



# Striving for Inclusion

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## Addressing Environmental Justice for Forest Service NEPA

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## Purpose and Organizational Summary

The Executive Order on Environmental Justice 12898 (Clinton 1994) provides the Forest Service with extraordinary opportunities to contribute to healthy communities. The origins of the executive order lie in reducing the potentially disproportionate negative impacts of Federal programs on minority and low-income communities. Since it was signed by President Clinton in 1994, each Federal agency has made environmental justice part of its mission (CEQ 1997, p. 1). On the 20<sup>th</sup> anniversary of the executive order, President Obama proclaimed, “By effectively implementing environmental laws, we can improve quality of life and expand economic opportunity in overburdened communities” (Obama 2014). In the proclamation, the President challenges Federal agencies to identify, aid, and empower low-income and minority communities. The Forest Service is well-positioned to meet the President’s challenge. This Environmental Justice Guide provides tools to reach the new environmental justice goals.

Each Federal agency is required to make environmental justice part of its mission (CEQ 1997, p. 1). The National Environmental Policy Act (NEPA) and the forest planning process are the primary ways the Forest Service incorporates environmental justice into its activities. This guide provides up-to-date instruction for addressing environmental justice under NEPA. A companion guide (Periman and Grinspoon 2014) addresses environmental justice under the 2012 Planning Rule (USDA Forest Service 2012). The information presented in both guides is consistent with U.S. Department of Agriculture (USDA) departmental regulations (USDA 1997), the Council on Environmental Quality’s (CEQ) Environmental Justice Guidance Under the National Environmental Policy Act (CEQ 1997), and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low Income Populations (59 FR 7629, February 16, 1994) (Clinton 1994).

According to the USDA departmental regulations, “environmental justice means that, to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are rendered on, are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by, government programs and activities affecting human health or the environment.” The CEQ provides specific guidance on environmental justice under NEPA stating: “Each Federal agency should analyze the environmental effects, including human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA.”

This guide is designed for Forest Service interdisciplinary team (IDT) members, responsible officials, and other staff involved in preparing NEPA documents. Responsible officials and IDT leaders are accountable for identifying and addressing environmental justice concerns; all IDT members are also accountable for applying relevant statutes and executive orders (USDA Forest Service 2008). The guide helps responsible officials identify potential environmental justice populations and the concerns of the populations early in the project development process. Additionally, it explains the steps in analyzing the potential impacts of management decisions on environmental justice populations and the process for identifying mitigation measures.

The guide is organized into two sections. The first section provides an introduction with definitions and explanations of Forest Service environmental justice policy. The second section offers information about environmental justice analysis in the NEPA process. It includes

instruction related to scoping and meaningful involvement of environmental justice populations; defining the project area and the affected environment; developing alternatives and mitigation measures; determining environmental consequences and disproportionately high and adverse impacts; and documenting the decision.

## Section I. Introduction and Background

Incorporating environmental justice considerations into the NEPA process helps make Forest Service resources and programs accessible to all Americans, regardless of race, economic status, or ethnicity. Moreover, several laws, executive orders, and policies direct the Forest Service to consider environmental justice when completing plans and projects. Incorporating environmental justice in the NEPA process is critical to achieving the goals of the environmental justice executive order and the mission of the Forest Service.

### A. Defining Environmental Justice

As stated above, the Forest Service defines environmental justice in accordance with USDA departmental regulations (USDA 1997). Environmental justice includes the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (U.S. EPA 2013).

#### **Environmental Justice Population**

An environmental justice population is a group of people that meets the criterion for low-income or minority under Executive Order 12898 (Clinton 1994). An environmental justice population may be both low-income and minority. See Section I-D for instruction on determining the presence of environmental justice populations in project areas.

#### **Fair Treatment**

Fair treatment means that environmental justice populations do not bear a greater burden of environmental harms and risks than the general population from Forest Service programs and policies.

#### **Meaningful Involvement**

Meaningful involvement has four parts:

1. Potentially affected environmental justice populations have opportunities to participate in decision-making processes affecting their environment or health;
2. The contributions of environmental justice populations may influence the agency's decision;
3. The concerns of all participants are considered in the decision-making process; and
4. The decision makers seek out and facilitate the involvement of environmental justice populations (U.S. EPA 2010).

### B. Defining Environmental Justice Concerns

An environmental justice concern is generally defined as:

- A potential for disproportionately high and adverse impacts on minority and/or low-income populations associated with a proposed action.

- A lack of fair treatment, or meaningful involvement of minority and low-income populations in the planning process (CEQ 1997).

By identifying environmental justice concerns early in the NEPA process, the IDT will be prepared to describe its efforts to achieve meaningful involvement and address environmental justice concerns during the development of the proposed action in compliance with applicable requirements.

### C. Forest Service Environmental Justice Policy

Executive Order 12898 and USDA departmental regulations provide the framework for considering environmental justice in NEPA. The memorandum accompanying the executive order identifies four important ways to consider environmental justice under NEPA; these items outline the Forest Service environmental justice policy.

1. Federal agencies are required to analyze the environmental effects, including human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA.
2. Mitigation measures identified as parts of an environmental assessment (EA), a finding of no significant impact (FONSI), an environmental impact statement (EIS), or a record of decision (ROD), should, where feasible, address significant and adverse environmental effects of proposed Federal actions on minority populations, low-income populations, and Indian tribes.
3. Each Federal agency must provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of public meetings crucial documents, and notices.
4. Review of NEPA compliance... must ensure that the lead agency preparing NEPA analyses and documentation has appropriately analyzed environmental effects on minority populations, low-income populations, or Indian tribes, including human health, social, and economic effects (CEQ 1997, pp. 4–5).

