| Wealth/Capital Accounting | Description | Pro's | Con's | | |
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| Economic Valuation (EV) | The process of assigning a monetary value to non-market goods or services, such as environmental resources, ecosystem services, or cultural heritage. It aims to capture the economic significance of these assets in order to inform decision-making and policy | EV results have high comparability with economic assessments, provided the context of the NELD value assessment is the same as for the economic items. "Willingness to pay" and "willingness to accept" methods can be applied to approximate values of items within a certain context. This allows the value of items, such as traditional knowledge to be expressed monetarily and weighed against other economic values like crop yields or health services within that same context | EV is conceptually incompatible with the attribute of incommensurability because it presupposes a common unit as the basis of any evaluation. This means that if the value of certain NELD items is deemed inalienable from the items themselves, then monetizing them is conceptually incoherent. Additonally, the case of NELD, "willingness to pay" (a stated preference method used in EV) is inherently biased because it is limited by the ability to pay in developing countries | | |
| Multi-Criteria Decision Analysis (MCDA) | You list different criteria (e.g., cultural importance, social impact, health), Each is scored and possibly weighted based on importance, Different policy options or losses are compared based on these scores | MCDA is compatible with the attribute of incommensurability, meaning it can be used to evaluate NELD items even when their values cannot be expressed in a common unit like money, provided that assessment criteria are chosen accordingly to include dimensions of NELD. Additonally, it is viewed as feasible for comparison with economic assessments, and offers a ton of flexibility hen defining parameters. | While comparability with economic assessments is feasible, it's not described as inherently "high" like it is for Economic Valuation. This implies that while it can be done, it must require careful structuring and the correct assessment of critera for the MCDA to align with economic metrics. | | |
| Composite-Risk Indices (CRI) | Combining different types of data (social, environmental, etc.) into a single risk index, You normalize and weight them, You combine them into a single score that reflects overall risk or vulnerability | CRI are conceptually not a limitation for incommensurability, provided that NELD indicators are included and weighted (i.e., compared) with respect to their effect on a given objective. They are also compatible with both context-dependence of value and comparison with economic assessments. | The comparability of CRI results with economic assessments is described as "feasible" rather than "high", suggesting that while comparison is possible, it may require careful structuring and clear objectives to make the comparison meaningful. They can also fail to reflect local meanings of loss, as NELD items are deeply embedded in specific cultural, spiritual, or ecological contexts that can't be easily standardized. | | |
| Qualitative / Semi-Quantitative Approaches (QSA) | Describing and evaluating loss using narratives, interviews, and partial scoring, not full numbers. | Very compatible with the attribute of incommensurability, giving them a significant advantage when dealing with values that cannot be expressed monetarily, such as the loss of cultural identity or cultural heritage. QSA are likely to yield more useful results if the purpose of the NELD assessment is to drive the design of effective adaptation measures that incorporate values like traditional knowledge, or to recognize the high importance of place identity for community well-being, leading to adaptation approaches that preserve this value. | Because qualitative assessments are often aimed at understanding processes rather than providing quantitative estimates, making the direct comparison with economic valuations can get problematic. With this in mind, QSA may not be suitable when the primary objective is to incorporate NELD into aggregate climate-risk assessments or cost-benefit analyses that demand monetized information | | |
| Three-Level Approach | Analyzing disasters on the Individual, Societal, and Environmental Levels | By dividing NELD into these distinct realms, the researchers could systematically identify and categorize a wide range of impacts that are not typically captured by market values. These categories provided a useful framework for organizing questions in the data collection checklist, covering topics such as education and well-being at the individual level, traditions and social bonds at the societal level, and biodiversity and ecosystem services at the environmental level | The categorization itself was based on feedback from preliminary visits in this specific case study in Bangladesh, and the responses gathered within these categories were subjective and limited to perceptions of local people. The researchers also acknowledged that it was difficult to address the interconnectedness of NELD when two categories overlap. | | |
| Personality Rights (Switzerland) | Swiss Civil Code Article 28: "any person whose personality rights are unlawfully infringed may petition the court for protection against all those causing the infringement. If someone wants financial compensation for a violation of personality rights, article 41 for ex-contractual tort claims (called the law of delic in Switzerland), and if they have suffered mental harm, they can request just satisfaction (another type of compensation) based on article 49 CO. For compensation, conditions need to be fulfilled: damage, causation (natural and adequate causality), illegality, and attributable misconduct (fault or negligence) | Arguing for personality rights under Swiss law allows for a comprehensive range of protection's including physical areas (right to life, freedom of movement, etc.) psychological areas (right to relationships, respect, emotional integrity), and social spheres (identity, image, etc.), which let plaintiffs claim damages for diverse climate impacts. A violation of personaility rights also provides compensation for both material and non-material harm, which works well within an NELD framework. | The most difficult part of arguing for a violation of personality rights is establishing direct and adequate causation between a companies GHG emissions and the L&D suffered by plaintiffs. With this in mind, it gets even more complex when jurisdictional challneges arise between legal interpretations and scientific findings. Additionally, scientific reports in general provide probabilistic estimates for climate change impacts, but legal systems usually demand prood of individual causation. | | |

