



REVIEW ARTICLE

Section: *Literature, Linguistics & Criticism***Translating sustainability between development ambitions and ecological limits**Thallab Abdullah Alshakrah^{1*} & Aayesha Sagir Khan²¹Department of Educational Sciences, College of Education, Prince Sattam bin Abdulaziz University, Kingdom of Saudi Arabia²Faculty of Languages and Translation, King Khalid University, Kingdom of Saudi Arabia*Correspondence: t.alshakrah@psau.edu.sa**ABSTRACT**

Sustainable development depends on communication across languages, yet translation can conceal the conflicts that environmental policy must confront. Development promises circulate through institutional vocabularies that present economic expansion, social inclusion, and ecological conservation as mutually compatible. Their translation requires decisions about what sustainability means, whose knowledge counts, and which qualifications remain visible. This conceptual article examines those decisions through an interdisciplinary synthesis of translation studies, environmental communication, and research on the Sustainable Development Goals. It distinguishes interlingual translation from the broader conversion of knowledge into policy and develops an account of translation as a practice of public accountability. The discussion connects ecological approaches to translation with narrative framing, development studies, and environmental justice. Constructed English–Arabic examples demonstrate how changes in modality, agency, measurement, and temporal reference can alter environmental commitments without producing conspicuous grammatical errors. Particular attention is given to the distinction between sustained growth and ecological sustainability, the translation of conservation terminology, and the representation of community knowledge. The article also examines the environmental and labour implications of translation technologies. It proposes a framework for commissioning, translating, reviewing, and evaluating sustainability communication, with separate criteria for textual accuracy, participation, and ecological evidence. The central argument is that responsible translation should preserve contestable commitments and enable affected communities to question them. Translation cannot itself reconcile unlimited expansion with ecological limits, but it can make the assumptions and consequences of development choices available for multilingual scrutiny. The proposed framework generates research questions for future corpus, reception, and organisational studies.

KEYWORDS: translation studies, sustainable development, environmental conservation, eco-translation, environmental justice, English–Arabic translation

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Introduction

Translation shapes the terms on which sustainable development becomes intelligible across societies. A conservation programme, climate strategy, or development proposal reaches different publics through translated reports, interpreted meetings, educational materials, and digital interfaces. Each form of mediation influences what readers can identify as a promise, a requirement, an uncertainty, or a dispute. A text may remain fluent while changing the force of an environmental commitment. Conversely, a carefully qualified translation may make disagreement more visible and therefore appear less reassuring. These possibilities make translation relevant to the relationship between development ambitions and environmental conservation, particularly when institutions seek public confidence in projects whose benefits and costs are unevenly distributed.

The United Nations (2015) places economic, social, and environmental objectives within a common agenda. Its goals encompass employment and growth alongside responsible production, climate action, and the protection of aquatic and terrestrial ecosystems. This combination establishes a shared policy vocabulary, but it does not determine how competing priorities should be resolved in a particular place. A development project might improve access to services while increasing pressure on water or land. Conservation measures might protect habitats while restricting established livelihoods. Translation enters these situations whenever the descriptions, assessments, and decisions circulate between people who do not share a language or institutional register.

Hickel (2019) identifies a substantive tension between continued aggregate economic growth and environmental objectives concerning resource use and emissions. His analysis challenges the assumption that efficiency improvements can reconcile these commitments under the growth conditions he examines. The present article does not treat that argument as a settled verdict on every form of development. It takes the conflict as a reason to examine the language through which compatibility is asserted. Translators need to distinguish a political aspiration from a demonstrated outcome and a conditional projection from a guarantee. Those distinctions become especially consequential when a concise promotional text replaces a longer technical explanation.

Translation studies provides resources for analysing this problem without reducing it to terminological mistakes. Baker (2007) shows how translation participates in framing contested narratives, while Marais (2014) connects translation theory with development studies. Cronin (2017) brings ecological conditions into the understanding of translation itself. These approaches direct attention to institutions, material environments, and relations of power. Together, they support an inquiry into how sustainability travels through language and how the organisation of translation can reproduce the inequalities that sustainability programmes claim to address.

The article asks three connected questions. How can translation alter the relationship between development commitments and ecological constraints? What responsibilities follow when translation mediates between institutional expertise and community knowledge? How should translation practices be evaluated when accurate wording, equitable participation, and environmental performance require different forms of evidence? These questions concern both the translated text and the arrangements through which it is commissioned, revised, circulated, and challenged. They also require attention to non-translation, including decisions to leave supporting evidence or community responses available in only one language.

The contribution is a conceptual framework linking linguistic decisions to public accountability. Its claim is deliberately bounded. Better translation may improve the conditions for informed discussion, but a translation cannot establish whether a project conserves biodiversity, distributes benefits fairly, or reduces emissions. Those outcomes require appropriate empirical investigation. The argument developed here concerns the preservation of information and participation through which such claims can be assessed. English–Arabic examples illustrate the framework because they allow close attention to distinctions that matter in development communication; they do not represent a survey of Arabic environmental discourse or a judgement on official translations.

