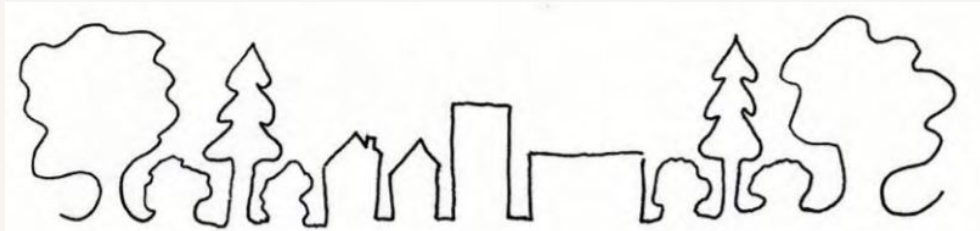


ROCKLAND P.L.U.S

PLANNING LAND USE WITH STUDENTS



How can we build sustainability into community planning?



A Rockland County Program for High School Students
Culminating in a Symposium with Community Professionals

Rockland P.L.U.S. 2021 is a collaborative partnership



1. Keep Rockland Beautiful
2. Lamont-Doherty Earth Observatory of Columbia University
3. Rockland Conservation & Service Corps
4. Rockland County Soil & Water Conservation District

Special thanks to our sponsors!

**Old York
Foundation**



Rockland Municipal Planning
Federation



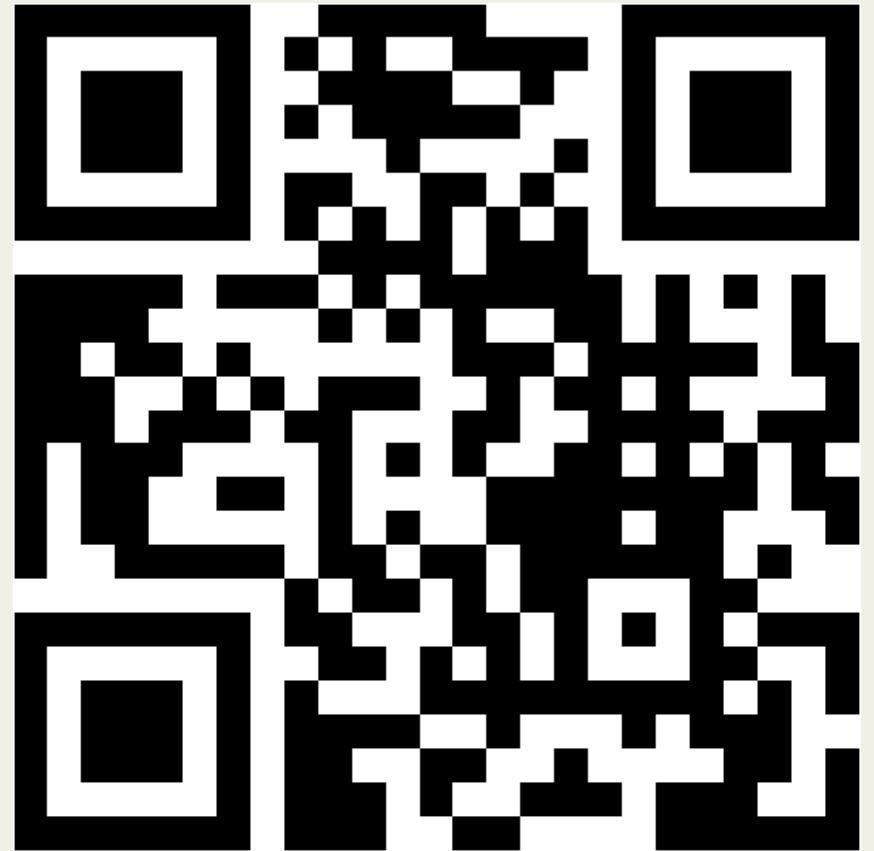
Mentimeter

What defines happiness?

Rules:

