

Jenna Kay

From: Monica Zazueta <zazuetamonica0813@gmail.com>
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To: Jenna Kay; Amy Koski; sylvia@mosaicresolutions.com; Dana Hellman; Ben Duncan; Nicole Metildi; Harrison Husting; tlunsford@parametrix.com
Subject: Page 1 of policy recommendations

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1, G1

Tom Chi: "Net Positive for the Planet – from Beavers to Bionics" | The Great Simplification

<https://youtu.be/AjGOGfzAvyc?si=HnYhclLCMouuQ23U>

Here are the key points about being net positive for the planet:

Beavers:

- Beavers are a keystone species that can have a very positive impact on the ecosystem. Their dam-building creates wetlands that sequester carbon, reduce wildfire risk, and support biodiversity.
- Beavers were once much more abundant in North America, with over 100 million before colonization. Their populations were drastically reduced, leading to negative impacts.
- Investing in and protecting beaver populations could be a very effective nature-based climate solution.

Bionics/Technology:

- The video discusses how technology like autonomous electric tractors, robotic farming, and precision agriculture can reduce emissions and resource use compared to traditional industrial agriculture.
- The focus is on developing technologies that are "disruptive deep tech" - providing radically better unit economics and environmental performance.
- The goal is to find technological solutions that are economically viable without requiring major policy changes, though supportive policies could further accelerate adoption.

Policy Ideas:

- Regulations and incentives to protect and restore wetlands and other natural carbon sinks.
- Policies to accelerate the adoption of sustainable agricultural practices and technologies.
- Transitioning away from an "extractive economy" focused on resource depletion towards one centered on material productivity and ecosystem health.
- Long-term, patient investment in solutions that may take decades to fully implement and scale.
- Framing climate and environmental goals in a positive, aspirational way (e.g. "net positive to nature") rather than just focusing on emissions reductions.

The overall emphasis is on working with natural processes, developing innovative technologies, and taking a long-term, systems-level view to create a more sustainable and regenerative economy and society.

2, G1 P1 three bullet points down

A keystone species is an organism that has a disproportionate effect on its environment relative to its abundance. They are vital to the long-term sustainability of their ecosystems and can be plants, animals, fungi, or bacteria.

The term "keystone" comes from the wedge-shaped stone at the top of an archway that holds the structure in place. If the keystone is removed, the arch collapses. Similarly, the removal of a keystone species can cause an ecosystem to collapse.

A keystone species plays a critical role in maintaining the structure and health of an ecosystem. Despite its relatively low abundance compared to other species, its presence or absence can significantly influence the overall dynamics of the environment.

The role of a keystone species is crucial; their activities can affect nutrient cycling, community composition, and even the physical environment, emphasizing their importance in ecological balance.

Beavers are considered a keystone species in Washington State for several reasons, primarily related to their unique ecological role and the significant impact they have on their environments.

1. **Wetland Creation**: Beavers are known for their dam-building activities, which create ponds and wetlands. These wetlands provide critical habitat for a variety of wildlife, including birds, amphibians, and fish. They also support diverse plant communities.
2. **Water Management**: By creating dams, beavers help regulate water flow in streams and rivers. This can lead to improved water quality, reduced erosion, and enhanced groundwater recharge. Their activities help maintain water levels during dry periods, benefiting both aquatic and terrestrial ecosystems.
3. **Biodiversity Enhancement**: The wetlands and ponds formed by beaver activity increase biodiversity by providing habitats for numerous species. This includes not only aquatic organisms but also terrestrial species that rely on wetland ecosystems.
4. **Nutrient Cycling**: Beavers contribute to nutrient cycling by trapping sediments and organic materials in their ponds. This can enhance the productivity of the surrounding ecosystem and improve the health of aquatic habitats.

5. **Habitat for Fish**: Beavers create ideal conditions for fish populations, particularly salmonids, by providing cooler water temperatures and shelter from predators. The presence of beaver ponds can increase fish populations and contribute to the overall health of aquatic ecosystems.

6. **Natural Flood Control**: The dams built by beavers can help mitigate flooding by slowing down water flow and creating storage areas. This can reduce the impact of heavy rains and protect downstream habitats and human infrastructure.

In summary, beavers play a vital role in shaping their ecosystems in Washington State. Their activities not only support a wide range of species but also contribute to healthier habitats and improved ecological resilience.

Transforming grass lawns into pollinator gardens and food areas is a fantastic idea that benefits both the environment and the community. Here are some suggestions to make this transition visually appealing while serving practical purposes:

1. **Diverse Plant Selection**: Choose a variety of native flowering plants that attract pollinators such as bees, butterflies, and hummingbirds. Consider incorporating a mix of perennials, annuals, and herbs to ensure year-round interest and color.