In the NEPA process, departmental regulations strongly recommend that agencies make robust efforts to encourage members of low-income and minority populations to help develop and comment on possible alternatives. When environmental justice populations are present, efforts would include organizing public meetings to facilitate public input on the alternatives by these populations. Agencies should also notify interested or affected parties of the availability of draft NEPA documents and encourage comment. NEPA documents provide important opportunities to demonstrate how concerns raised by minority and low-income populations during the scoping process have been considered in the development of alternatives as well as to provide opportunities to encourage additional input (USDA 1997, p. 31).

In addition to the project and forest planning NEPA process, Forest Service leaders are encouraging other ways of contributing to the well-being of low-income and minority populations, as demonstrated by ongoing contributions being made by State and Private Forestry, Research and Development, and other programs with Forest Service partners. Forest Service researchers address environmental inequities, such as disproportionate tree cover and access to green space, as well as the vulnerability of some groups to climate change and other hazards. Agency decision-support tools such as Urban Tree Canopy and Stew-Map direct tree planting

efforts and stewardship activities to areas most in need. Research partnerships support environmental education, green jobs, and the development of community gardens (USDA Forest Service, R&D 2013). For example, in partnership with the Million Tree NYC Campaign, a joint initiative of the New York City Department of Parks and Recreation and the nonprofit New York Restoration Project, the Forest Service has invested \$2 million into a program that is stimulating the economy by financially empowering low-income residents; enhancing the urban environment through restoration of trees and forests; and improving science-based understanding of the impacts of green jobs programs as pathways out of poverty (USDA Forest Service, NRS, no date).

## D. Defining and Identifying Minority and Low-Income Populations

Defining minority and low-income populations is vital to undertaking environmental justice analysis. USDA departmental regulations provide definitions of these terms (USDA 1997). Guidance is provided here on defining the terms minority and low-income both from departmental regulations and from the CEQ (CEQ 1997). Step-by-step instructions on using these definitions are then provided to help identify environmental justice populations in the project area.

### Minority Populations

The USDA departmental regulations define minority as “a person who is a member of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic” (USDA 1997, p. 2).

In its direction on environmental justice in NEPA, the CEQ defines a minority population as:

1. A readily identifiable group of people living in geographic proximity with a population that is 50 percent minority. The population with a 50 percent minority may be made up of one minority or a number of different minority groups; together the sum is 50 percent.
2. A minority population may be an identifiable group that has a meaningfully greater minority population than the adjacent geographic areas, or may also be a geographically dispersed/transient set of individuals such as migrant workers or Native Americans (CEQ 1997).

For NEPA analysis, the Forest Service recommends the second approach, as the more inclusive of the two approaches: identify groups that have meaningfully greater minority populations than adjacent geographic areas. Small-scale minority communities, towns, villages, or American Indian reservation lands, may be located near or adjacent to project areas. Such groups or communities may be small, with highly concentrated minority populations, located within larger counties that are predominantly non-minority. Using CEQ’s 50 percent recommendation may not uncover such communities by using county-level statistics but these minority communities may be vulnerable to disproportionate negative impacts of projects.

Identifying meaningfully greater populations means making efforts to measure the study area population in relation to the general area population. A difference of more than 5 percent between the study area and the surrounding geographic area may indicate a

minority population. The following procedure assists in uncovering meaningfully greater minority populations relative to the surrounding population.

1. Select the appropriate geographic unit of analysis for the geographic unit surrounding the project area.
  - a. Carefully choose a jurisdictional boundary, such as a county or census block, for the appropriate geographic unit of analysis.
  - b. Select geographic units of analysis so that they do not artificially dilute potential environmental justice populations. Well-chosen geographic units enable the identification of smaller pockets of environmental justice populations.
2. Use the recommended 5 percent threshold or set a different threshold for meaningfully greater based on local conditions. Document the rationale for the choice.
3. Select the appropriate reference geographic unit; in most cases project-level NEPA analysis uses a county, multi-county area, or State. Use the reference unit as a comparison to the study area.
4. Compare the percentage of minorities within the selected geographic unit of analysis to the percentage of minorities in the reference geographic unit.
5. If the percentage of minorities in the study area is meaningfully greater than that of the reference geographic unit, then disclose the presence of the environmental justice population.
6. Display the population in map and table formats.
7. Provide justification for the selection of the geographic unit of analysis, threshold, assumptions, reference unit, and any other methods used for the minority status determination.

Data for measuring minority populations are primarily derived from the U.S. Census, American Community Survey, or other census surveys. The Forest Service uses the Economic Profile System–Human Dimension Toolkit (EPS-HDT) (Headwaters Economics 2013) to collect and summarize needed demographic information. See the EPS-HDT Measures, Summary, and Demographics reports for specific environmental justice analysis. These reports compile demographic data, including data on minority status and ethnicity at various scales. Contact a Forest Service regional social scientist or economist for assistance with EPS-HDT.