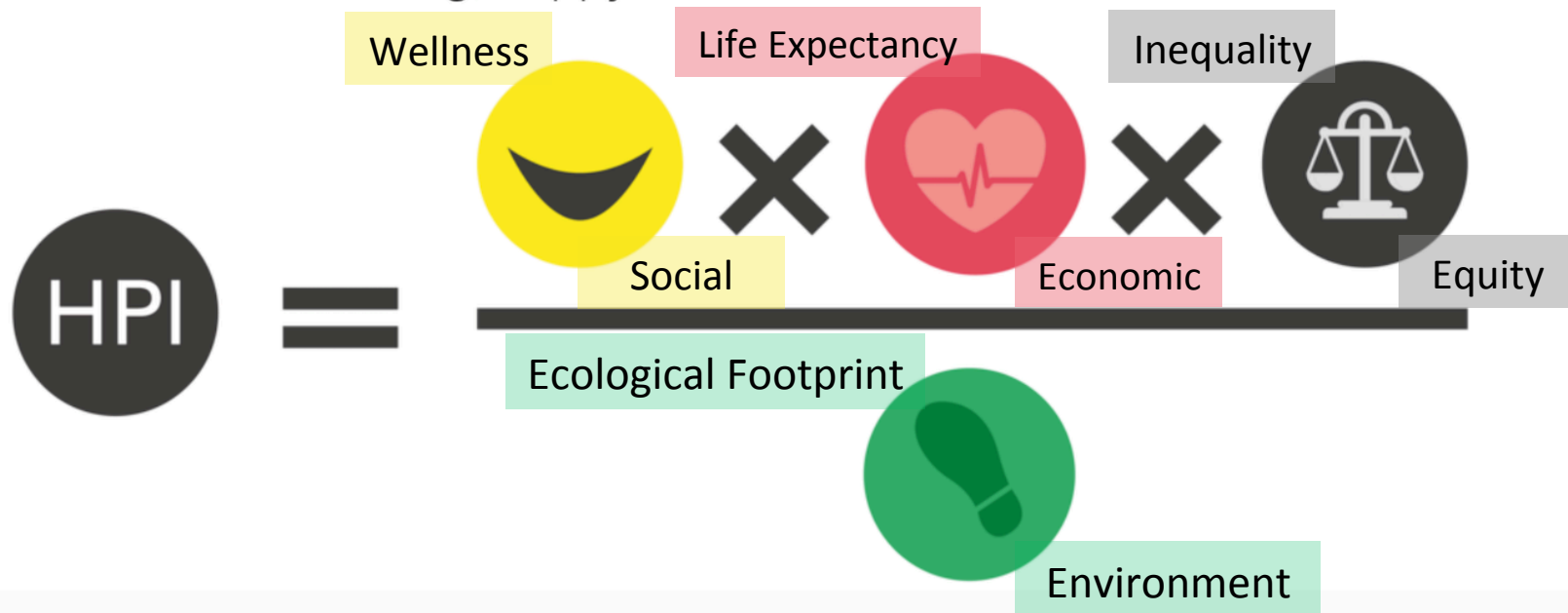
- 1 word answers only
- 3 entries per student

[https://www.menti.com/
rpagwbk7ic](https://www.menti.com/rpagwbk7ic)



Happy Planet Index

The Happy Planet Index combines four elements to show how efficiently residents of different countries are using environmental resources to lead long, happy lives.



What do you
think is the
happiest country
on the planet?
Why?

How do you think
the U.S. ranks?
Why?



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Happy Planet Index



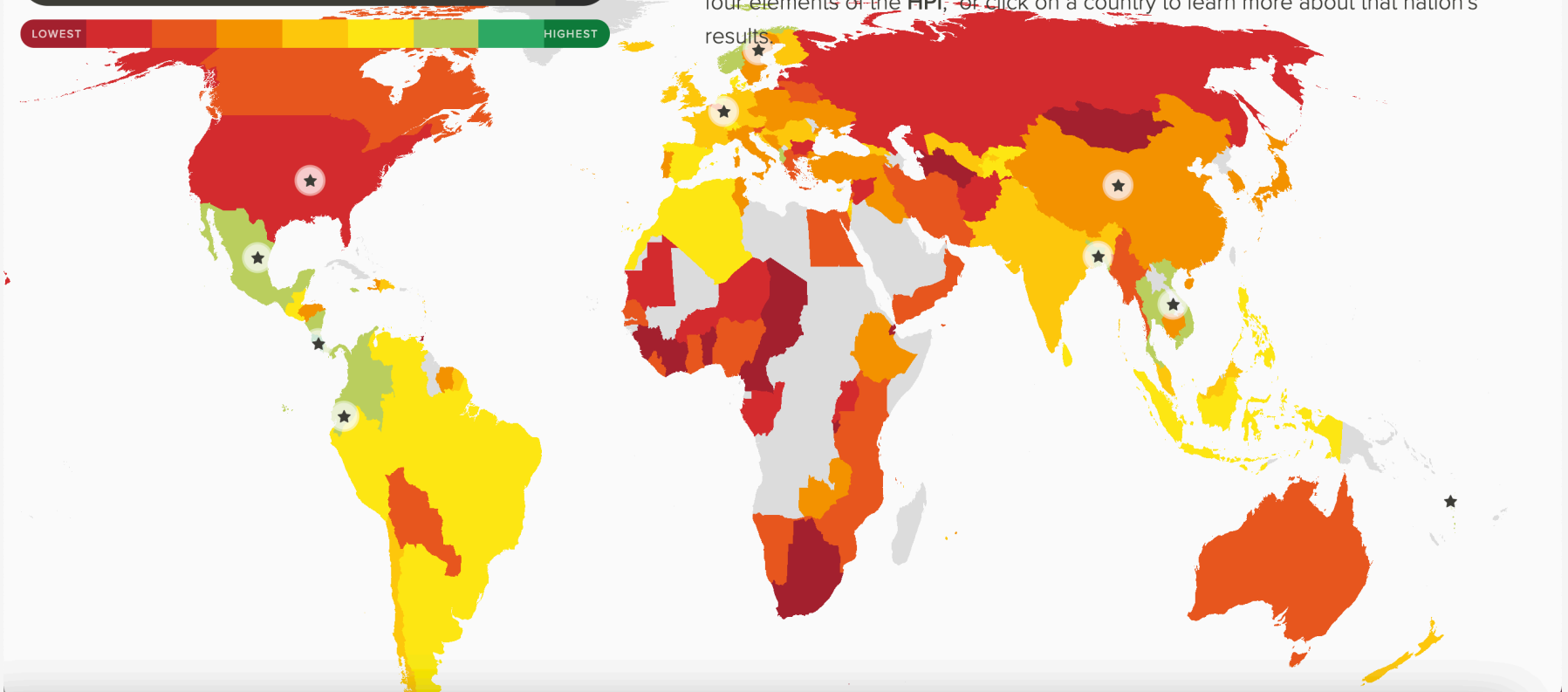
HPI Happy Planet Index Score



LOWEST

HIGHEST

Use the dropdown menu to explore how countries compare on each of the four elements of the HPI, or click on a country to learn more about that nation's results.