Research design and scope

This study uses a critical conceptual synthesis rather than an empirical assessment of a translation corpus. The source base combines scholarship on translation and ecology, translation and development, environmental

justice, sustainability policy, and language barriers in conservation science. Works were selected purposively for their relevance to the research questions and for bibliographic traceability through publisher records or institutional repositories. The selection is not presented as exhaustive, and no claim is made that it satisfies the procedures of a systematic review. The resulting argument depends on the explanatory relevance of the selected concepts, not on counts of publications or an inferred disciplinary consensus.

The synthesis proceeds by separating three analytical levels. The first concerns environmental propositions, including the activities, measurements, conditions, and time periods described in a source text. The second concerns mediation, encompassing translation choices, document selection, genre adaptation, and opportunities for explanation. The third concerns institutional consequences, such as whether readers can challenge a claim or submit information in their preferred language. These levels are related, but they cannot be treated as interchangeable. An omission in a translation is observable at the textual level; its effects on public understanding require reception evidence; its effects on environmental decisions require further investigation.

The English–Arabic passages introduced later are constructed analytical examples. Their English prompts and Arabic renderings were created to isolate particular translation decisions. They are not extracts from United Nations documents, corporate reports, government statements, or interviews. The examples demonstrate differences in propositional meaning that can be examined directly. They do not establish the prevalence of these differences in professional practice. This distinction prevents an illustrative rendering from being mistaken for evidence that a named institution, translator, or technology has misrepresented an environmental commitment. The review also distinguishes types of supporting material. Empirical studies are used within the settings and outcomes they report. Conceptual works supply interpretive resources rather than measured effects. Official policy documents establish the relevant goals and terminology without being treated as evidence that those goals have been achieved. Publication dates, titles, and DOI identifiers are provided in the references so that the scholarly sources can be traced. The United Nations agenda is identified by its official document symbol, enabling readers to distinguish this policy source from the scholarly interpretations developed here.

The analysis evaluates possible translations through a consistent set of questions. Does the rendering preserve the actor responsible for an action? Does it retain the distinction between obligation, intention, and possibility? Are environmental benefits attached to their original measurement boundaries? Can readers distinguish present performance from future ambition? Does the communication allow disagreement and correction? These questions supply an interpretive procedure that could subsequently be tested on authentic parallel texts. They also keep the article within translation studies: the object of inquiry is how linguistic mediation affects the accessibility and contestability of sustainability claims.

Sustainability as a problem for translation studies

Sustainability is difficult to translate because its apparent familiarity can obscure disagreement over its object. An organisation may refer to the sustainability of revenue, employment, resource extraction, public services, or ecosystems. These objects have different conditions of continuation. A practice that secures an institution financially may increase ecological pressure elsewhere. A translation that supplies a familiar equivalent for sustainability while leaving its object unspecified can preserve this ambiguity. The task therefore requires attention to the surrounding argument, especially the relationship between a claimed benefit and the resource conditions that make it possible.

The difference between sustained and sustainable is especially instructive. Sustained describes continuation over time; sustainable requires an account of the conditions under which continuation is acceptable or possible. Neither term automatically supplies an environmental standard. When a development text places the terms close together, a translator must decide whether the target language maintains their distinction. Replacing both with a single positive adjective can make continuity appear ecologically justified. This is an analytical possibility, not a claim that all languages lexicalise the distinction identically or that one translation equivalent is universally correct.

The relevant conflict also concerns scale. A factory might reduce water use per unit of output while expanding production enough to increase total withdrawals. A city might report lower operational emissions while relying on materials whose production creates emissions elsewhere. These hypothetical situations show why environmental propositions require a stated boundary. Relative improvements and absolute reductions

answer different questions. Translators should preserve this difference even when a target genre favours brevity. The ecological significance lies in what is measured; the translational significance lies in whether readers can recover that measurement from the target text.

The translation of sustainability therefore involves a recurring tension between accessible communication and adequate specification. A short public explanation cannot reproduce every methodological detail of a technical report. Yet brevity does not justify removing the conditions that determine whether a claim is true. A translator may need to propose a brief clarification, an attached glossary, or a link to the relevant evidence. Whether such additions are authorised depends on the commission and the document's function. The essential requirement is that editorial decisions remain identifiable rather than silently transforming the strength or scope of the source claim.

Breuer et al. (2019) examine the conversion of knowledge about SDG interdependencies into policy advice. Their use of translation concerns a relationship between research and decision making, illustrating the broader semantic reach of the term. Susam-Saraeva (2024) directly distinguishes knowledge dissemination, the movement from knowledge to action, and interlingual translation within climate crisis discourse. The distinction matters here because a programme can disseminate information successfully while excluding people linguistically. It can also translate a document accurately without creating the political conditions necessary for action. Success at one level cannot serve as evidence of success at another.