In sum, this guide recommends identifying minority population as groups having a 5 percent greater minority population than the county. In some cases, however, discrete minority populations may be present in the project area, but not revealed using these methods. Such groups are more appropriately defined as neighborhoods, small villages, tribal lands or communities, unincorporated towns, or census blocks. This guide recommends inclusivity when undertaking analysis to reveal potential environmental justice populations. Above all, use local knowledge and common sense in choosing meaningfully greater thresholds and reference communities.

### **Example: Meaningfully Greater Minority Population**

Here is an example of an identifiable group that has a meaningfully greater minority population than the adjacent geographic area. The example shows the importance of choosing the appropriate reference community.

A study area in Colorado has a minority population of 32 percent. The total minority population of the United States is 36.3 percent; the total minority population of the Colorado is 30 percent (2010 Census). The study area's minority population is 4.3 percent lower than that of the United States; and the study areas' minority population is only 2 percent greater than that of the State of Colorado. This study area does *not* have a meaningfully greater minority population when compared to the United States and the State populations.

Using the *county* as the reference geographic unit, however, produces a different outcome. The total minority population of the county within which the study area is located is 10 percent. The study area's 32 percent minority population is 22 percent *more* than that of the county, which is meaningfully greater. The county is usually a reasonable geographic unit to use when looking for environmental justice populations.

## Low-Income Populations

According to CEQ, a low-income population is a community or a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect (CEQ 1997). USDA departmental regulations (USDA 1997, p.2) state that low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Census Bureau's annual current population reports (Series P-60) on income and poverty.

The U.S. Census Bureau (U.S. Census Bureau 2013) defines low-income populations by the percentage of people living below poverty in a given area, which is consistent with the CEQ's environmental justice guidance.<sup>1</sup>

- Low-income status is determined by comparing annual income to a set of dollar values called poverty thresholds that vary by family size, number of children, and age of householder. If a family's before-tax money income is less than the dollar value of their threshold, then that family and every individual in it are in poverty. For people not living in families, poverty status is determined by comparing the individual's income to his or her poverty threshold.
- A low-income population is a readily identifiable group of persons living in geographic proximity at or below the thresholds set by the Census Bureau or guidelines set by the Department of Health and Human Services (U.S. DHHS 2013). Poverty thresholds are the "Dollar amounts the Census Bureau uses to determine a family's or person's poverty status." In 2013, the poverty guideline for the 48 contiguous States and the District of Columbia is \$11,490 for a one-person household and \$23,550 for a four-person household.

To identify potential low-income populations in study areas, follow these steps using the same geographic areas defined above for the minority analysis:

1. Compare the median household income in the selected geographic unit of analysis to the poverty threshold or guideline.
2. If the median household income for the selected geographic unit is at or below the poverty threshold or guideline, document a low-income environmental justice population.
3. Display the identified population in map and table format.
4. Provide justification for the selection of data sources, any assumptions, and other methods that were used to make the low-income status determination.

Use the EPS-HDT Measures, Summary, and Demographics reports to compare socioeconomic data, such as employment, income, and poverty levels for the project area to the poverty threshold. To better understand poverty in your project area, review the EPS-HDT Non-Labor Income Report, which provides statistics on poverty-related transfer payments such as Medicaid and welfare. Some States and counties collect reliable data that may contribute to local analysis.

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<sup>1</sup> For tables showing Department of Health and Human Services guidelines for poverty, see the [Federal Register notice](#) (U.S. DHHS 2013). For more information also see "How poverty is calculated in the ACS" (U.S. Census Bureau 2013).

### **Example: Determining a Population in Poverty**

Here is an example of how to determine a population in poverty. If the percentage of people living below poverty in the State is 20 percent and the percentage of people living below the poverty level in the study area is 25 percent, then document the presence of a low-income environmental justice population. If the percentage of people living below the poverty level in the State is less than 20 percent, this does not preclude the existence of a low-income population in the study area. The use of common sense and local knowledge may indicate the presence of a low-income population. Common sense and local knowledge are valid data. For example, an American Indian tribe or a migrant community may constitute an environmental justice population even though the population might not be reflected in census data for measuring poverty.

If an environmental justice population is identified, include them in the NEPA process. If the data and analysis results do not indicate minority or low-income populations within the project area, document the consideration and analysis for the file. NEPA analysis may proceed without additional environmental justice consideration with approval of the responsible official. The IDT needs to document the approach and the analysis taken to identify environmental populations in the project record.<sup>2</sup>

### **Environmental Justice and Tribal Consultation**

When working in areas that include federally recognized tribes, remember that while tribes do fall into a minority category as defined by environmental justice, and many times they may also be considered low-income, consideration of tribes within the requirements of Executive Order 12898 does not replace the agency's responsibility to conduct government-to-government consultation. This guide is intended to apply to environmental justice concerns affecting federally recognized, State-recognized, and non-recognized tribes; individual tribal members, including those living off-reservation and Alaska Natives; and Native Hawaiians.

The Federal Government has a trust responsibility to federally recognized tribes; the Forest Service, like other Federal agencies, must act consistently with the Federal trust responsibility when taking actions that affect tribes. Part of this responsibility includes consulting formally with tribes and considering their interests when taking actions that may affect them or their resources. How and who completes this consultation process is the subject of Executive Order 13175 (Clinton 2000).