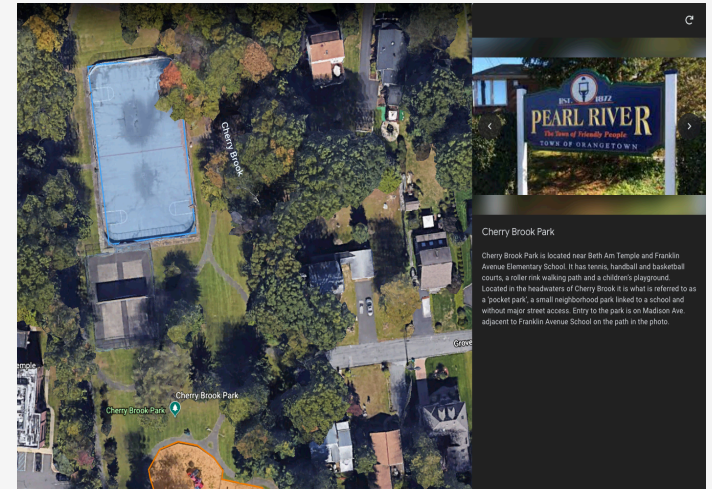
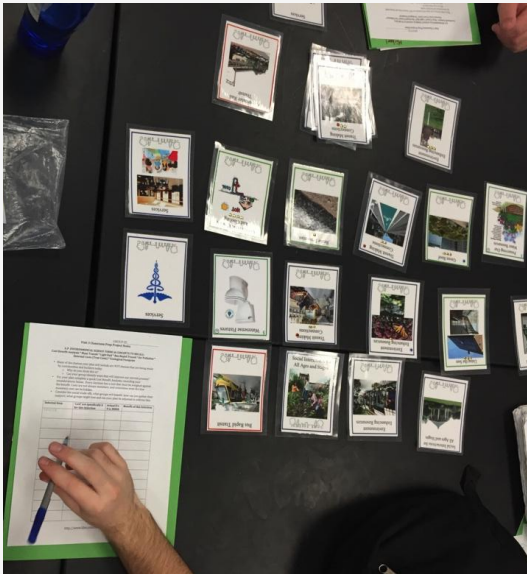


How does this fit into the RPLUS Program

Considering Sustainable
Planning in Your Community

Develop a Sustainable Plan
for a Local Space

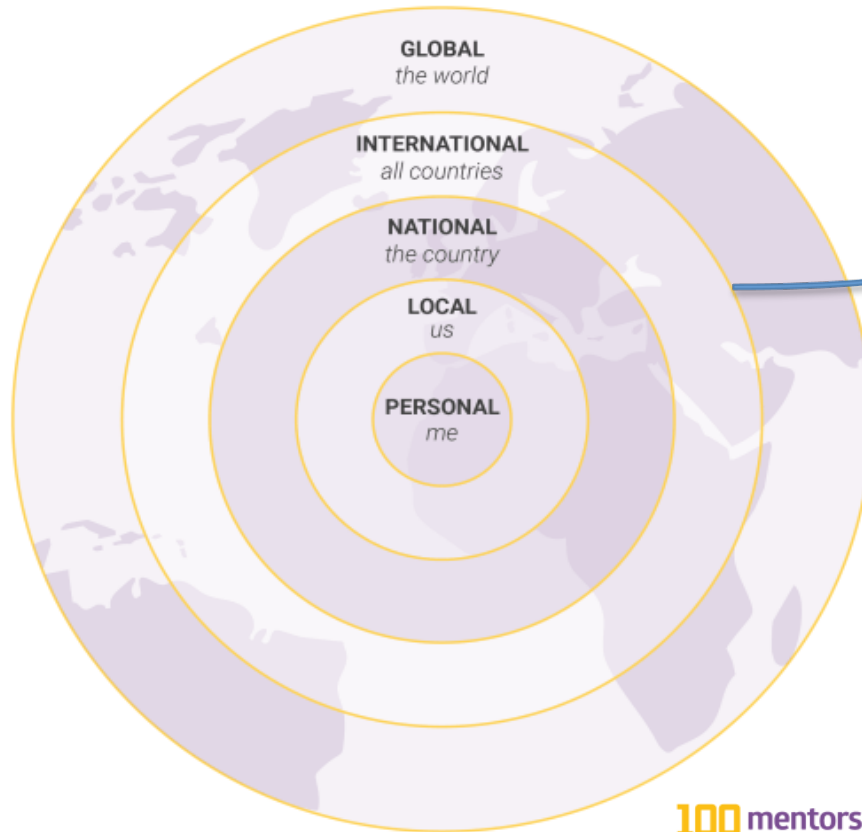
Create a Google Earth Presentation
to Share Your Project Plan



Present your plan to a community professional & work on a new project in the County!



