

Social Equity & Climate Change

A Discussion Paper about Community Resilience

November 2015

Brief: *Climate change will affect all of us in many ways – from water shortages to flooding in certain areas and from wild fires to rising seas in others. But in many cases, it is the most vulnerable people who will be affected the most – over 13% of Washington’s population is living below the poverty level.*

Problem

As we deepen our understanding of climate change effects, it is becoming evident that those who have contributed the least to factors that cause climate change are those who are potentially most vulnerable to the negative consequences of climate change.

Hurricane Katrina made this tragically clear when vulnerable populations were those most greatly affected not only by its widespread devastation, but also by the unequal provision of services and resources following the event.

What is Social Equity? The National Academy of Public Administration (NAPA) defines social equity as: *The fair, just and equitable management of all institutions serving the public directly or by contract, and the fair, just and equitable distribution of public services, and implementation of public policy, and the commitment to promote fairness, justice, and equity in the formation of public policy.*¹

¹ National Academy of Public Administration, Standing Panel on Social Equity, Issue Paper and Work Plan. October 2000; amended November 16, 2000.

Environmental justice is the equal protection of minority and low-income populations from environmental hazards. Often this designation is broadened to include especially vulnerable populations such as the disabled, the elderly, the very young, and populations with limited English proficiency. The goals for environmental justice and social equity promote public policy that includes fair and equitable procedures, regulations, and outcomes. A number of cities are preparing plans to address sustainability and climate change issues, including a focus on social equity.



Anacortes (4 February 2006)



Whidbey Island (4 February 2006)

The issue of social equity has been a concern at the national level. In 1994, Presidential Executive Order 12898 mandated: “Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”²

In Washington, local government can help communities shift to climate-smart, socially equitable solutions. In addition to broader issues of social equity, this section focuses on five issues of particular importance for vulnerable populations:

1. Food Access
2. Mobility and accessibility
3. Environmental hazards
4. Affordable, adaptable and energy-efficient housing
5. Climate-related migration

Introduction

“When the floodwaters rise, fires wage, droughts parch, or super-diseases attack, the most marginal cannot afford to get out of harm’s way. They cannot afford to protect themselves. And still worse, once the crisis has passed, they are least able to bounce back, to rebuild, to recover.”

—Van Jones³

² Environmental Justice. U.S. Department of Transportation. Federal Highway Administration and Federal Transit Administration.

³ Jones, Van. *The Green Collar Economy; How One Solution Can Fix Our Two Biggest Problems*. New York: HarperCollins. 2008. Pg. 66.

The principles of the AICP code of ethics state that: “We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration.”⁴

Planning for the mitigation of climate change (reduction of greenhouse gases) and adaptation to the effects of climate change directly links to issues of social justice and social equity.

This Brief discusses social equity issues specifically related to the impacts of climate change and also includes broader issues of social equity in planning and public policy for our communities.

Identification of Location and Needs of Vulnerable Populations

Children, the elderly, immigrants, minorities, lower socioeconomic adults and families, and the disabled are often underrepresented within the decision-making bodies and processes for establishing social policy. A resultant consequence is that these vulnerable populations are frequently underserved by infrastructure and services.

A key component to serving these vulnerable populations is to know their numbers and locations within urban and rural communities. Thus, the first step in

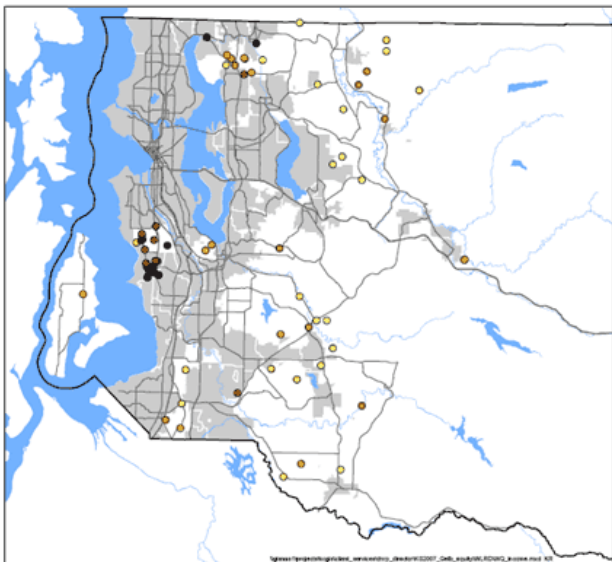
⁴ Myers, Norman. Visiting Fellow, Green College, Oxford University. *Environmental Exodus: An Emergent Crisis in the Global Arena*. Climate Institute. 1995.

addressing social equity is mapping population by demographic data to identify the location of vulnerable groups.