Some tribes may prefer to participate only in the more formal and required consultation process and may not want to have a parallel effort with the environmental justice outreach. In some cases, the environmental justice effort will give members of a tribe living outside a reservation or maybe having disagreement or different opinions than the formal tribal

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<sup>2</sup> 40 CFR 1502.24 provides direction for the use of information and scientific data: "They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix." See also 40 CFR 1505, NEPA and Agency Decision-Making, section 1501.1, Agency Decision-Making Procedures: ". . . (c) Requiring that relevant environmental documents, comments, and responses be part of the record in formal rulemaking or adjudicatory proceedings. (d) Requiring that relevant environmental documents, comments, and responses accompany the proposal through existing agency review processes so that agency officials use the statement in making decisions."

government an opportunity to express their issues or concerns. It is important to identify that tribal populations exist in a study area and reach out to them as environmental justice populations, but understand that such actions do not take the place of the formal government-to-government consultation that is required for federally recognized tribes.

## Section II. Environmental Justice and the NEPA Process

### Introduction

This section outlines steps for integrating environmental justice into the NEPA process—public involvement, issue identification, development of alternatives, analysis, findings, and the decision document. Early in the NEPA process, responsible officials establish priorities, communicate expectations to the IDT and the public, and determine the appropriate scope of analysis and public involvement. Responsible officials play key roles in ensuring that IDTs incorporate environmental justice implications of proposed project activities into environmental analysis. Consider environmental justice at the following points highlighted in the flow chart of the NEPA process (fig. 1). The flowchart depicts actions to consider related to environmental justice populations and concerns. Proper analysis and documentation are important to complete throughout a NEPA process.

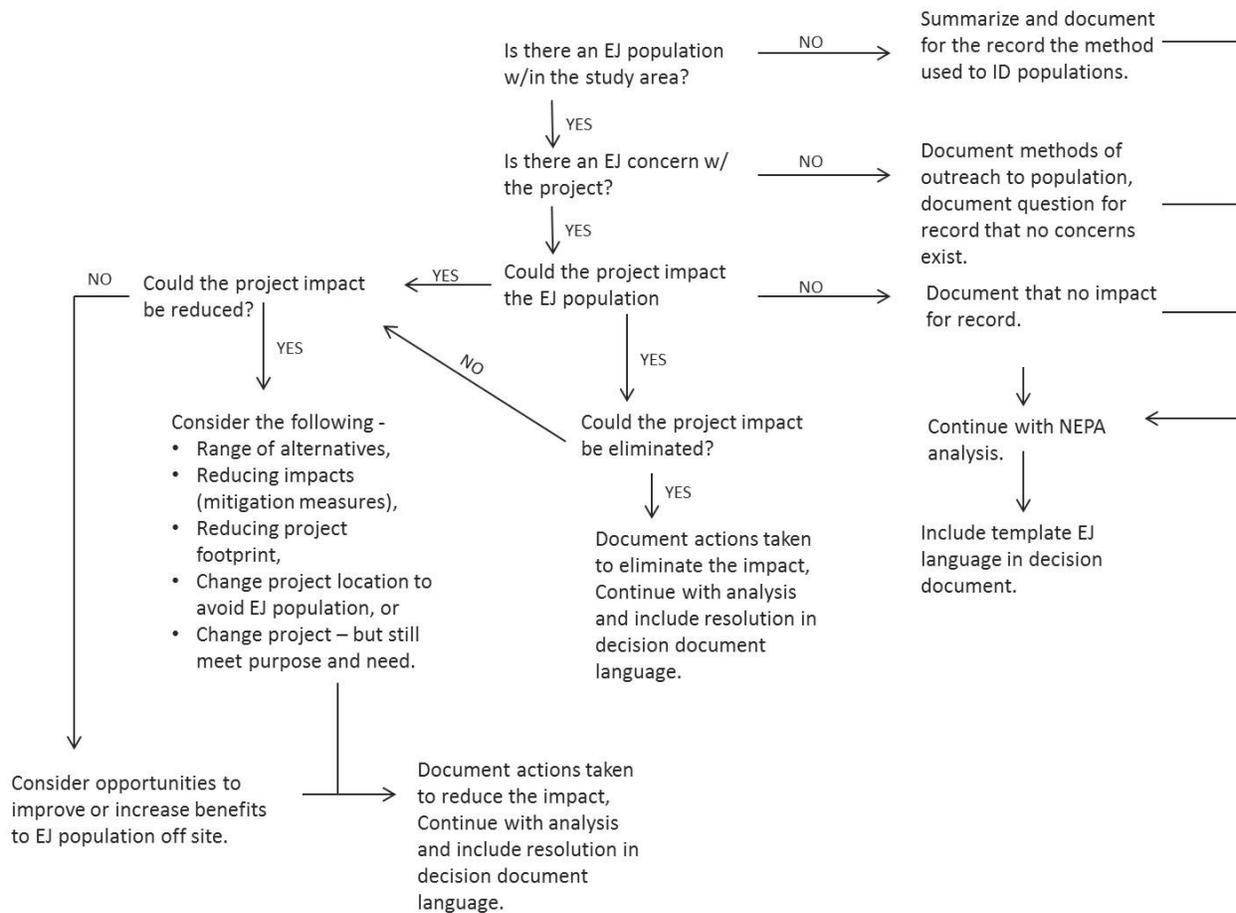


Figure 1—Environmental justice steps in the NEPA process.

Responsible officials, IDT leaders, and team members work together to include minority and low-income populations in the NEPA process. Based on the outcome of public participation and the specific concerns of environmental justice populations, IDT members may complete analyses to support alternative design or may design mitigation measures to address concerns.