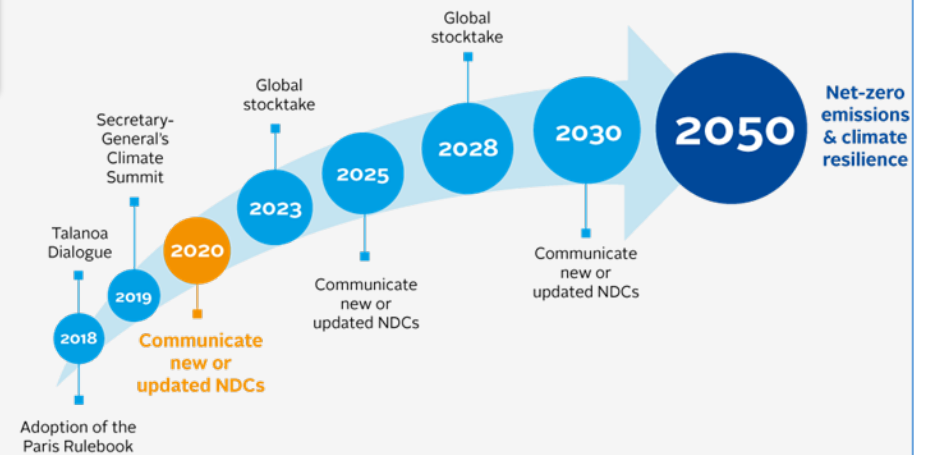
Action is important at every level!



100mentors

The Paris Agreement

AMBITION MECHANISM IN THE PARIS AGREEMENT



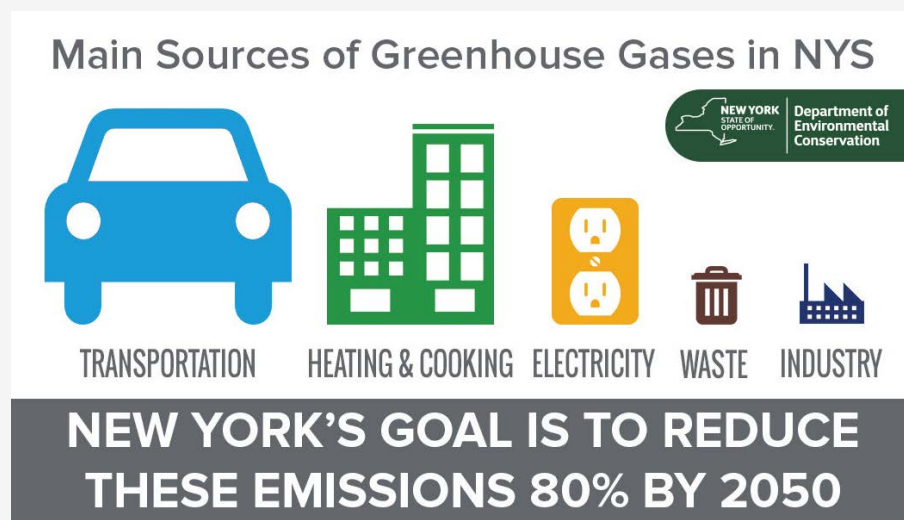
Source: [wri.org/publication/NDC-enhancement-by-2020](https://www.wri.org/publication/NDC-enhancement-by-2020)

EVERY COMMUNITY MUST HELP...BUT HOW?

New York State is a leader in taking action!



New York State is experiencing higher climate impacts than the national average. In response they have set some very aggressive energy reduction targets!



Reduce 40% by 2030 and 80 % by 2050 from 1990 GHG emission levels.

EVERY COMMUNITY MUST HELP...BUT HOW?



One way is through actively being a **‘Climate Smart Community’**

Climate Smart
Communities

Climate Smart Communities: NYS program that guides local governments in taking action in reducing greenhouse-gas (GHG) emissions and adapting to climate change.

Plan for “Climate Smart” Land Use:

- Complete Streets – accommodate all users
- Planning that includes Walking & Biking
- Design for Electrical Vehicles
- Ways to Increase Public Transit Ridership & Carpooling
- Natural Resources Inventory & Local Tree Planting Program
- Preserve Natural Areas through planning





One way is through becoming a 'Climate Smart Community'?

Climate Smart
Communities

Climate Smart Communities: A NYS program that helps local governments take action to reduce greenhouse-gas (GHG) emissions & adapt to climate change.

- **Community Solar**
- **Community Task Force of Stakeholders - including youth voices**
- **Enhance Community Resilience to Climate Change**
- **Education to the Community**





One way is through becoming a 'Climate Smart Community'?

Climate Smart
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Climate Smart Communities: A NYS program that helps local governments take action to reduce greenhouse-gas (GHG) emissions & adapt to climate change.

- Community Solar
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- Enhance Community Resilience to Climate Change
- Education to the Community



Rockland's first Bronze Certified Climate Smart Community!

- Municipal buildings currently use 100% green electricity sources
- Installing new LED streetlights to cut 68% of their lighting energy needs

Climate Smart Reduces Global Warming & Sea Level Rise (SLR)

We will see submerged waterfronts, rail lines even airports.