2. **Edible Landscaping**: Integrate edible plants like fruits, vegetables, and herbs into the landscape design. Raised garden beds, vertical gardens, and container gardening can create a structured and attractive layout while providing fresh produce.

3. **Colorful Pathways**: Create winding pathways using natural materials like gravel, mulch, or stepping stones. Surround these paths with flowering plants and edible greens to guide visitors through the garden and add visual appeal.

4. **Wildflower Meadows**: Replace traditional lawns with wildflower meadows that require less water and maintenance. These meadows can be vibrant and full of life, providing habitats for various species and a beautiful landscape.

5. **Seasonal Interest**: Plan for plants that bloom at different times of the year. This not only ensures continual color and interest but also supports pollinators throughout their active seasons.

6. **Artistic Elements**: Incorporate decorative elements such as trellises, birdhouses, garden sculptures, or colorful garden signs. These features can enhance the aesthetic appeal and create focal points within the garden.

7. **Mulching**: Use organic mulch to retain moisture, suppress weeds, and improve soil health. Mulch can also provide a neat appearance to garden beds.

8. **Community Involvement**: Engage neighbors or community members in the project. Host workshops or planting days to encourage participation and foster a sense of ownership in the transformation.

9. **Water-efficient Practices**: Implement rainwater harvesting systems, drip irrigation, or xeriscaping techniques to minimize water usage while maintaining a lush garden.

By turning grass lawns into pollinator-friendly and edible spaces, not only do you create a beautiful environment, but you also contribute to biodiversity, sustainability, and the local food system.

Food is closer to home, that reduces greenhouse gas emissions.

Grass turds around town - replace with a mix of native plant plugs, pollinators. Install a educational sign with a bird home on top of that sign that teaches people about the importance of native plants and have a QR code which takes people to a website that shows the plants that have been planted there and where to get local native plants.

https://www.instagram.com/andrew_the_arborist?igsh=MWx0c2o2bHZybGVsMQ==

G1-P1 four bullet points down

Lazer Cube

<https://youtu.be/yVdtVuj4DII?si=TSakzb9FIngC1txF>

Put out the building social capital signal (bat signal)

We need to get more hands on deck, hands in soil and that is all generations and this is something that could appeal to the younger generation.

3, G1-P2

Reducing disparities and eliminating disparities in the context of compounding environmental impacts refer to different approaches and goals in addressing environmental justice and equity. Here's a breakdown of the differences:

Reducing Disparities

1. **Definition**: Reducing disparities involves making efforts to lessen the differences in environmental impacts experienced by various communities. This approach acknowledges that disparities exist and seeks to mitigate their effects.

2. **Focus**: The emphasis is on addressing inequalities by providing support and resources to disadvantaged communities. This could include improving access to clean air, water, green spaces, and resources for resilience against environmental hazards.

3. **Methods**: Strategies may involve implementing policies that promote environmental equity, increasing funding for community programs, enhancing public transportation, and investing in renewable energy in underserved areas.
4. **Outcome**: The goal is to create more equitable conditions where the negative environmental impacts are less severe for marginalized communities, but disparities may still persist.

Eliminating Disparities

1. **Definition**: Eliminating disparities is a more ambitious goal that seeks to completely eradicate the differences in environmental impacts among communities. This approach aims for full equity and justice.
2. **Focus**: The emphasis is on transforming systems and structures that contribute to environmental injustices. This includes addressing the root causes of disparities, such as systemic racism, economic inequality, and lack of political representation.
3. **Methods**: Strategies may involve comprehensive policy reforms, community empowerment initiatives, equitable distribution of resources, and active participation of affected communities in decision-making processes.
4. **Outcome**: The ultimate aim is to achieve a state where all communities experience equal environmental benefits and have the same level of protection from environmental harms, effectively creating a just and sustainable environment for everyone.

Summary

In essence, reducing disparities is about lessening the gap in environmental impacts, while eliminating disparities aims for complete equity and justice. Both approaches are important in addressing environmental issues, but they differ in their scope, focus, and ultimate goals.

4, G2

The overarching policy you've proposed, focusing on "advanced environmental justice through the Clark County comprehensive growth management plan and associated plans, policies, development, regulations, and strategies," sounds promising and aligns well with contemporary prioritization of environmental justice in urban planning. Here are some key considerations to evaluate its effectiveness:

Adding **through**,

1. **Inclusivity**: Ensure that the policy actively involves marginalized communities in the planning process, giving them a voice in decisions that affect their environment and health.
2. **Integration**: The policy should seamlessly integrate environmental justice principles into all levels of planning and development, ensuring that equity is a central theme in all regulations and strategies.

