



MORE JOBS
LESS WASTE
COMMUNITY RESOURCE GUIDE

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About this guide

The purpose of this guide is to be an **educational resource** for communities to use as a playbook to transition from a **“take, make, waste”** linear model into one that uses **waste as an opportunity** in a more circular model.

Throughout our fellowship, we discovered that many individuals were struggling with educational and awareness materials on **waste disposal, recycling guidelines, and the principles of reusing.**

As we explored this issue, we found common ground in the concept of composting food scraps, which became the guiding thread woven into the fabric of our project.

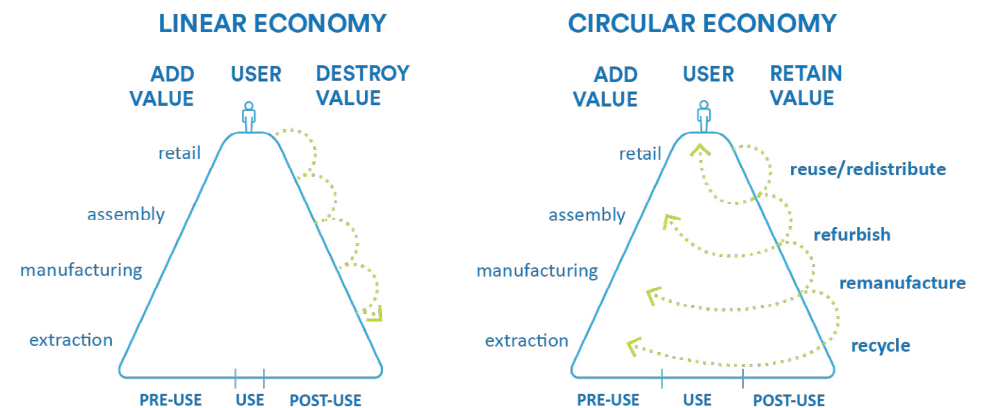
Please feel free to use the guide in your neighborhood and share it with others, and create and promote **circular economies.**

What is a circular economy?

The Ellen MacArthur Foundation defines a circular economy as **an industrial system that is restorative or regenerative by design.**

“In our current economy, we take materials from the Earth, make products from them, and eventually throw them away as waste – the process is linear. In a circular economy, we stop waste being produced in the first place.”¹

The Circular Economy is an essential economic transition from the dominant “take, make, waste” model of production.



Value Hill Diagram

Why is a circular economy important?²



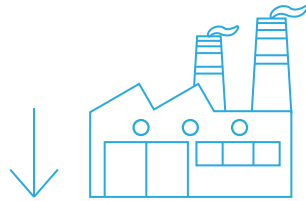
1.5 EARTHS

We use **100 billion tons of resources** each year and **only 8.6% gets reused or recycled**. And if we don't make a change, global resource use may double by 2050. We would **need 1.5 Earths** to support that!



GOOD FOR ALL!

A circular economy isn't just good for the planet, it's also **good for people, for the health of our land, water and wildlife**, by relying less on both for dwindling natural resources and preventing waste from littering natural habitats.



39% OF EMISSIONS

Advancing a circular economy can fight climate change by reducing waste, and **lowering global greenhouse gas emissions by 39%**!



6M NEW JOBS

New focus on **reusing, repairing, and remanufacturing our goods** can **boost economic opportunity** and create new jobs. It's estimated that we can **create 6 million new jobs across the globe by 2030** by transitioning to a circular economy.



Circularity can benefit every industry, many in which NYC is a global leader and poised to drive big impact.

FOOD



1/3
~20%

of NYC's waste – **24M lbs daily**

of food emissions (6% overall) due to **food transport**

Current efforts are primarily community driven (i.e. BK Rot), but **need scale**

FASHION



200K
20K

tons of waste / year in NYC

students/year educated by NYC's fashion institution

Raw material production for cotton and leather is increasingly **expensive and scarce**

CONSTRUCTION



40%
1/2

of NYC's **solid waste** stream is C&D

of **natural resource extraction** globally

NYC has one of the highest number of buildings per sq ft, **many of which will need retrofits**



What does food have to do with it?

Food waste is a big contributor to climate change. **26% of global emissions³**, that's nearly a quarter!

