

Technical Guidance for Assessing Environmental Justice in Regulatory Analysis (2023)
Draft SAB Charge Questions

Background

The main purpose of the *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis* (referred to here as the EJ Technical Guidance) is to outline analytic expectations and discuss technical approaches and methods that can be used by EPA analysts to evaluate environmental justice concerns for regulatory actions.

To best serve the agency, discussions of data, methods, and tools in the EJ Technical Guidance should allow EPA analysts to maintain an appropriate level of quality and consistency across analyses (for instance, in the questions they strive to answer), while also allowing them to tailor the EJ analysis to a specific regulatory context. The Guidance should also allow for practical limitations on time and resources that EPA analysts contend with when preparing regulatory analyses. Some of the language in the Guidance has been chosen for the express purpose of balancing best practice with flexibility to allow analysts to customize the analysis as necessary to reflect the policy, legal and administrative context.

Consistency of the EJ Technical Guidance with the best practices and processes reflected in other related EPA guidance documents is an important consideration. However, while the EJ Technical Guidance reflects best analytic practices, it does not intend to preclude new approaches, data, or methods.

Summary of Main Revisions

The EPA first published the EJ Technical Guidance in 2016 after incorporating feedback from the public and SAB review. Table 1 provide a high-level summary of the main SAB recommendations that the EPA received in its original 2015 review and how they were addressed prior to publishing the final document in 2016.

The EPA is now in the process of updating the EJ Technical Guidance to reflect the current state-of-the-science; new peer-reviewed Agency guidance on related issues; and new terminology, priorities, and direction (including Executive Orders such as 14096). Once again, it is EPA's intent to have the document robustly reviewed prior to releasing the revised version.

Below is a brief summary of the main purpose and key updates in each chapter.

Chapter 1 outlines the main objectives of the EJ Technical Guidance, including its use alongside other EPA guidance on human health risk assessment (HHRA) and economic analysis.

- **Revisions** emphasize the importance of integrating EJ into the rulemaking process early and describe the specific EJ analytic implications of new Executive Orders.

Chapter 2 defines key EJ concepts that influence analytic considerations. Previously defined terms such as EJ concerns and disproportionate largely remain unchanged from 2016 Guidance.

- **Revisions** include expanding the discussion of meaningful involvement as it pertains to analysis and updating and expanding relevant terminology.

Chapter 3 identifies three questions analysts should strive to answer when evaluating EJ concerns for rulemakings and presents overarching recommendations and best practices.

- **Revisions** include emphasizing importance of considering cumulative impacts from multiple stressors and broadening the concept of baseline beyond directly regulated stressors.

Chapter 4 discusses contributors to the uneven distribution of environmental health risks across population groups.

- **Revisions** include characterizing vulnerability as function of intrinsic and extrinsic factors; climate change as contributor to higher exposure and susceptibility; and adding differential monitoring, compliance, and enforcement as potential contributor to higher exposure.

Chapter 5 discusses how to consider EJ in the planning phase of a HHRA.

- **Revisions** include reorganizing to improve clarity and accessibility, expanding the discussion of cumulative impacts, and highlighting the possible role of participatory science.

Chapter 6 discusses the conduct of an EJ analysis: how to identify and evaluate the feasibility and appropriateness of analytic approaches; key analytic considerations; and consideration of costs and non-health effects.

- **Revisions** include highlighting how impacts from multiple stressors may interact with regulatory options; the role of preliminary analysis; expanded discussions of hotspots, underlying heterogeneity, Census data, screening tools such as EJScreen, comparison groups, and exposure/risk-based approaches; updating best practices for proximity analysis; and new sections on presenting results and on how differences in compliance/enforcement across options may contribute to EJ concerns.

Chapter 7 summarizes data and method gaps for EJ analysis of EPA regulatory actions.

- **Revisions** include an updated list of priorities based on listening sessions and interviews with EPA program office staff. EPA intends to expand this discussion to incorporate input on data and method gaps from the public, Tribes, and this Science Advisory Board panel.

Table 1: Summary of Main Recommendations from 2015 SAB Report for 2016 EJ Technical Guidance

Comments	EPA Response
<i>Topic: Definitions</i>	
<ul style="list-style-type: none"> Clarify key terms (e.g., EJ populations, susceptibility and vulnerability). Introduce terms “differential” and “disproportionate” impacts s earlier in document, along with brief description. Distinguish between differential and disproportionate impacts appropriate; clarify decision of disproportionality left to policy makers; focus on analyst’s task of characterizing differential impacts. 	<ul style="list-style-type: none"> Defined terms within the main body of the document, not just the glossary. Moved discussion earlier and simplified discussion. Clarified in early section; focused remainder of document on evaluating differential impacts.
<i>Topic: Human Health Risk Assessment</i>	
<ul style="list-style-type: none"> Direct analysts to existing EPA guidance; focus on elements specific to EJ analysis to reduce redundancy and inconsistency. Cumulative impacts is critical information, but no definition, method, or approach provided on how to consider them in assessments. Emphasize importance of including cumulative impacts from multiple stressors (chemical and non-chemical) and conditions and urges the agency to provide clearer guidance. HHRA approach may not be suitable for assessing complex EJ concerns. If HHRA continues to be model of choice for EPA, discuss its technical limitations. Consider adopting Health Impact Assessment (HIA) or other holistic approach to EJ analysis 	<ul style="list-style-type: none"> Took care to minimize duplication of other guidance documents, particularly for HHRA, but referenced them as appropriate. Added definitions and discussed importance of considering exposure to multiple stressors and cumulative concerns. Referenced EPA Planning for CRA guidance and relevance for EJ concerns; noted other guidance on CRA still underway; will update EJTG when any new guidance is available. HHRA underlies key aspects of regulatory analysis but added discussion of potential challenges of applying in EJ context. Discussed HIA, potential application and challenges applying to national rule setting.
<i>Topic: Best Practices</i>	
<ul style="list-style-type: none"> Provide specific options and examples of best practices. Decision trees, diagrams, checklists are helpful to summarize and highlight where consistency is essential. Document why EJ analysis is not feasible, appropriate or relevant. Recommendations are appropriate and reasonable but too broad; give more specifics on how to apply them. Sensitivity analyses should be emphasized more. Analysts should document why sensitivity analyses were not performed. Provide best practices for geospatial data. 	<ul style="list-style-type: none"> Expanded list of best practices and added strengths and weaknesses for main analytic approaches. Added Appendix with examples of EJ analyses from recent rules. Encourage analysts to explain why a best practice cannot be followed. Did not include prescriptive advice given need to balance data, time and statutory constraints with regulatory context, but expanded explanation and best practices. Encourage conduct of sensitivity analysis for key assumptions or parameters that may affect findings. Discussed justification of geographic unit of analysis, challenges or aggregation issues.

