Here elderly immigrants still cling to the ways of their European heritage.

Buddy Scotto

The neighborhood for the most part is made up of Italian-American immigrants. The process was you'd move up the economic, social, educational ladder and then retreat to the suburbs. That was the experience the poor Irish immigrant went through, and the Italians followed the Irish immigrant into this part of town. But in the '60s and the early '70s, a group of us decided that we were gonna change that social pattern. And why did people have to leave? Why did they think they had to leave to get out to the suburbs?

The major problem was a waterway running through the heart of Carroll Gardens. Since the 1860s the Gowanus Canal provided passage for barges. It was a lifeline for the city's expanding economy. But over the years the canal outlived its usefulness. Its waters became polluted. Suspecting that this could be a health threat, in the early 80's the neighborhood demanded that the canal's water be analyzed.

Buddy Scotto

I'm almost reluctant to say because it was so bad, but they identified typhus, typhoid, and a virulent strain of cholera, and once that word got out to our elected officials, we finally got motion, and that meant a \$458 million application to build the Red Hook Sewage Treatment Plant which has been on flow since December of 1989.

As word spread about the clean-up, Carroll Gardens began to change.

Buddy Scotto

There are 250,000 people within walking distance of this canal. The commercial potential is immense. Shops, restaurants, coffee houses, housing, public use, walking by the canal, we're on our way to seeing a difference.

Today new waves of immigrants are moving in -- young professionals from middle America -- drawn to the community because of the promise of a waterfront promenade and the warmth of it's old world charm.

(Closing Montage)

In the end the people of Carroll Gardens -- the people of New York City -- are no different from those in Mexico City, Istanbul, and Shanghai. The quality of their lives is controlled by their ability to cope with change.

By the year 2020 over 60% of humanity will live in urban centers. Fortunately, we are now beginning to understand how cities work as unified systems.

Robert Kennedy, Jr.

We have the natural resources to feed those people, we have the air for them to breathe, and we have enough water for them to drink if they can live efficiently. And the only way to do that is to make cities that work.

We are also recognizing that those who live in cities have the right to basic necessities like clean air and water.

Mariclaire Acosta Urquidi

It is what is called a human rights issue of the fourth generation. It's the right to sustainability.

Though the challenge of balancing economic growth with the health of a city can be a difficult struggle -- no one questions that it must be done.

Janice Perlman

They come from the towns and small villages to get better education for their kids, to get better job opportunities, and to have more options, more choices.

Despite all their problems, the extraordinary thing about cities is that they remain places of learning, where opinions and ideas can be exchanged.

Laurence Mee

These are all aspects of a healthy city. A city with those elements can survive, and can be sustainable.

For the people who live in cities -- who are drawn to the promise of a more rewarding life -- they all share a common bond -- a bond that is renewed by the birth of each new generation -- bringing new ideas -- new attitudes -- new visions for the future.

Planet Earth. This is our home -- this is where our journey of discovery must begin.

[Tail Titles]

#########