1 ft. SLR:

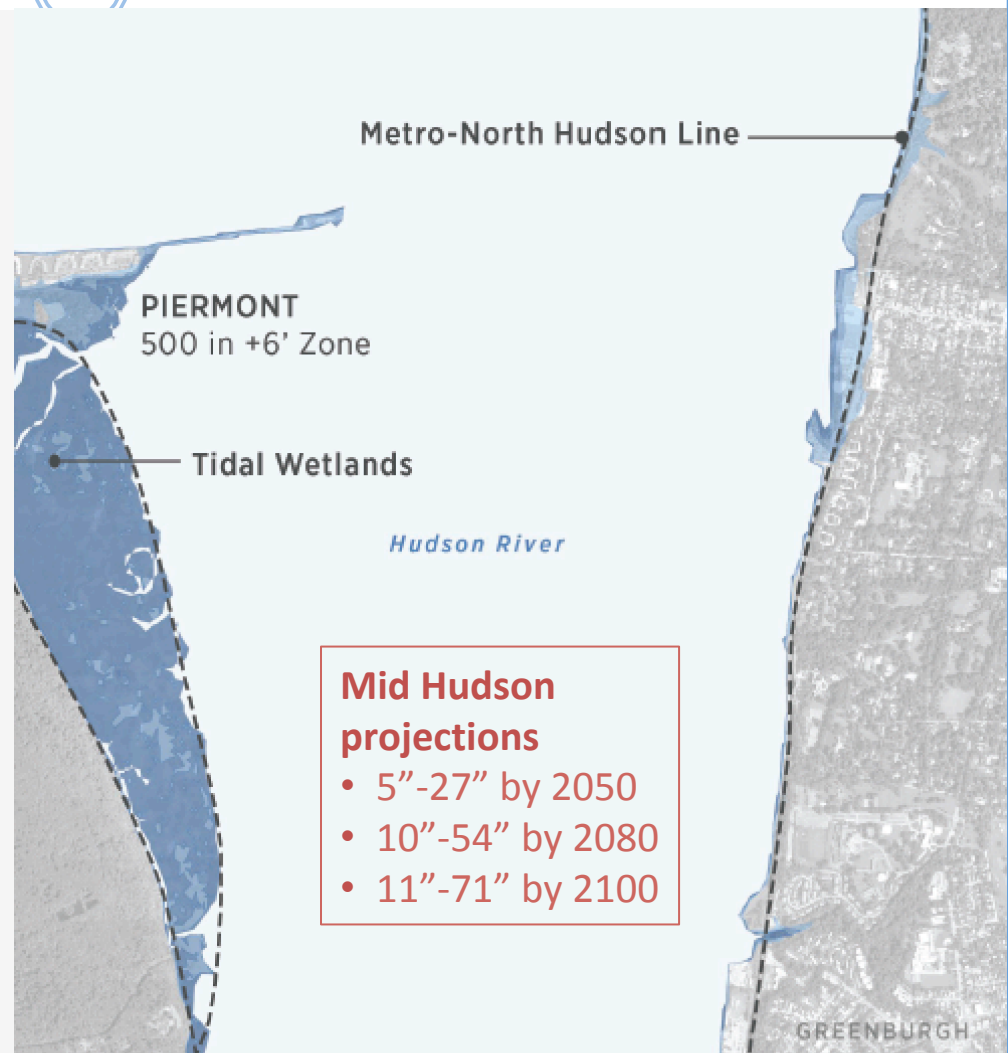
- **Permanent flooding** for many developed waterfront edges along the Hudson
- Areas of Piermont **already** face regular flooding at high tide

3 ft. SLR:

- Portions of **Metro North** flooded
- **Permanent flooding** for >2,000 Westchester & Rockland residents
- 3 ft. inundation for ~9% of Piermont's current residents

6 ft. SLR:

- **Flooding of critical infrastructure:**
 - East-west railroads
 - Wastewater treatment plants
 - Power generating facilities
 - All 3 NY Airports
- Flooding for >2,500 residents



Sea Level Rise is Accelerating

Sea Level Rise (SLR) is part of our present & our future

Regional Planning efforts are considering these issues

Photo from Hudson River flooding, but local streams and waterways also cause impacts.

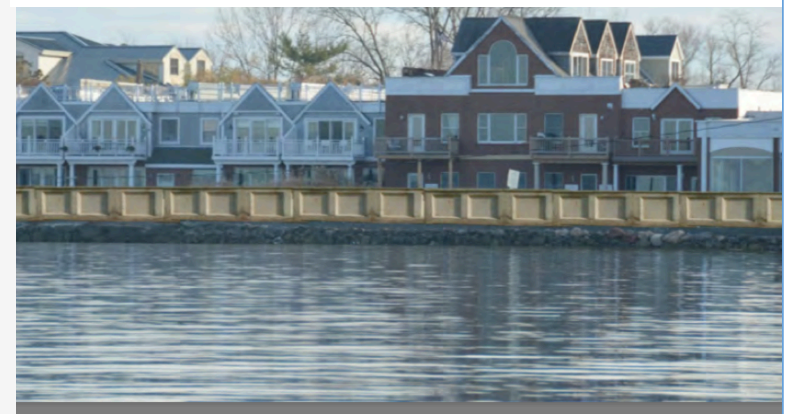


Can planning decisions play a role in storm impacts?

Photo-simulation: Elevated roadway (black) & floating homes.