The NEPA triangle (fig. 2) outlines how the Forest Service uses the NEPA process within the context of agency decision-making. The left-side of the triangle shows proposal development, the right-side shows the NEPA process, and the bottom of the triangle shows implementation and monitoring and evaluation. Public involvement is illustrated with arrows pointing at all three sides of the triangle, because it is essential to providing the information necessary for making responsible land management decisions, making public involvement integral to the NEPA process. The triangle is a tool to assist in demonstrating how environmental justice fits into the NEPA process.

As stated in CEQ guidance (CEQ 1997, p. 8), environmental justice issues may arise at any step of the NEPA process. Consider these issues, which encompass a broad array of impacts covered by the NEPA process, at each and every step of the process.

Environmental justice issues may also arise in the forest planning process (see companion guide, *Addressing Environmental Justice Under the 2012 Planning Rule* [Periman and Grinspoon 2014]). In both forest planning and project-level NEPA, environmental justice concerns may arise from impacts on the natural and physical environment, such as human health or ecological impacts on minority populations, low-income populations, and Indian tribes; or from interrelated social and economic impacts. Continuous monitoring of environmental justice populations identified in forest planning will reveal opportunities to reach out to these populations.

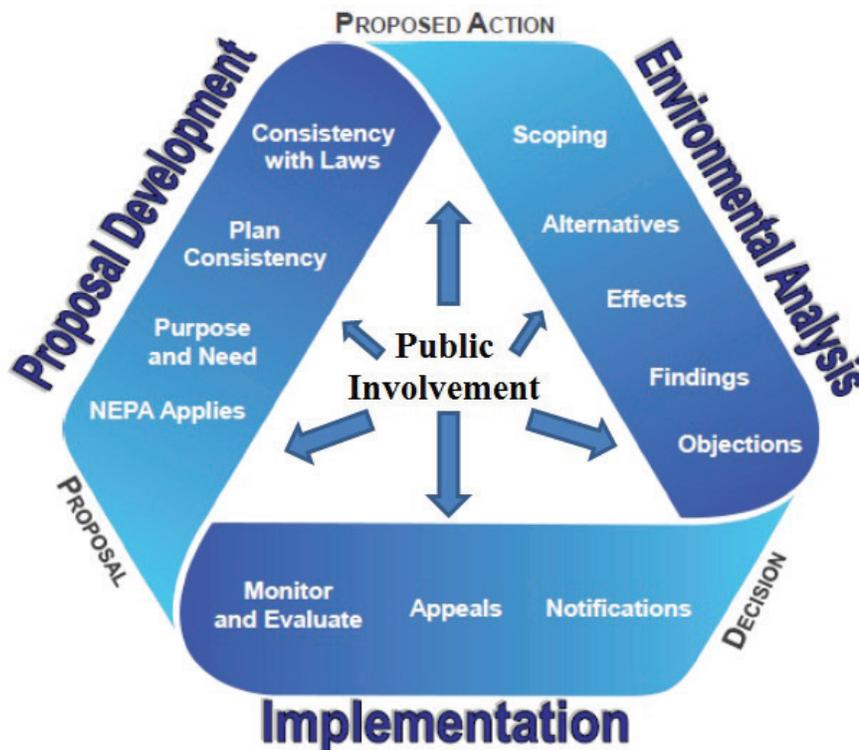


Figure 2—The NEPA triangle.

## A. Proposed Action

If an environmental justice population is identified within the study area, additional efforts should be made to determine whether the members of environmental justice populations have concerns with the proposed action. A proposed action may involve an environmental justice concern if it has the potential to:

- Lead to disproportionately high and adverse impacts on minority or low-income populations;
- Exacerbate existing disproportionately high and adverse impacts on minority and low-income populations (for example, prescribed burns may increase air pollution in an area with high low-income populations and high asthma rates);
- Present opportunities to address existing disproportionately high and adverse impacts on minority and low-income populations; for example, suggest methods for increasing access to local fuel wood supply.

Consideration of environmental justice populations while developing proposed actions or a forest plan helps identify early in the process those conditions that can create benefits for a population or could be avoided to prevent future environmental justice concerns. Proactive knowledge of these conditions allows projects to be developed with consideration of an environmental justice population or concern in mind and enables work to improve conditions for that population through the use of Forest Service programs and resources.

## B. Scoping and Meaningful Involvement

Reliance on routine practices and the minimum notice and comment requirements outlined in Forest Service NEPA regulations may not be enough to achieve meaningful involvement of environmental justice populations; promotion of meaningful involvement often requires greater efforts to connect with environmental justice populations. The IDT may go beyond the traditional methods of scoping and defining “interested and affected” individuals to include environmental justice populations affected by the proposed action. If the members of the environmental justice populations are not English speakers, then the IDT Team should use translators for written and verbal communication. If the members of the environmental justice population are limited in their English proficiency, then communication with them should comply with Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency.”

Points in the NEPA process that are useful in engaging environmental justice populations beyond scoping include:

- Defining the affected environment, with use of local knowledge of the area to understand and define baseline conditions;
- Identifying and defining environmental justice issues and concerns, with support from the environmental justice population, so that specific concerns can be well-defined and clarified;
- Developing alternatives and mitigation measures to the proposed action;
- Determining potential impacts and disproportionate high or adverse impacts (see section E, below) by including the environmental justice population’s input, with recognition of how alternatives and mitigation measure may alleviate their concerns; and

- Identifying appropriate monitoring measures for environmental justice populations.