<i>Topic: Contributors and Drivers of EJ</i>	
<ul style="list-style-type: none"> Clarify this section, possibly with use of conceptual maps. 	<ul style="list-style-type: none"> Simplified and clarified section to highlight factors that can give rise to EJ concerns.
<i>Topic: Community Engagement</i>	
<ul style="list-style-type: none"> Emphasize importance of involving communities early when conducting EJ analysis. Reference relevant reports from EPA National Environmental Justice Advisory Council and other published studies on how to ensure more effective public participation. Important for analyses to be transparent and understandable to public. 	<ul style="list-style-type: none"> Summarized key elements of meaningful involvement in regulatory process from other EPA policies and documents. Emphasized ways meaningful involvement may inform and improve EJ analysis; reference other resources as appropriate. Discussed importance of plain language to increase transparency.
<i>Topic: Analysis of Potential EJ Concerns</i>	
<ul style="list-style-type: none"> Do not favor quantitative over qualitative analyses since both are important and useful. Add table of alternative analytical methods with citations, key assumptions, summary of strengths and weaknesses. Provide more information on selection comparison populations. Recommend EJTG provide list of “best geospatial practices” for analysts. Recommend better guidance on selection of baseline. 	<ul style="list-style-type: none"> Maintained recommendation to use quantitative information when available but added section on qualitative analysis. Added citations and strengths and weaknesses for each analytic approach. Consolidated comparison populations in one section and expanded discussion. Discussed how to spatially identify and aggregate effects; expanded discussion of methodological issues that may arise. Expanded discussion of baseline, importance of consistency with assumptions for other analyses and with EPA Economic Guidelines.
<i>Topic: Costs</i>	
<ul style="list-style-type: none"> Clarify type of costs EJTG refers to. Need guidance on when and how to evaluate distribution of costs, uncertainty in estimation. Reference other EPA guidance but highlight issues unique to EJ analyses. Clarify when cost analyses are appropriate; analysts should document basis for exclusion. 	<ul style="list-style-type: none"> Clarified they are economic costs, specifically compliance and social costs, not dis-benefits. Added discussion of when and how to consider costs from EPA Economic Guidelines; described challenges in EJ context. Expanded discussion; encouraged documentation but retained flexibility regarding when to consider costs.
<i>Topic: Data</i>	
<ul style="list-style-type: none"> Include best and most relevant data in analyses, not just most recent. Highlight data gaps in EJ analyses, as may be helpful to future analyses. Give better guidance on handling uncertainty (due to data limitations, etc.). 	<ul style="list-style-type: none"> Addressed throughout document. Encouraged analysts to identify limitations and uncertainties, data and method gaps. Added best practice to discuss key sources of uncertainty and how may influence results.
<i>Topic: Hot Spots</i>	
<ul style="list-style-type: none"> In some situations, hot spot analysis could be useful. Hot spots of most concern for EJ are specific locations with multiple risks. 	<ul style="list-style-type: none"> Added discussion of identifying and analyzing hotspots; identified methods useful for evaluating hotspots.

Charge Questions

The SAB is asked to provide advice to the Agency on updates to its EJ Technical Guidance in response to the following charge questions:

1. Please provide your overall impressions of the clarity and technical accuracy of the EJ Technical Guidance for analyzing the impacts of EPA regulatory actions on communities with environmental justice concerns of EPA regulatory actions. Are there topics that warrant more discussion? Are there any inconsistencies or inaccuracies in the way an issue or topic is discussed within or across chapters?
2. Chapter 2 discusses key definitions and the way in which meaningful involvement might inform analysis. Does this discussion provide sufficient background to analysts? Are there additional definitions that should be included?
3. Are the five overall recommendations and list of best practices in Chapter 3 reflective of sound scientific principles and the technical literature? Are there any analytic recommendations that should be added or removed?
4. Chapter 4 provides a brief overview of the contributors and drivers of greater risks and health effects from environmental stressors for population groups of concern. Does the discussion of contributors and drivers adequately reflect the state of the literature? Is it clear and technically accurate?
5. In Chapter 5, are there additional technical considerations that should be enumerated to start integrating EJ considerations into the planning phase of human health risk assessments (HHRA)? Do the scoping questions in section 5.3.2 adequately identify opportunities for incorporating environmental justice into a HHRA?
6. In Chapter 6, are the analytical considerations for assessing EJ concerns in the context of a regulatory action appropriately identified and discussed? Are there considerations that should be added or removed from the discussion?
7. For chapter 7, what do you see as the key methodological or data gaps when analyzing the impacts of regulatory actions on communities with EJ concerns? Which of these gaps do you think should be prioritized in the near- or longer-term to improve how EPA analyzes EJ impacts of regulatory actions?