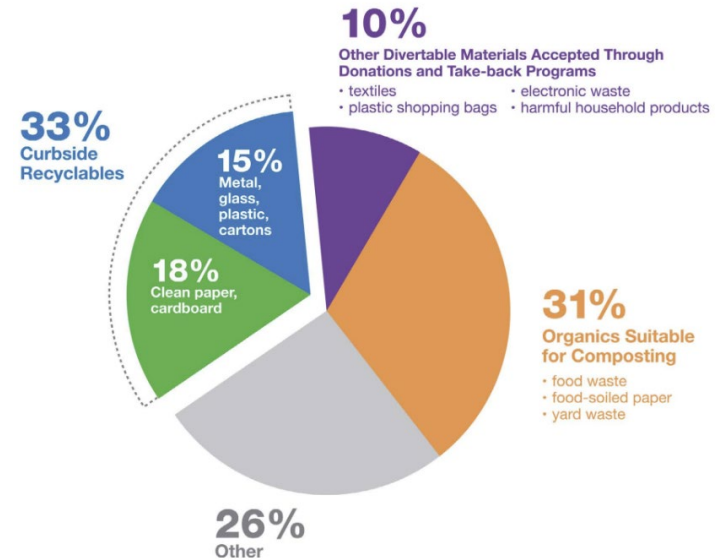
It also has a big impact on our ability to feed people. Nearly **1/3 of all food produced is wasted**, while nearly **10% of the world goes hungry⁴**.

How can this impact New York City and local communities?

1/3 of what's thrown away in NYC is food and yard waste⁵ – that's **24 million lbs daily**.

NYC already has resources in place to promote a circular economy and a more sustainable food system, but it needs scale to drive big impact.

This circular economy for food can only happen through the people on the ground as well as the jobs they have.



How can we build a circular economy for food?⁶

1 Eliminate waste in the first place

- Preventing our food from going to waste is an important first step in advancing a circular economy for food.
- Distributing our food more efficiently to people who need it most.
- Preserving our natural resources with a commitment to use our land to grow biodiverse foods.

NYC ORGANIZATIONS include but are not limited to:

Cafeteria Culture works with NYC's youth to promote zero waste schools and a plastic free biosphere. It provides education and leadership training to NYC students K-12 across a variety of efforts that promote a circular economy, including food waste.

Zero-waste restaurants in NYC, including **Rhodora** in Brooklyn, prevent food waste by focusing on how they order, prepare, and, as a last resort, send unfinished food to composters.



2 Circulate food and materials

- Rescuing food, particularly within local communities, to prevent waste.
- When food can't be rescued, making use of food to make new products – like compost, animal feed, and energy through anaerobic digestion.

NYC EFFORTS include but are not limited to:

City Harvest is NYC's largest food rescue organization, rescuing 75 million lbs of food each year and delivering to food pantries, soup kitchens, and local community organizations across the 5 boroughs.

Rescuing Leftover Cuisine was founded in NYC in 2013 and conducts food rescue and distribution for 8 regions across the U.S. and has rescued 7M lbs of food since its inception.

Food Bank for NYC is critical to NYC's food rescue efforts, distributing enough food for 62.5 million meals each year to 1,000+ charities across the city.

donateNYC is a City-funded platform to connect those looking to donate food and other products to people across the City who may need them. Food partners include the organizations listed above, as well as **Rethink Food.**



3

Regenerate Nature

- Using compost, a byproduct of repurposed food, to maintain soil health, promote growth of new, healthy foods.

NYC EFFORTS include but are not limited to:

Microhaulers across the 5 boroughs, like **Compost Power** (citywide), **BK Rot** (Brooklyn), and **GreenFeen OrganiX** (Upper Manhattan and the Bronx)

Local urban agriculture farms, including:

Brooklyn

East New York Farms (East New York)
 Brooklyn Grange (across Brooklyn and in LIC, Queens)
 Oko Farms (Bushwick)
 Red Hook Farms (Red Hook)
 Eagle Street Rooftop Farm (Greenpoint)

Manhattan

Harlem Grown (Harlem)
 Battery Urban Farm (lower Manhattan)

The Bronx

Third Avenue Farm (South Bronx)
 To be added!