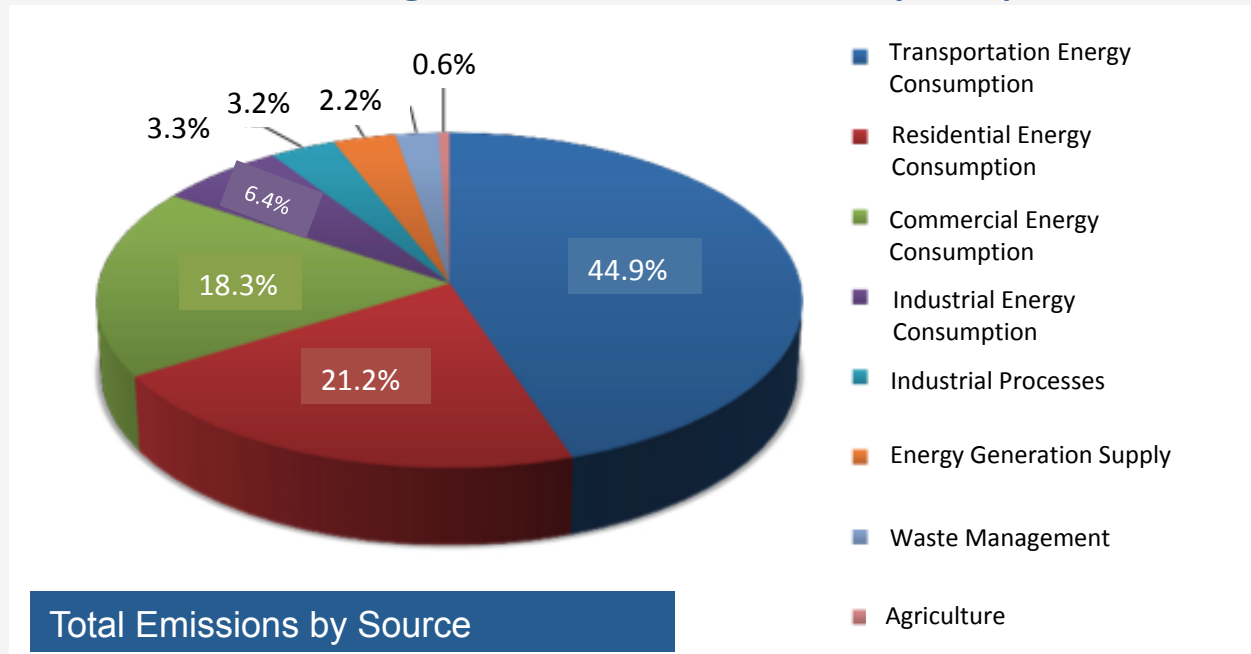
Photo-simulation: Elevated seawall & removable floodwall.



Piermont images from "Resilience Roadmap: Planning for Piermont's Future" Task Force Report 2014.

What About the wider Mid-Hudson Region of NYS?

Mid-Hudson Regional Sustainability Report 2013



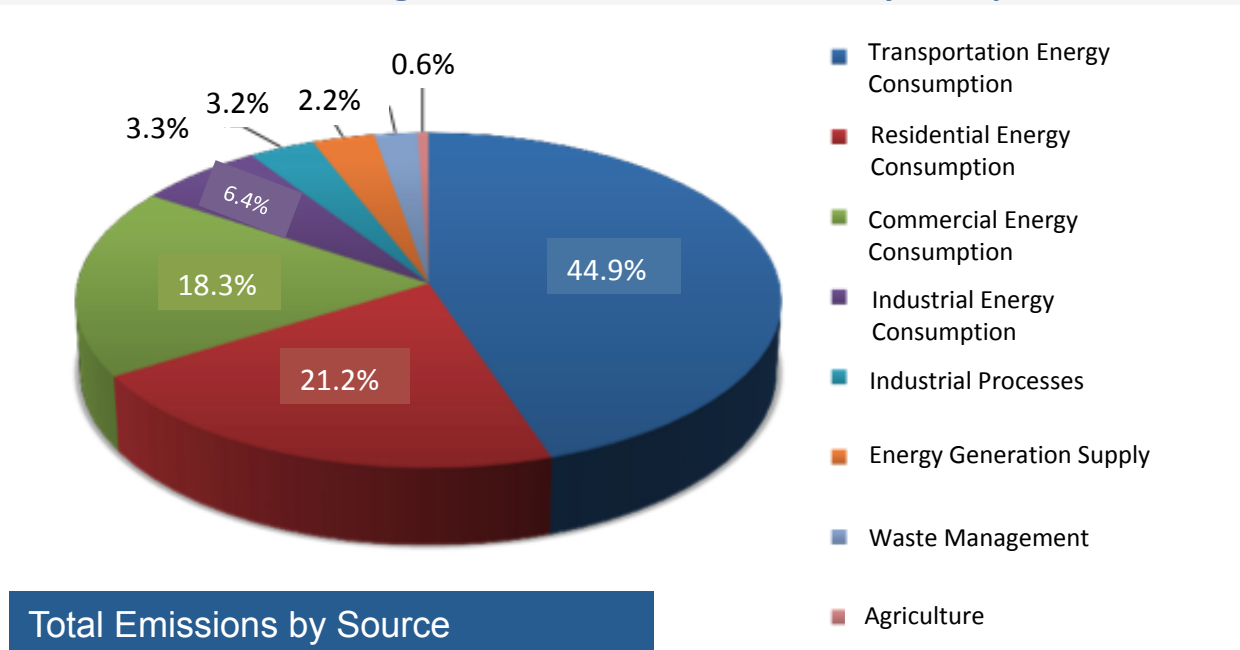
82% of Rockland residents live & work in the county

Almost half (44.9%) of our region's emissions come from transportation.

Emissions are a major contributor to Green House Gasses (GHG) so moving people more efficiently within in the county is an important piece in sustainable planning.

What About the wider Mid-Hudson Region of NYS?