Project Example

In support of the King County Equity and Social Justice Initiative passed in 2008, the county's Department Natural Resources and Parks (DNRP) began carrying out an equity assessment of its services. Through the use of geographic information systems (GIS), services and facilities were mapped along with basic demographic conditions such as race and income. DNRP has evaluated parks and trails, water quality, hazardous waste management, and wastewater and solid waste facility locations to identify any disproportionate benefits and burdens that could be addressed through program adjustments or reprioritizations. See map below. **More**

Info: <http://www.kingcounty.gov/elected/executive/equity-social-justice.aspx>



Map of Water Quality Audits by Income.
(Image from referenced web-link.)

The second step is to identify climate-related hazards affecting your community and to map these. By overlaying the maps of hazards and of vulnerable populations, planners can assess the needs of vulnerable populations and help to ensure that resources can be efficiently and effectively allocated among population groups with similar needs.

For example, the elderly and lower income adults have a greater than average need for transit. Planners can consider the locations of these groups and the need for transit on a daily basis along with the special needs of evacuation in case of emergencies. Working with local service providers and first responders, planners can help facilitate a hazards response strategy for these groups.

This information can also support a broader Social Impact Assessment to help evaluate policy alternatives and to formulate effective, equitable public policy.

Another example of vulnerability mapping was prepared by the Puget Sound Regional Council in 2012 to analyze access to opportunity in the four-county central Puget Sound region. This effort was supported by a Sustainable Communities Regional Planning grant through the U.S. Department of Housing and Urban Development. The analysis examined a total of twenty indicators across five sub-measures of opportunity—education, economic health, housing and neighborhood

quality, mobility and transportation, and health and environment. For cities in the four-county central Puget Sound region, this mapping provides an extensive resource valuable for social equity planning. More information can be found at PSRC.⁵

Arrival of a New Vulnerable Population

There has always been an influx of immigrants to the United States for a variety of social, economic, and political reasons. However, climate change may add a significantly larger population of climate migrants who have been dislocated from their homes due to rising sea levels, climate-related disasters, and other environmental hazards resulting from climate change.

The Earth's climate is changing at a rate that is exceeding most scientific forecasts. Over the last two decades, the number of recorded natural disasters has doubled from some 200 to over 400 per year. Climate change is already undermining the livelihoods and security of many people around the world. The Norwegian Refugee Council and the UN *Office for the Coordination of Humanitarian Affairs* (OCHA) have estimated that in 2008 alone, at least 36 million people were newly displaced by sudden natural disasters, including over 20 million displaced by disasters related to the climate.⁶

⁵ <http://www.psrc.org/growth/wctoolkit/opportunity-mapping/>

⁶ United Nations, Resources for Speakers on Global Issues, accessed at: <http://www.un.org/en/globalissues/briefingpapers/refugees/nextsteps.html>

Estimating future displacements due to climate change is difficult and there is no common agreement on projections, either globally or in the United States. However, the more widely cited estimates for the number of people displaced by 2050 range from 50 million (UN University's Institute for Environment and Human Security) to 200 million (International Organization for Migration (IOM) and Stern Review).

While some Washington residents will also be affected by climate-related disasters, our region is more likely to see an influx of migrants rather than out-migration. The challenge for planners will be to accommodate the potential population influx while also meeting the needs of existing residents. The PSRC Whole Communities Toolkit provides valuable information for Washington planners. See links below.



<http://www.psrc.org/growth/wctoolkit/complete-communities/>



<http://www.psrc.org/growth/wctoolkit/active-transportation/>



<http://www.psrc.org/growth/wctoolkit/land-use/>



<http://www.psrc.org/growth/wctoolkit/economic-opportunity/>

Climate Change Affects on Vulnerable Populations

Some of the key impacts of climate change on vulnerable populations in Washington⁷ include:

- **Rising temperatures.** Scientists at the Climate Impact Group predict that average annual temperatures in Washington will rise by 4.3°F to 5.8°F by the 20150s. Children and the elderly are particularly affected by high heat. Vulnerable low-income populations are less likely to have air conditioning and more likely to need cooling centers or other accommodation.
- **More frequent and extreme weather events, flooding, and fires.** Projected increases in the frequency and extent of winter storms, river flooding, and wildfire may impact vulnerable populations, especially those isolated and unable to access escape routes or those with other health or respiratory issues.