### **Use of Technology Tools and Other Non-Traditional Options**

The best way to engage some environmental justice populations may be through Web-based information technology tools, particularly those programs that are more user-centered, collaborative, or interactive. On the other hand, some environmental justice populations may not have access to the most up-to-date communication tools. Some remote towns and villages disseminate information using local radio stations, local newspapers, and posters at grocery stores or trading posts; they may also use village and community centers, church bulletins, and chapter meetings. Many times, reaching parents of school-age children may be facilitated through schools. Consider the following challenges and opportunities in meaningfully engaging environmental justice populations in ways that may be different than those presented by a general public involvement effort:

- Conveying environmental justice concerns in ways that are tailored to the language, work schedules, and transportation challenges of each community. If you have a minority population whose members do not speak or read English, consider having meetings and documents translated as appropriate.
- Bridging cultural and economic differences that may affect participation. This may include offering child care, holding meetings at several times to allow shift workers to attend, and allowing local leaders to preside over meetings.
- Using communication techniques that enable more effective interaction with other participants.
- Developing partnerships on a one-to-one or small-group basis to ensure representation.
- Developing trust between the government and potentially affected populations.
- Investing time to enhance community capacity to effectively participate in future decision-making processes.

Consider a broad array of opportunities to integrate environmental justice populations and their concerns into the NEPA process. To ensure meaningful involvement, consider and document the following:

- Reaching out to identified environmental justice populations to determine the best methods, times, and locations to engage in public involvement.
- Engaging interested leaders and members of environmental justice populations in the development of alternatives or mitigation measures to address their concern(s).
- Considering their role in future projects that the agency may have planned, or activities/projects the environmental justice population may find beneficial to their future goals.

### **Values of Proper Engagement and Support**

Failure to properly engage and support an environmental justice population during a NEPA process can create an environmental justice concern where one did not previously exist. This concern may arise if the opportunities for meaningful involvement of environmental justice populations were not provided during the development of alternatives and mitigation measures, neglecting to understand what concerns the environmental justice populations might have related

to the proposed action. It is often not realistic to expect meaningful public involvement if the NEPA process has not targeted public involvement efforts to environmental justice populations, so think broadly about how a proposed action may affect an environmental justice population in the study area to ensure that sufficient opportunities for meaningful involvement during the NEPA process are provided.

By using existing resources from public affairs staff and/or regional social science staff, the IDT can prepare and implement a detailed public involvement plan that considers the specific needs, timing, capacities, cultural practices, or languages of the environmental justice population.

In some cases, the IDT may document that even though there are environmental justice populations within the project area, they find no environmental justice concerns with the proposed action. Documentation of potential environmental justice concerns or lack of concern should include:

- The proximity of the proposed action to the environmental justice population;
- The number of acres that may be affected near the environmental justice population;
- The nature and amount of pollutants/disturbance/activity to take place near the environmental justice population;
- Unique exposure pathways involved and subsistence use of the environmental justice population; and
- Outreach and public involvement activities or events for environmental justice populations in the project area.

If it appears one or more of the above factors, or other factors, are relevant to the proposed action, consider whether the proposed action involves disproportionately high and adverse impacts on minority and low-income populations and thus raises an environmental justice concern. If the potential impact is likely to be similar for all populations in the project area, there may still be an impact to be considered, but it may be proportionate throughout the project area population and therefore not specifically an environmental justice concern.

The responsible official considers whether or not environmental justice concerns will need further evaluation based on this initial assessment. It is important to document the responsible official's consideration, including the rationale on which conclusions are made. This documentation should become part of the project record and will demonstrate that the project complies with Executive Order 12898 (Clinton 1994) and environmental justice policies.

### C. Affected Environment/Study Area

The first step in incorporating environmental justice into the NEPA document is describing the social and economic attributes of the project area. The size and location of the study area is defined by the potential impacts and cumulative impacts of the proposed action. Include justification for why this distance was selected. A map of the study area can be included in the documentation.

1. Describe the geographic scale (e.g. block, county) that was selected for the study area and the data, and provide justification for why that scale was chosen.
2. Collect the majority of social and economic information from the EPS-HDT (Headwaters Economics 2013). The EPS-HDT data can be supplemented with other data sources when available or necessary, including: interviews with

- affected community members, State or Federal government data, reliable local government data, peer-reviewed literature, or newspaper articles.
3. Analyze and display data, describing any relevant ecological, aesthetic, historical, cultural, economic, social, or health data for potential direct, indirect, or cumulative impacts related to environmental justice concerns.
  4. Describe and display any vulnerability that the environmental justice population may have relevant to the proposed action and alternatives. This will serve as your environmental justice baseline for analysis. Special vulnerabilities include, but are not limited to the following:
    - a. Health vulnerability (e.g., asthma—prescribed burning);
    - b. Social and economic vulnerability (e.g., low income/barter system—access to fuel wood); and
    - c. Cultural vulnerabilities (e.g., land grant communities—access to grazing permits).

## D. Developing Alternatives

Responsible officials determine how environmental justice concerns are addressed in the NEPA process, and whether an alternative or mitigation measure(s) will be developed to address concerns. Document the decisions of the responsible official for the project record as they relate to addressing individual environmental justice concerns.