Mid-Hudson Regional Sustainability Report 2013



**Will this data look the same for 2020?
What do you think?**

Thinking Ahead:

How do you think our future will differ?

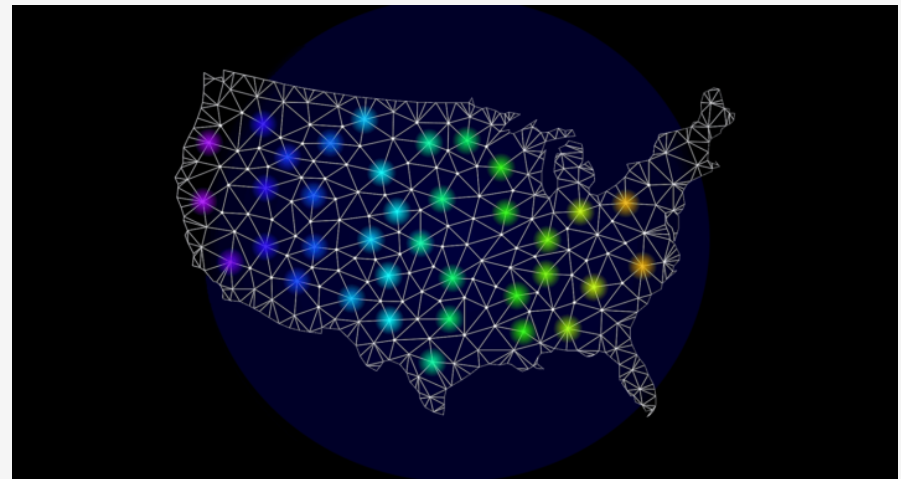
Shared transit can
have a significant
impact.



1 bus/car = 30 autos

2018 National Data on Work
Commuting:

- **Driving** was still the most dominant form of commuting
- **Telecommuting** ranked 2nd!



How does all this relate to you and to planning?



- Consider how to **reduce Green House Gases with natural design.**
- **Plan with resilience** in mind by leaving naturally planted areas with native planting to absorb water.
- **Reduce** filling, paving and hardening surfaces.
- **Stop** enclosing our streams in pipes and developing too close to waterways so they have no place to spill over.

Good news!

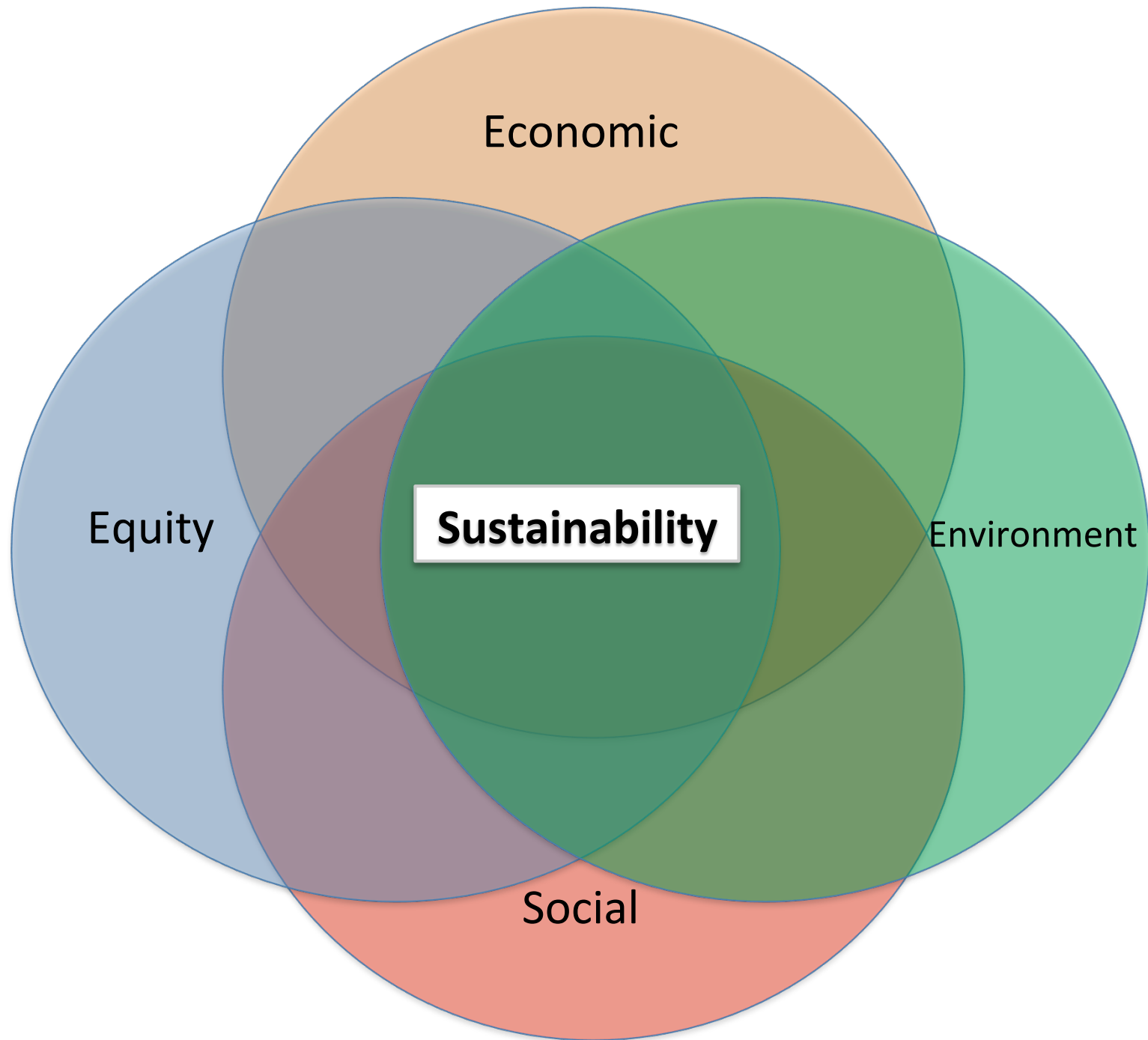
With thoughtful planning practices and land use decisions, we can create communities that **reduce our carbon**, are **more resilient**, **fun, environmentally friendly**, and **thriving** places to live and work!