Further, the rising costs of food and water resulting from these changes will have a particular impact on the poor.

⁷ Climate Impacts Group, State of Knowledge Report (2013), found at: <http://cses.washington.edu/cig/reports.shtml>

Strategies to Promote Social Equity in Adapting to Climate Change Effects

The following discussion is divided into topical areas including:

1. Food Access,
2. Mobility and Accessibility,
3. Environmental hazards
4. Affordable, adaptable and energy-efficient housing
5. Climate migrants

1.0 - Food Access

Increase access to local, healthy foods by low-income people

- 1.1 Increase acceptance of electronic benefits transfer (EBT—food stamps) and WIC payments (Women, Infants, and Children Program) at farmers markets.
- 1.2 Implement programs to “double dollars” for Supplemental Nutrition Assistance Program (SNAP, formerly known as “food stamps”) shoppers at farmers markets.

2.0 - Mobility and Accessibility

Promote mobility between housing, employment, and essential services, especially for vulnerable populations.

Encouraging proximity of uses can reduce the need for auto-dependent travel.

2.1 Identify and map transit, bicycle, and pedestrian infrastructure.

Map the location of existing and planned transit facilities and services relative to the location of areas of low income and affordable housing, public services, and

employment centers.

- Conduct an inventory of the location and condition of existing infrastructure such as sidewalks and bike lanes that promote alternative modes of travel. Utilize this information to set priorities, seek funding, and implement projects.

Example: [Seattle Bicycle Master Plan](#), Seattle Department of Transportation. 2007.

- Identify potential rights-of-way and easements for multi-use trails to promote transportation for recreation and commuting for vulnerable populations. Identify any gaps along significant travel corridors.

2.2. Involve underserved residents in planning for transportation infrastructure.

Choose culturally relevant methods for public participation and solicit information regarding any barriers that limit mobility and choices, such as safety issues and transit service routes and schedule.

2.3 Address areas of inequity in delivery of key services.

Through outreach, public participation and community indicators, identify areas of inequality in availability or use of transportation and delivery of services. Identify potential partnerships and resources to expand services.

Project Example

Tacoma's Community Based Services Program illustrates one way that cities are customizing services for neighborhoods of higher need. The Community Based Services program works in Tacoma neighborhoods that have shown need for additional police,

fire, and code enforcement. The program identifies neighborhood priorities by working closely with community members and pulls personnel from multiple departments for comprehensive problem-solving. The program bears resemblance to the Neighbourhood Integrated Service Team program of Vancouver, BC, which draws on a slightly different mix of government personnel.



One truckload from an Edison Neighborhood clean up in Tacoma. Image from referenced web-link.

Project Example

King County, WA evaluated the proximity to and use of parks and trails by minority and lower income populations. Gelb, Richard. King County, WA: Performance Management Lead at King County Department of Natural Resources and Parks. More

Info: <http://your.kingcounty.gov/aimshigh/2009/search2.asp?BEMoRegionalTrails>

2.4 Promote innovative transportation for different population groups.

Provide incentives for reducing the need for personal automobile ownership. Promote car sharing for residents of multi-family housing and retirement communities and ensure that all populations have access to these

programs. Explore the use of electric vehicles within retirement communities.

Example: A car sharing program in Chicago serves thirty-two neighborhoods and planned developments. Download this document at: Cohen, Adam; Shaheen, Susan; McKenzie, Ryan. [Carsharing: A Guide for Local Planners.](#) American Planning Association-PAS Memo. May-June 2008.

Example: Golf carts utilized in Palm Desert, CA. for pilot transportation program. [Golf Carts making the Rounds in Some Communities.](#) University of Southern Florida. 1998.

2.5 Encourage affordable housing near transit.

Provide height bonuses, reduction in minimum lot sizes, and other incentives to encourage affordable housing within walkable distances to public transit.