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| Article 41 numeral 4 literals A, C, and D (Ecuador) | Article 41 numeral 4 literals a, c, and d Law of Jurisdictional Guarantees and Constitutional Control, the plaintiffs are entitled bring this action against "[a]ny act or omission of natural or juridical persons of the private sector, when at least one of the following circumstances occurs: (a) They provide improper public services or services of public interest; [...] (c) It causes serious damage; (d) The affected person is in a state of subordination or defenselessness before an economic, social, cultural, religious or any other type of power." This law allows lawsuits against private actors (like companies) if at least one of the following is true:<br>(a) They provide public services improperly or provide services of public interest.<br>(c) They cause serious damage.<br>(d) The victims are in a state of defenselessness or subordination — economically, socially, culturally, etc. | Within this framework, constitutional and human rights law are put at the forefront, allowing for the recognition of TEK and other aspects of NELD. Instead of monetary reperations, payouts could be remedied through seed banks, water and food security infrastructure, and the revival of traditional medicine. This law enables direct liability for multinational corporations, even without government involvement. | For this law to be implemented, it requires long-term project management, funding continuity, and technical expertise, making it costly and more difficult for developing nations with less institutional capacity. The law also sidesteps causation between companies and climate change impacts which could be legally and publically contested. Lastly, while this method is culturally powerful, it may not address all economic losses like individual income loss, home destruction, or medical costs. | | |
| Cost-Recovery-Demands | The state would first estimate the total financial harm caused by climate change in the state over a 30-year period (1995–2024). This includes costs like:<br>Infrastructure damage from extreme weather (floods, storms, etc.).<br>Public health impacts (e.g., heat-related illnesses, respiratory diseases from poor air quality).<br>Agricultural losses (crop failures, soil degradation).<br>Ecosystem damage (biodiversity loss, forest decline).<br>Adaptation costs (e.g., upgrading stormwater systems, relocating roads).<br>Then,<br>The state will then determine how much of the blame each fossil fuel company bears by looking at their proportion of global greenhouse gas (GHG) emissions during that same 30-year window. | This approach hightlights causation-based accountability, linking liability to a company's share of historical emissions, offering more quantificable and evidence based justification for payment demands. The forumla used also uses a transparent emissions-to-cost ratio which makes quanitification easily digestable for policy makers and the general public broadly. | Even if a company contributed X% of emissions, proving that those emissions directly caused Y% of damages in the defendents territory scientifically and legally complex. Additionally, this method only focuses on economic losses and adaptation costs, which ignore fundemental elements of NELD like TEK loss, cultural erosion, and emotional damages. | | |
| Para-Metric Insurance Systems | Parametric insurance triggers payouts when predefined parameters (like wind speed or flood levels) are met, enabling fast, objective compensation scaled to the catastrophe's severity. | This type of index-based insurance can be used effectively after hazardous events occur but before multilateral humanitarian aid is implemented, suggesting a potential for more rapid financial disbursement compared to traditional aid channels. | For parametric schemes to work optimally, particularly when applied to slow onset events, "careful design" is necessary to prevent increasing dependence on external donor financing. This potential for dependency on donor assisstance may be harmful to the most vulnerable nation's, forcing them further away from self-sustaibility. Furthemore, Insurance mechanisms are also noted to be "not very affordable for those needing it most, that is, developing countries." | | |
| Environmental Impact Assessment | Happens before development starts, and evaluates how a project might affect the environment, economy, and society (often based on simple qualitative or semi-quantitative methods) | EIA is a predictive tool, intended to inform policymakers about the impacts of development ex ante (in advance). With this in mind, and given it 's already used by over 100 countries, it would be a valuable resource for quantifying non-economic losses related to climate change. Additionally, its origins in environmental legislation mean it has often been regarded as strongest on environmental effects, as well as on economic effects that are often easy to quantify, such as jobs created | While aiming for integration, EIA has often been regarded as weakest on social effects compared to environmental and economic effects, as it has almost exclusively been applied to geographically specific developments and projects (dams, roads, etc.). EIA's also focus less on prevention and more towards managing impacts, making them less desirable. | | |