Group Activity –

Planning Sustainably for all Ages and Stages



- Review the Community Enhancing Features worksheet in your Google Drive folder.
- Consider the different age groups that make up your community. Which community features best meets the needs/interests of each age group?
 - Children (ES)
 - Teens (HS)
 - Adults (A)
 - Seniors (S)
- In groups of 3-5, select 5 CEF that meet the needs of different age groups in a community – Be ready to discuss your reasoning

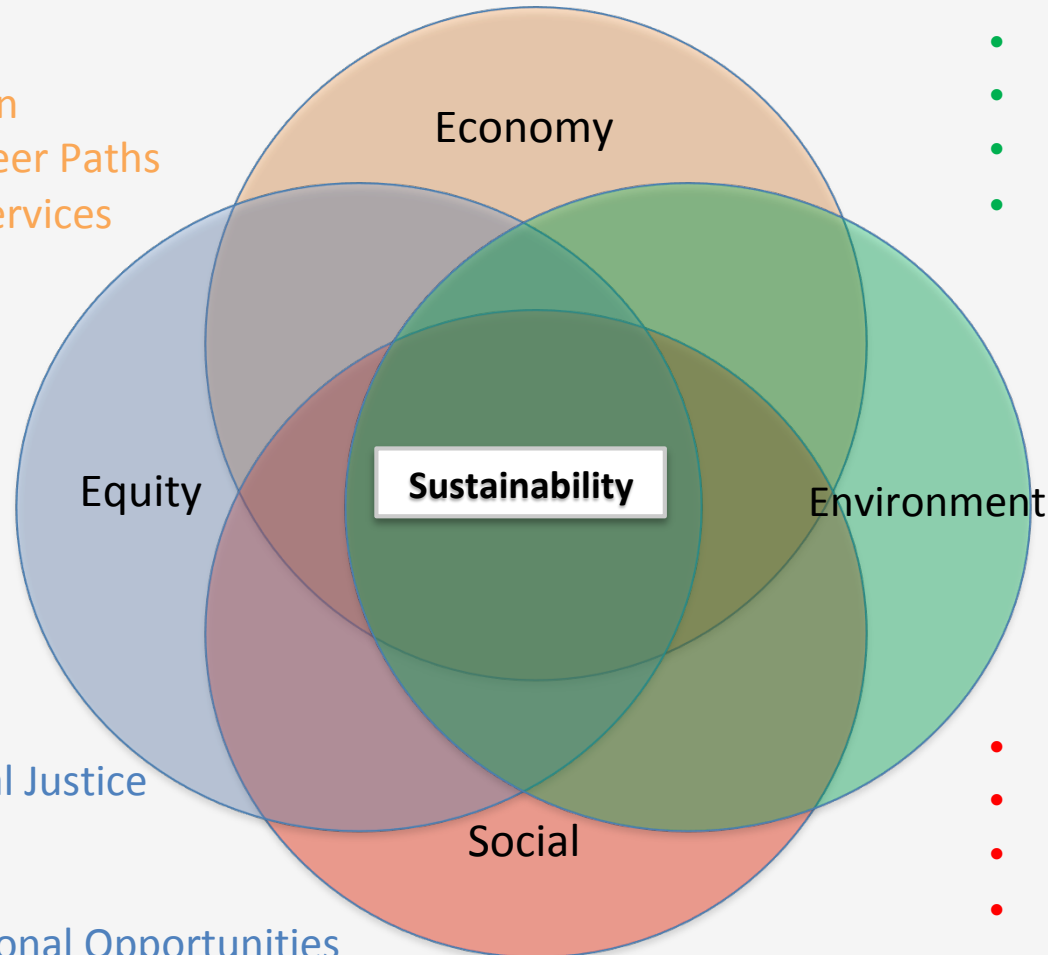


Rockland P.L.U.S. helps us S.E.E.E. the Community

Social, Economic, Equity, and Environmental community components

- Housing
- Transportation
- Jobs with Career Paths
- Diversity of Services

- Water Resources
- Storm Water
- Air Quality
- Open Space & Wildlife



- Environmental Justice
- Cohesion
- Welfare
- Job & Educational Opportunities

- Wellbeing
- Recreation
- Ethnic Character
- Safety
- Community Voice

Next time-

We'll discuss what you found in your community!



Between now and next visit, each student should think of at least 3 places that are *cool, equitable, and sustainable features in your community!*

After you compiled this list, *add your ideas to a classroom Jamboard into the appropriate sustainability spheres and we will discuss!*

BONUS: Think of what you have seen elsewhere that we feel is missing in our community. What would you want to see added? Feel free to jot this down as well.