2.6 Establish policies for innovative mixed uses.

Incorporate innovative mixed- land use policies in comprehensive plans and zoning regulations in order to provide affordable housing in proximity to retail uses and professional and personal services.

Example: Vivian McLean Place, Seattle, WA with 19 affordable apartments above a library in Delridge neighborhood. <http://affordablehousingonline.com/housing-search/Washington/Seattle/Vivian-McLean-Place/8582/>

Example: West Seattle Food Bank and

Resource Center offers 34 affordable apartments located above a food bank. <http://allycommunitydevelopment.com/west-seattle-community-resource-center/>

3.0 - Environmental Hazards

Lessen the impact of environmental hazards (such as heat waves, drought, flooding, and forest fires) particularly on vulnerable populations.

3.1 Identify and plan for use of community buildings for temporary shelter.

Effectively disseminate information to the public about shelters from storms or cooling centers.

3.2 Develop programs and regulations to minimize and reduce the risk of hazards, especially to vulnerable populations.

Develop programs directed to residents to reduce the incidence and possible impact from hazards, such as flooding, fires, and sea level rise. For example, a program to provide funding to help homeowners replace roofs with fire-resistant roofing materials could reduce fire impacts.

Example: Humboldt County, California, requires defensible space (eliminating flammable vegetation near the home) on all developed and undeveloped lots within areas at high-risk for fire. [Humboldt County Fire Plan](#) Resource Concepts, Inc. 2008.

3.3 Develop incentives for

construction of affordable, naturally cooled homes.

For portions of the state that experience high temperatures, develop incentives for construction of affordable housing designed for natural cooling to minimize the need for air conditioning and resultant energy use and greenhouse gas emissions.

Example: Utilize innovative design and technologies to reduce heat gain within buildings and to promote cooling, including: convective, evaporative, and radiative cooling. [See Arizona Solar Center.](#)

3.4 Regulate development in areas identified as high risk for flooding or forest fires.

Utilize federal and state funding sources and TDR programs to acquire property or development rights in high risk areas to retain these areas as undeveloped buffers.

4.0 - Affordable, Adaptable, Energy-Efficient Housing

Develop incentive and building codes to encourage affordable, adaptable, energy-efficient housing that meets the needs of all populations. This will achieve multiple benefits, including reduction in energy use and unnecessary demolition, thus reducing greenhouse gas emissions for energy and materials production.

4.1 Implement a home weatherization program for low income residents

Make use of state and federal funding

programs for home weatherization targeted to low- and medium-income households.

4.2 Establish design standards and incentives.

Assist vulnerable populations in reducing risks from environmental hazards through design (e.g., elevated homes in flood areas, fire retardant materials in fire areas).

Example: City of Seattle HomeWise program. City of Seattle. [About HomeWise Home Improvement Services: Repairing and Weatherizing.](#)

4.3 Maintain adequate housing stock for available lower income and immigrant groups.

Promote regulations that allow accessory dwelling units within areas zoned for single-family residential in order to accommodate multi-generational families. Increased housing and population density can provide the economic base to support commercial and other services within a walkable distance, thus, decreasing the need for vehicle trips.

Example: City of Mercer Island regulations for accessory dwelling units. Download this document at: [Accessory Dwelling Units](#) City of Mercer Island, WA. 19.02.030. July 2008.

4.3 Adopt universal design standards

Modify building regulations and policies for new and existing residential structures that meet the principles and features of “universal design”. These design standards increase the

adaptability and appeal of structures to people of all ages and abilities, including the increasing elderly population.

“Universal Design and green design are comfortably two sides of the same coin but at different evolutionary stages. Green design focuses on environmental sustainability, Universal Design on social sustainability.”⁸

Embracing both sustainable features and universal design encourages a more adaptable, energy-efficient building, thus, resulting in a longer lifespan and smaller carbon footprint.

4.4 Adapt existing buildings for low income housing.

Adopt regulations and provide incentives for retrofitting of existing structures for energy efficiency and adaptive reuse, including low- and medium-income housing. See the Land Use section for further information.

Example: Build housing at declining malls. [101 Uses for a Deserted Mall](#). New York Times. April 4, 2009.

Resource: The APA Washington Chapter 10 Big Ideas website includes a table showing Zoning Incentives for Affordable Housing. This document cites examples from 9 different cities in Washington who are taking action on affordable housing. This information can be found at: <http://www.washington-apa.org/foster-social-equity>

⁸ Institute for Human Centered Design; Adaptive Environments.