Addressing environmental justice concerns can be done by developing components of alternatives that eliminate the concern. For example, a concern with fuel wood supplies could be addressed by adding additional treatment units near a road system; or travel management concerns of local access could be addressed by changing road closures to allow roads nearest to communities to remain open and to close roads farther away in the back country.

If environmental justice concerns cannot be addressed through alternative development, consider mitigation measures to reduce or eliminate the potential negative impacts. Mitigation measures are designed to avoid, reduce, eliminate, resolve, or compensate for undesirable effects from the proposed action. Examples of some mitigation measures include allowing families with asthma concerns to be relocated at Forest Service expense during a prescribed burn treatment near their home, or supplying the local library with free passes to a new recreation area fee area near the local community. Such measures allow the project to continue but minimize the overall adverse impact to the environmental justice population.

Mitigation measures may be applied outside the actual study area to benefit local communities, such as scholarship funds or monetary support of a community center. These measures would be completed when direct actions on the study area cannot be taken to mitigate specific resource concerns. Such off-site measures are generally considered as a last option; it is best to work to directly mitigate impacts of a project before considering non-local measures.

Given that the framework for identifying and addressing environmental justice concerns is part of the overall NEPA process, it is important to revisit, as appropriate, the evaluation of environmental justice concerns in later stages of the NEPA process as information and ideas develop. If additional alternatives are developed to address other resource issues, you will need to consider the possibility that those new alternatives may raise *new* environmental justice concerns and new reasons to reach out to your environmental justice populations to make sure no additional concerns have been introduced.

## E. Determining Environmental Consequences

If the responsible official identifies an environmental justice concern to address in the NEPA analysis—and if the IDT have investigated the concern, gathered relevant information, discussed the issues with the environmental justice population(s), and developed options for resolving the concern—then the next step is to determine the extent to which the proposed alternatives and/or mitigation measures would affect or address the environmental justice concern. The IDT will need to analyze differences and consider the effectiveness of mitigation measures.

To determine environmental consequences related to environmental justice, the IDT generally compares the estimated or current baseline (no action) to the potential impacts or activity under each alternative in terms of the identified environmental justice populations. The analysis should cover the full range of options considered to address those potential impacts and should provide a sufficient level of detail to distinguish major environmental or public health impacts across the options for the environmental justice population.

### What Are Disproportionately High and Adverse Impacts?

Disproportionately high and adverse impacts are adverse or negative impacts that are:

- Predominately borne by any segment of the population, including, for example, a minority population or a low-income population; or
- Suffered by a minority population or a low-income population and are appreciably more severe or greater in magnitude than the adverse impact that will be suffered by a non-minority population or non-low-income populations.

Many Forest Service actions will benefit the environment over the long term through habitat improvements or restoration, or will enhance public safety with fuel reduction measures. Although these are benefits, it is important to assess how minority and low-income populations are experiencing these impacts. IDTs should answer the following questions:

1. Are the resource impacts adversely affecting environmental justice populations?
2. Are the resource impacts disproportionately affecting environmental justice populations in an adverse manner when compared to other surrounding populations?
3. Is it possible to address the adverse resource impacts on the environmental justice populations through alternatives or mitigation measures?

### Assessing Disproportionately High and Adverse Impacts

The four factors summarized below will assist the IDT in assessing whether disproportionately high and adverse impacts on minority or low-income populations may be associated with the proposed action. Disproportionately high and adverse impacts may result from a combination of several, if not all, of these factors. In some circumstances, the presence of one or two of these factors alone could be sufficient to impose a disproportionately high and adverse environmental hazard on a minority or low-income population. Disproportionate impacts may also arise from factors not included here. While these factors are intended to highlight how environmental justice concerns may arise from the proposed action, they are not a required analysis. Individual proposed actions will have different potential impacts and may consider different factors; these factors are intended only to aid in the IDT's consideration of possible factors.

### **1. Unique Exposure Pathways**

An exposure pathway is the route a substance takes from its source to its endpoint. Some populations sustain unique environmental exposures because of practices associated with their culture or socioeconomic status. For example, as a cultural practice, some minority populations rely on a diet that may include subsistence fishing or farming. Subsistence diets may expose these populations to toxic chemicals, such as mercury from a fish diet or other chemicals from a diet high in contaminated vegetation. There are also non-dietary exposure pathways that may be unique to some minority populations. For example, people who practice basket weaving are exposed to toxic chemicals when contaminated materials are placed in the mouth during the weaving process.

### **2. Multiple and Cumulative Effects**

Minority and low-income populations are likely to suffer a wide range of environmental hazards, ranging from poor air quality to poor housing. Numerous empirical studies and anecdotal accounts describe minority and low-income populations that are affected by multiple environmental hazards, such as industrial facilities, landfills, transportation-related air pollution, poor housing, leaking underground tanks, pesticides, and incompatible land uses. Analyzing cumulative effects from multiple stressors allows a more realistic evaluation of a population's risk to pollutants. A chemical-specific focus to assessing environmental risk fails to account for the fact that these populations may be exposed to several different pollutants. Coordination with other entities that have projects in and adjacent to the project area is one way to determine how the proposed action fits in with other past, present, and reasonably foreseeable projects and their potential impact on environmental justice populations. Likewise, engaging the public to share the locations and impacts of past and present projects will aid in addressing the cumulative environmental justice impact of the project.