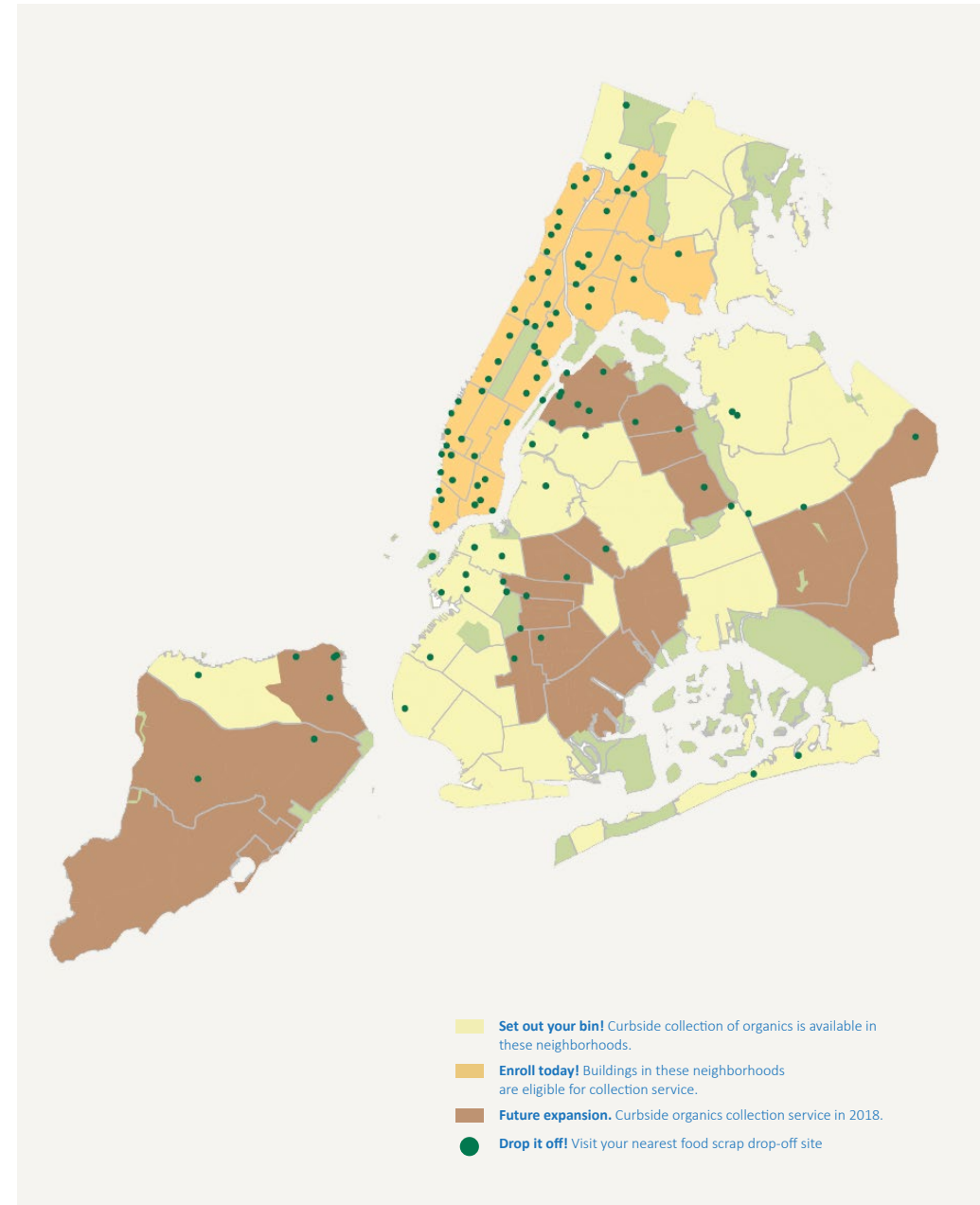
Staten Island

Rabbit's Garden (Stapleton)
 Snug Harbor Heritage Farm (Snug Harbor)
 Plus many **others!**

Local community gardens, including:

Phoenix Community Garden (Brownsville)
 Green Bronx Machine (South Bronx)
 GrowNYC Teaching Garden at Governor's Island (Governor's Island)
 La Finca del Sur Community Garden (South Bronx)

A **City-led effort** to create the largest compost collection program in the U.S. by providing curbside compost collection services to every New Yorker across all 5 boroughs.