3. **Sustainability**: Emphasize sustainable practices that not only address current environmental issues but also anticipate future challenges related to climate change and urban growth.
4. **Measurable Goals**: Establish clear, measurable objectives to track progress in achieving environmental justice and assess the impact of the policies implemented.
5. **Collaboration**: Foster partnerships with local organizations, government agencies, and community groups to enhance resources and support for environmental justice initiatives.
6. **Education and Awareness**: Incorporate educational programs to raise awareness about environmental justice issues among both planners and the community.
7. **Evaluation and Adaptation**: Include mechanisms for regular evaluation and the ability to adapt policies based on feedback and changing circumstances.

By addressing these considerations, the policy can effectively promote environmental justice while supporting sustainable growth in Clark County.

5, G2-P1

will safeguard the health and well-being of our community and the planet.

6, G2-P2

Indigenous peoples are distinct cultural and social groups with ancestral ties to the lands and natural resources where they live. They have their own languages, cultures, beliefs, and knowledge systems, and often have their own political, economic, and social systems. Indigenous peoples are often marginalized politically and socially, and are considered one of the most vulnerable groups of people in the world.

10, G3-P2

Provide incentives to *landlords(*rental managements) to proactively address pest and mold issues in housing, while also offering guidance on effective management of indoor and outdoor pests using non-chemical methods that completely avoid the use of pesticides.

20, G5-P1

Ban all seriously toxic industrial chemicals and toxic plastics and we have to find substitutes that are acceptable. We have to use bioderived materials. Engineer, microbes and bacteria to take it out of the air.

Toxicity is local. We need one world one health. What we do to our mother earth we do to ourselves. Those pesticides are designed to kill insects, plants and fungus, what do you think it's doing to us?

20, G5-P2

How farmers reshaped a region and solved drought

<https://youtu.be/79VUAFq2rbg?si=ScR0bPYT1thVzs9Z>

Here is a summary and step-by-step process of the work described in the video:

Summary:

The video describes the incredible water management and agricultural transformation that has occurred in the village of Loria in the arid region of Rajasthan, India over the past 45 years. Led by Lakshman Singh, the villagers have implemented a comprehensive system of water harvesting, groundwater recharge, and sustainable agriculture that has allowed them to thrive even during extended droughts. This includes constructing a network of interconnected ponds and water channels, implementing a unique "chala" system of infiltration pits, planting thousands of trees, and shifting to diverse, multi-season cropping. The results have been a dramatic increase in water table levels, lush greenery, and agricultural prosperity across the region.

Step-by-step process:

1. Recognized the plight of the village with no water and difficulty managing even single-year droughts.
2. Rallied the local community and surrounding region to work together on water management solutions.
3. Constructed a diverse network of water channels, ponds, and interconnected water systems across multiple villages to maximize rainwater harvesting and groundwater recharge.
4. Developed a unique "chala" system of infiltration pits and raised bunds to capture and infiltrate stormwater runoff in the flat terrain.
5. Planted thousands of trees across the landscape, which has helped moderate the local climate and microclimate.
6. Shifted to diverse, multi-season cropping, with a combination of irrigated and rainfed agriculture supported by the improved water availability.

7. Continued expanding the water management and reforestation efforts to over 60 neighboring villages in the region.

8. Maintained a participatory, community-driven process that has deeply bonded the villagers to the collective wellbeing of their land and resources.

The text emphasizes that this transformation was the result of nearly 50 years of sustained community effort, not a top-down development process. It serves as an inspiring example of what can be achieved through local ingenuity and collective action, even in the most challenging arid environments.

The text provides the following details on the "chala" system implemented in the village of Loria:

The Chala System:

- The chala system was developed as a unique method for infiltrating stormwater runoff in the flat terrain of the region.
- It involves excavating a series of pits or compartments and using the excavated soil to build up bunds (embankments) around them.
- These compartments are then flooded by stormwater runoff during the monsoon season.
- The water is held back by the bunds and allowed to fully infiltrate into the ground, recharging the aquifer.
- Once the water soaks in, it leaves the soil surface moist in a patterned way, allowing grasses to grow abundantly for grazing animals.
- Each compartment overflows into the next, and the entire chala system eventually overflows into a larger water body.
- This chala system has been critical in enhancing groundwater recharge and water availability in the otherwise arid region.