| Environmental Risk Assessment: | Assessment of human and environmental effects of hazardous production processes and products as support to planning and permitting decisions (heavily quantitative, expert-driven model) | Unlike most other assessment frameworks, ERA places uncertainty center stage. It offers a "heavily quantitative, expert-driven model" for assessing non-economic losses, specifically focusing on the formal quantification of that uncertainty. This is a key differentiator from EIA, where uncertainty is pervasive but not formally quantified to the same degree. This method also draws specifically from technical and expert input to quantify risks arising from hazardous production processes. | While it can be integrated into broader risk management, ERA's "heavily quantitative, expert-driven model" might lead to a disconnect with social attitudes towards risks, which may be quite different from the technical valuation of those risks. Similarly to EIA's, the focus of ERA's is narrow, historically only being used for specifc hazards. | | |

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| Cost-Benefit Analysis | A decision-making tool that compares the total expected costs of a project or policy against its total expected benefits, both expressed in monetary terms. The goal is to determine whether the benefits outweigh the costs and by how much. | CBA provides a structured, systematic approach to the evaluation of both non-economic and economic effects. A key feature of CBA is that all costs and benefits must be monetized to be comparable, meaning that non-economic effects are assigned 'shadow prices' to render them comparable to economic impacts and costs. This facilitates economically efficient adaptation by allowing for full comparability of non-economic effects with economic effects and the costs of adaptation measures. Most importantly, CBA's are already widely used in most countries and international organization's to inform policy, plan, programme, and project choice. | Since market prices do not exist for non-economic effects, these effects must be assigned 'shadow prices' through non-market valuation techniques. These techniques are described as complicated and costly to apply, and sometimes. may be practically infeasible if no primary studies exist that can be credibly transferred. There are also concerns of the reliability and validity of the shadow prices created through non-market valution techniques. CBA's are also resource-intensive, raising the potenial for the disregard of non-monetized damages if physical harm is deemed more important. | | |
| Wealth/Capital Accounting | Seeks to understand how (typically) nations manage their asset bases, with a view to assessing whether they are developing sustainably (could also look at natural capital that would need to be assigned a monetary value) | Wealth/capital accounting broadens national accounting frameworks to include the value of non-economic assets, such as natural capital and social capital, offering a more comprehensive picture of a nation's total wealth. Additionally, wealth/capital accounting necessitates that non-economic effects be monetized, allowing for full commensurability with economic effects and the costs of adaptation measures. | Similarly to CBA's, the techniques required for non-market valuation are complicated and costly to apply, and it may be practically infeasible to infer shadow prices if no existing primary studies can be credibly transferred. Specifically for developing nations, while proponents align with the normative foundations of welfare economics, opponents, such as those emphasizing human rights, may find the approach disadvantageous due to its underlying principles. It is also noted that there is a high likelihood that non-monetized damages could still be ignored. | | |
| Vulnerability Assessments | Assessment of the vulnerability of societies, at multiple scales, to natural environmental pressures, alongside other stressors, often as an input to disaster risk reduction initiatives (both quantitative and qualitative, involves the measurement of exposure, sensitivity and adaptive capacity. | There is a wide range of measures and systems of measures proposed for assessing vulnerability, varying in their degree of quantification, complexity, focus (single or multiple hazards), spatial scale, and the prominence given to local people and knowledge. This includes global indices like the Disaster Risk Index (UNDP) and the WorldRiskIndex (UNU-EHS), catastrophe modelling, measures of sectoral vulnerability, and community-based disaster risk indices and self-assessment allowing for flexibility in application based on context and available resources. Additionally, vulnerability assessments offer well-established toolkits and a rich body of experience in accounting for non-economic factors in decision-making | Many non-economic losses related to human mobility, such as the loss of security, dignity, and agency due to displacement, are intangible, making their value hard to measure. Furthermore, measuring climate change-related displacement specifically suffers from a lack of standard concepts and methodologies, as well as barriers to data collection. With this in mind, full quantification is likely to be inaccurate, if not impossible. In many cases, it relies on expert input and summarizing diverse values into aggregate numbers, which can leave decision-makers feeling disconnected from the analytical process. | | |
| Benefit-Transfer Method | Using existing valuation estimates and applying them to new, similar contexts. | Benefit-Tranfer methods are very important in practice due to time and resources required to conduct original revealed and stated preference studies. Examples show their effectiveness in policymaking in developing and emerging countries, such as in India for industrial water pollution, Singapore for air pollution health costs, and South Africa for air quality decisions | Inaccuracy is a major concern, which increases significantly as the original study becomes more dissimilar to the 'site' where the estimates are being transferred. Additionally, the results may be biased hey often rely on the assumption that preferences in the new context are similar to those in the original study, especially when transferring estimates from developed to developing countries. | | |