Graphic taken from DSNY 2017 NYC Organics Expansion Map

What opportunities can this create for you and other New Yorkers?

While promoting a circular economy is critical to tackling climate change, it can also create **green jobs**⁷ for you!



Food

- City Farmer
- Food Coop / CSA
- Greenmarket Staff
- Specialty Producer
- Beekeeper
- Healthy Café Chef or Staff Caterer
- Cookbook Author
- Organic Campaigner
- Food Bank Operator
- Nutritionist



Nature

- Gardener
- Dog Walker
- Animal Rescuer
- Parks and Rec Staff
- Backyard Habitat Specialist
- Green Roof Installer
- NY Botanical Gardens and Zoos
- Marine Biologist



Waste Reduction

- Secondhand Store Staff
- Reclaiming building elements
- Recycler/scrap dealer
- Green Housekeeper
- Furniture reupholstering
- Antique Dealer
- Master Composter
- Repair person
- Recycle product manufacturing



Introduction

In order to start unpacking the challenges brought up by waste management and the circular economy we had to start broad in our research and stakeholder engagement in order to properly understand the breadth and depth of the system at hand. Whether that was from the Ellen MacArthur Foundation to learn fundamentals about the circular economy to experts in textile waste and reuse at Accelerating Circularity, to food rescue with City Harvest, and achieving zero waste in schools with Cafeteria Culture. What we learned from these stakeholders is the importance of the people within the system, how to uplift and bring dignity to the work and how educational awareness is vital to highlight and connect these people.

Once we had base understanding of the larger system, we got narrow and specific knowing that a circular economy can and should happen hyper locally and within a community.

We first engaged with Tiera Mack, the executive director of Pitkin Bid at Brownsville. Through her connection, we conducted site visits, ride alongs and interviews in the community itself such as with the street cleaning team at Pitkin Bid as well as the Brownsville Collaborative Middle School for Agriculture & Technology, who have both a Community Fridge and Hydroponic Gardening Curriculum. We connected with Domingo at Compost Power, an existing compost site at Howard Houses at Brownsville.



“Food scraps stories”



Tiera Mack

Pitkin BID Clean Team

“Commercial carting will affect our businesses.”

Tiera told us that businesses in Brownsville are looking for solutions to the commercial composting regulations coming soon.



Pedro Aponte

Pitkin BID Clean Team

“Clean streets are safe streets.”

We learned from Pedro, longtime Brownsville resident and five days a week street steward employed by the Pitkin BID, that the relationship between clean streets and thriving communities is an important one.



Domingo Morales

Founder, Compost Power

“I started off just having a job and now I’m creating jobs.”

Domingo envisions a hyperlocal solution for processing food scraps where every New Yorker is able to benefit from a circular food economy within his/her/them neighborhood.

What we learned

“Through this process, we came away with a lot of valuable insight and were able to identify several key factors:

- **Waste is a resource:** There is a real opportunity to leverage communal waste streams into a valuable commodity that benefits residents and small businesses within their communities.
- **Existing infrastructure isn't getting its due credit:** there is a coalition of the willing that have created key roles for people to have a hand in how their community mitigates waste streams. While they've exhibited how “the smaller the loop the more sustainable the loop” can be an achievable economic model, they're not getting the attention they deserve.
- **There is an opportunity for educating the youth:** By teaching about and encouraging involvement in organizations like Compost Power and Green City Force, we can ensure that, for the present, a deeper understanding and hard skill can be fostered, ultimately playing a pivotal role in shaping their community's future.