### **3. Ability to Participate in the NEPA Process**

The ability, or inability, to participate in the NEPA decision-making process may contribute to disproportionately high and adverse impacts. Because concerns or issues an environmental justice population might have with a project may not be brought forward for analysis and consideration, conditions for the population may be made worse or more difficult if issues or concerns are not mitigated or addressed. Aspects that contribute to the lack of access of a population to participate fully in the decision-making process include:

- Lack of trust,
- Availability or lack of information,
- Language barriers,
- Socio-cultural issues,
- Inability to access traditional communication channels,
- Limited time or lack of transportation to attend public meetings, and
- Limited capacity to access technical and legal resources.

### **4. Physical Infrastructure**

Physical infrastructure—such as housing condition, quality of maintenance for public buildings (such as schools), or proximity to transportation hubs—can contribute to making certain populations more vulnerable to environmental hazards.

To determine whether there are disproportionately high and adverse effects:

1. Summarize the baseline situation (no action and affected environment);
2. Summarize potential impacts of the proposed action of the environmental justice concern;
3. Disclose whether disproportionate high and adverse impacts exist within the area of impact for the proposed action;
4. List alternative components or separate alternatives to address environmental justice concerns;
5. List mitigation measures and their expected effectiveness to address environmental justice concerns;
6. Summarize potential benefits of the project; and
7. Disclose remaining disproportionately high and adverse effects on environmental justice populations, if any, and why further mitigation is not proposed.

## F. Documenting the Decision

Once the responsible official reviews the potential environmental consequences of the proposed action, alternatives, and mitigation measures, a decision document is prepared and should include the rationale for selection of alternative and mitigation measures that address environmental justice concerns. If environmental justice concerns were not able to be addressed, state so and provide rationale for why the project must continue forward. This is an important step in the process, during which revisiting with partners and environmental justice populations prior to completing a decision document may avoid unresolved issues. Under these conditions, the documentation should include any enhancement or betterments that can be provided to the community in lieu of mitigation.

During implementation of the selected alternative, the responsible official is accountable for ensuring mitigation measures or alternative components are implemented on the ground. The situation on-site should be monitored and evaluated to confirm that effects are occurring as discussed in the analysis and that mitigation measures are effective.

The responsible official should use the decision-making step as an opportunity to document how well the project addressed environmental justice concerns and what environmental justice analysis is documented through the NEPA process. The responsible official helps strengthen the decision and the environmental justice analysis by responding to the following questions while finalizing decision documents and by making sure supporting documentation related to the questions is filed in the project record.

*1. How did the public participation process provide transparency and meaningful participation for minority, and low-income, populations?*

Question #1 asks the IDT to document the proactive steps taken to meaningfully engage the environmental justice populations identified in the project area.

*2. How did the IDT identify and address existing and new disproportionate environmental and human health impacts on environmental justice populations within the project area?*

Question #2 asks the IDT to document the steps taken to identify and address disproportionate impacts on the human health and environment of these populations. This could include any investigation and characterization the IDT performed of geographic areas or populations that are likely to be most affected by the proposed action or alternatives. As part of

this evaluation, the IDT is encouraged to look at the distribution of the positive environmental and health consequences as well.

*3. How did scoping, analysis, and any ongoing public involvement influence alternatives and mitigation measures considered and the final decision?*

Question #3 asks for a description of how the analysis of impacts and the public involvement opportunities made a difference in the outcome of the alternative development or mitigation measures or why no adjustments for environmental justice concerns were made. This would include a brief discussion of how the responsible official considered the information on impacts and the concerns articulated by these populations, what actions were taken as a result, and the rationale for the decisions. This is the disclosure of potential impacts required by Executive Order 12898 (Clinton 1994).

*4. If the project activities had no impact on environmental justice populations or no environmental justice concerns, has the IDT documented the following in the project record?*

- An assessment to identify potential environmental justice populations within the study was completed and no populations were identified (therefore no environmental justice concerns exist); or
- After public involvement and analysis, a determination that the project would not involve any environmental justice concerns.

Even if the IDT and responsible official concluded there were no environmental justice concerns, the activities and analysis that led to that conclusion should be documented. It is important that pertinent documents relating to environmental justice concerns are understandable and readily accessible to the public in the project record. The decision document should clearly state the rationale for alternative selection based on the evaluation of environmental justice concerns.

## G. Opportunities for Considering Environmental Justice Concerns during Implementation

The following are opportunities for considering environmental justice concerns during project implementation.

- **Build awareness:** Let environmental justice populations know what actions the Forest Service is undertaking and why.
- **Provide information:** Make the project documents and comment process readily available in a number of formats by going beyond conventional methods. Make relevant documents easy to access. Be open and honest about the project.
- **Involve potentially affected populations and tribes in program activities:** Build a dialogue around partnerships and working towards mutual goals and bring these environmental justice populations to the table.
- **Seek feedback:** Seek opportunities to learn from public involvement, outreach and impacts analysis.
- **Be transparent:** State what was analyzed and what considerations were given.

## Last Word of Advice

Note that in the Forest Service NEPA process, once environmental justice populations are identified, the populations usually remain relatively stable over time. IDTs do not need to redo the same analysis for every project. Keep track of environmental justice populations, leave records for the IDT leader, document lessons learned, and monitor public involvement strategies that worked and those strategies that did not (and why not). It may be most efficient to design an overall public involvement strategy that can be customized for each project based on the information learned from past experiences. Don't start a new review for every project, but rather build on existing data and existing relationships.

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