5.0 - Climate Migrants

Provide for the needs of the projected population influx due to climate change. New residents need to feel welcome in the community and may need social services to adjust to their new location. Other needs will include housing, employment, and schools. Planners can help to meet these challenges in a coordinated, organized manner within their individual jurisdictions.

Some of the challenges presented by the arrival of climate migrants include:

- Provision of social services to new residents without sacrificing services to existing populations,
- Offering temporary or permanent housing to the migrants,
- Locating new development or redevelopment sites in locations outside of areas subject to climate-related and other disasters.

5.1 Plan for climate-related migrants

Encourage local officials and agencies to plan for the temporary and permanent housing, employment, and social services needed by climate-related migrant through a coordinated plan at state and local levels. Encourage opportunities for public input to this plan.

Additional Sources

- Adapting to Rising Tides: Social Equity. San Francisco Bay Conservation Commission. <http://www.adaptingtoringtides.org/portfolio/equity/>
- American Planning Association. Policy

Guide on Planning and Climate Change. Download document at: <https://www.planning.org/policy/guides/pdf/climatechange.pdf>

Project Example

Sustainability Plan, [City of Vancouver, Washington](#), includes social equity. The City of Vancouver developed a sustainability plan that outlines the city's sustainability principles, goals, and strategies. The Green Ribbon Panel, composed of appointed citizens and city directors, was created in 2007 to establish the vision, mission, and principles guiding the plan. The draft plan, *Creating a More Sustainable Vancouver*, includes social equity as one of the five guiding principles in which it states: "Social and cultural equity and diversity contribute to a thriving and vibrant economy and environment." Social equity is also one of the nine major goals in which the plan identifies indicators to monitor the status of each goal.

Resources for Affordable Housing

Puget Sound Regional Council's Housing webpage and Housing Innovations Program <http://www.psrc.org/growth/housing/> <http://www.psrc.org/growth/housing/hip/>

A Regional Coalition for Housing's (ARCH) Housing 101 Workbook <http://www.archhousing.org/resources/housing-101-workbook.html>

Housing Development Consortium's Resource webpage

<http://www.housingconsortium.org/resources/>

Expanding Housing Opportunities through Inclusionary Zoning: Lessons from Two Counties. See website at: http://www.huduser.org/portal/publications/affhsg/HUD_496.html

Developing Choice Neighborhoods: An Early Look at Implementation in Five Sites - Interim Report. The overarching goal of the Choice Neighborhoods program (Choice) is to redevelop distressed assisted housing projects and transform the neighborhoods surrounding them into mixed-income, high-opportunity places. Report available at: http://www.huduser.org/portal/publications/econdev/choice_neighborhoods_interim_rpt.html

What is the legal framework for inclusionary zoning? (MRSC) <http://mrsc.org/Home/Research-Tools/Ask-MRSC-Archives/Planning.aspx#What-is-the-legal-framework-related-to-establishin>

MRSC's webpage on Affordable Housing Ordinances / Flexible Provisions <http://www.mrsc.org/subjects/planning/housing/ords.aspx>

Inclusionary Zoning – What is it? Policy Link at: <http://policylink.info/EDTK/IZ/>

Seattle's Affordable Workforce Housing Website <http://www.seattle.gov/council/issues/affordablehousing/default.html>

Cornerstone Draft Report on Best Practices and Policy Options for City of Seattle "Policy Options for Refining

Seattle's Incentive Zoning Program"

Download document at:

http://clerk.seattle.gov/~public/meetingrecords/2014/plus20140721_1d.pdf

DRA Economic Analysis of Seattle's Affordable Housing Incentive Program

Download document at:

http://clerk.seattle.gov/~public/meetingrecords/2014/plus20140721_1b.pdf

Otak/Peninger Report Affordable Workforce Housing for the Seattle City Council: A Survey and Analysis of Best Practices in 12 Jurisdictions. Download document at:

http://clerk.seattle.gov/~public/meetingrecords/2014/plus20140625_1a.pdf

NOTE: Additional resources can be found on the APA Washington Chapter Ten Big Ideas website under Social Equity. http://www.washington-apa.org/assets/docs/2015/Ten_Big_Ideas/15_%20resources%20for%20affordable%20housing.pdf