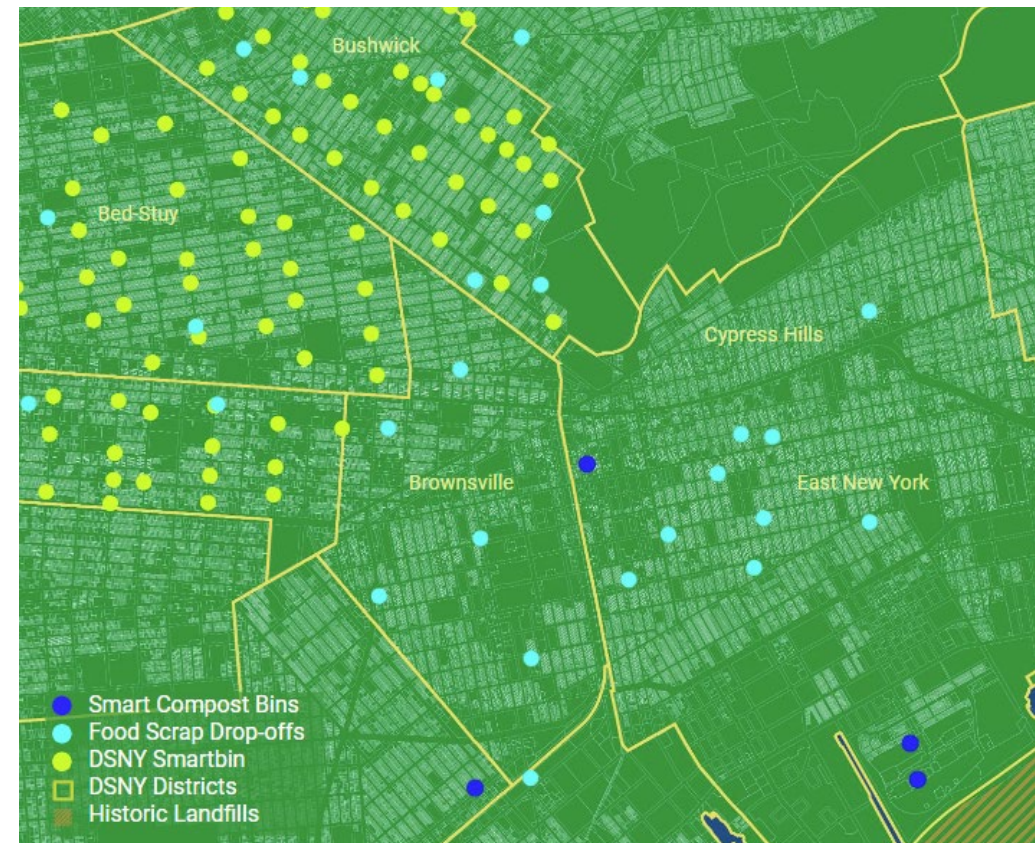
Having identified these key factors, our group came away with the goal of producing educational material that, by way of storytelling, would depict real life examples of jobs within the circular system.”

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The strong advocacy of **Tiera Mack** of the **Pitkin Avenue BID** was our guide into developing a **Brownsville educational material pilot program**, envisioned by **community stakeholders**, which connects the efforts of existing roles in Brownsville to **build a New Loop for food waste**.

We are using storytelling in the shape of a pocket-size zine to:

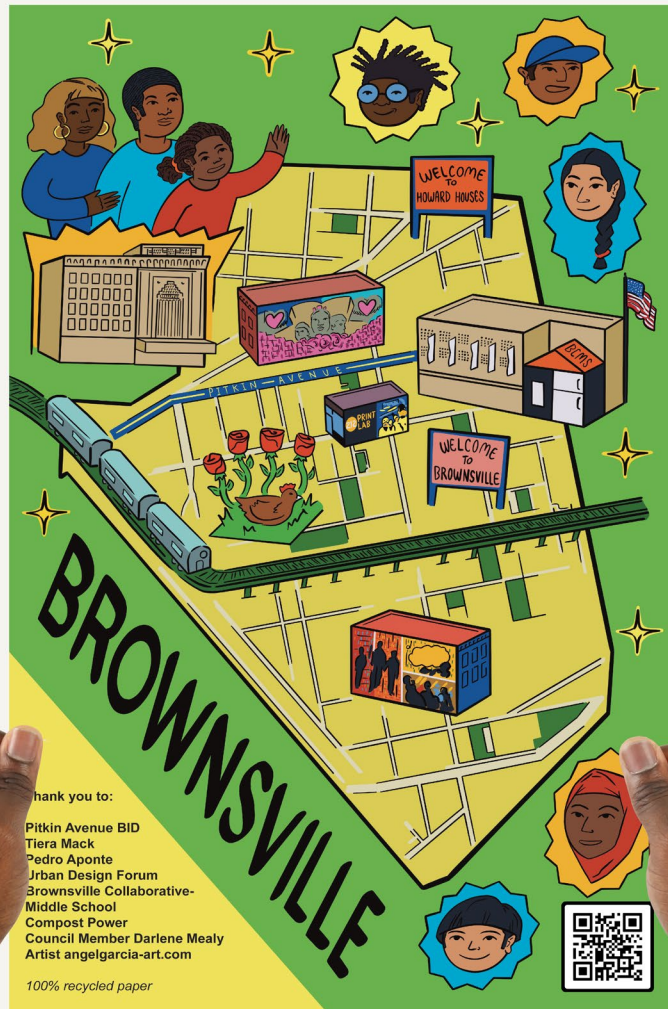
- 1) Shine a light on waste-reduction jobs
- 2) Encourage people to join in a more circular future, all from the comfort of your neighborhood –We believe in a future where all jobs are green jobs and we want youth to have these role models more present. We hope our readers get inspired by the heroes in the zine, who also exist in real life, and can be spotted in their own neighborhood.
- 3) Show that access to waste infrastructure is not equitable and top-down rollouts ignore the innovations already happening in these neighborhoods.



Waste Infrastructure Map

Waste to Wealth

“A circular vision” for Brownsville



The Waste to Wealth, educational zine, showcases the **existing and future jobs** involved in a **closed loop** for **local composting in Brownsville**. The Zine is based on **Tiera’s circular vision** for the **Pitkin Avenue BID** and the multiple local heroes implementing her vision.

The Zine starts introducing Tiera’s vision for a **commercial compost program** and its potential benefits. In such a program, **businesses** on Pitkin Avenue would **separate their food scraps** for pickup. And Pedro, from the Clean Team, would grow his current role in street cleaning to collect these food scraps.



After food scraps are being collected from Brownsville businesses and local schools, they are then brought to a **local compost** site where Domingo and Akeela turn this, otherwise **waste into nutrient rich soil**, also called **Black Gold**. **Anyone** in the community **can drop off their scraps** directly to the compost site too.

The **nutrient rich soil** helps **food to grow closing that loop** and **feeding the community**. The **Brownsville Collaborative Middle School** also takes a big part in closing the loop by **teaching kids** about **composting, hydroponics, and sharing food before going to waste in their community fridge**. Each job is key to the cycle, including residents' job of separating food scraps. In waste, if you are not part of the cycle you are part of the problem.

Brownsville is an **example of a community** that **can close the loop and create a local circular economy** through the **opportunity created by food waste**. We envision the zine to be promoted in different community facilities like libraries, community centers, community gardens, storefronts, schools to name a few.

How to help?

- 1 Take action now and transform your neighborhood BIDS into organic waste diversion hubs! Discover the power of creative and personal visualization tools in combating food waste. Join us in making a sustainable impact. Read more at what is happening in NYC: <https://www.nytimes.com/2023/06/08/nyregion/food-composting-nyc.html>
- 2 Calling all eco-conscious individuals! Unleash your creativity and support organic waste diversion in neighborhood BIDS. Learn about visualization tools such as zines that are empowering communities to tackle food waste head-on.
- 3 Let's transform organic waste diversion in neighborhood BIDS together! Embrace the power of zines as a visual aid to simplify composting instructions and eliminate confusion. Join the movement towards effective and engaging communication in sustainability.
- 4 Calling all community leaders and sustainability enthusiasts! Discover the potential of zines as a creative visualization tool to streamline composting in neighborhood BIDS. Unleash your creativity and make composting accessible to everyone with clear and concise messaging.



Sources

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5 <https://www.nyc.gov/assets/dsny/site/services/food-scrap-and-yard-waste-page>

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7 https://www.greenmap.org/greenhouse/files/NYC_Green_Jobs_2012slideshow.pdf

NYC'S FUTURE
IS **CIRCULAR**