For translation studies, the practical object is the chain connecting documents, languages, participants, and decisions. A technical assessment may be summarised for a funding application, translated for a consultation, and shortened again for a public announcement. At each stage, the selection of content can affect the representation of environmental costs. Responsibility cannot automatically be assigned to the person who produces the final translation. Earlier editorial decisions may have removed information before that person receives the text. A defensible analysis must identify where a change occurred and which actor had the authority to accept or reject it.

Conservation vocabulary presents an additional problem because protection and use are not always opposites. Some policies combine conservation with regulated access, restoration, or community management. A translation should preserve the specific arrangement described rather than importing a general assumption that conservation means complete exclusion. Equally, references to sustainable use should not be expanded into permission for unrestricted exploitation. The environmental content must be established by the source's definitions and supporting provisions. A translator's preference for conservation, however reasonable as a personal position, cannot substitute for the distinctions needed to understand the document under translation.

Ecological approaches and translator responsibility

Cronin's (2017) ecological approach situates translation within relationships involving human societies, technologies, other species, and material environments. Its relevance extends beyond finding equivalents for environmental terminology. Translation takes place through infrastructures that consume resources and through institutions whose economic arrangements shape what becomes communicable. This perspective supports a broader question: whether the production and circulation of a translation are consistent with the environmental responsibilities expressed in its content. An institution can communicate sustainability while organising language work through practices that deserve separate ecological and social examination.

Hu's (2020) *Eco-Translatology* develops an ecological paradigm involving texts, translator communities, and translation environments, including adaptation and selection. Zhao and Geng (2024), by contrast, explicitly distinguish ecocritical translation studies concerned with human–nature relations from approaches that use ecology as a metaphor for translation systems. These positions should not be collapsed into a single method. Their juxtaposition clarifies the present article's scope. The analysis concerns environmental meaning and material consequences while recognising that translators operate within social and professional environments. Ecological vocabulary alone does not demonstrate a contribution to conservation.

Baker's (2007) account of framing offers a way to examine how a translation can reorganise the significance of a source narrative. Applied to sustainability communication, the relevant questions include who appears as an agent, which events form the explanatory sequence, and whose account is presented as credible. A project may be narrated through anticipated employment, through threatened habitat, or through competing

accounts of both. The present application is an extension of narrative analysis to environmental communication. It does not imply that Baker's original examples were studies of sustainability policy.

Marais (2014) establishes an explicit connection between translation theory and development studies. This connection discourages a narrow model in which development is fully designed elsewhere and translation merely delivers its instructions locally. In the framework proposed here, development communication also includes the mediation of local proposals, criticism, and evidence towards institutions with decision-making authority. Such mediation can affect how a problem is defined before a policy text exists. Translation thus belongs within the formation of development agendas as well as their later communication, although the strength of this influence must be studied in particular organisations.

Environmental justice provides another necessary distinction. Schlosberg (2004) connects concerns about distribution with recognition and participation. For translation, these dimensions generate different questions. Distribution concerns who receives language resources and who bears the cost of obtaining them. Recognition concerns whether a community's concepts and speakers are treated as legitimate sources of knowledge. Participation concerns whether people can contribute to deliberation and receive a meaningful response. Providing a translated leaflet addresses one part of this problem. It cannot, by itself, establish that speakers have influenced a decision or that their knowledge has been represented fairly.

These theoretical resources support an ethics of accountable mediation. A translator should make relevant meanings available without claiming authority to settle the underlying environmental dispute. This position permits professional judgement: unclear terminology can be queried, contradictory instructions can be identified, and unsupported equivalences can be challenged. It also limits unilateral intervention. Strengthening a conservation commitment because the translator believes the source is insufficiently ambitious changes the represented position. Such a change belongs in an authorised revision or explicit commentary, not in an unmarked translation presented as equivalent to the original.

Pym (2015) approaches translating through risk management. For the present argument, risk provides a reason to allocate attention according to the consequences of misunderstanding. An ambiguous slogan and an ambiguous instruction governing access to water warrant different kinds of review. This application does not require assigning numerical probabilities without evidence. It requires identifying which misunderstandings could materially change readers' choices and directing specialist review towards them. Environmental terminology, legal force, dates, units, and eligibility conditions may therefore require greater scrutiny than stylistic variation that leaves the proposition intact.

Translator responsibility is nevertheless constrained by working conditions. A practitioner cannot adequately investigate a technical ambiguity when the source evidence is unavailable, the deadline excludes consultation, or the commission forbids questions. Institutions consequently share responsibility for the quality of translated sustainability communication. They should provide access to subject specialists and allow the translator to document unresolved issues. This is a normative implication of the framework rather than a finding about the behaviour of all commissioning organisations. It locates professional judgement within the conditions that permit it to be exercised.

Constructed English and Arabic translation examples

The following examples isolate changes that are easy to overlook when a translation is assessed primarily for fluency. Each English sentence is a constructed prompt, and each Arabic rendering is supplied for comparison. The discussion evaluates the propositions expressed, without assuming how a particular audience would respond. It uses Arabic because differences in modality, continuity, and measurement can be demonstrated clearly in this language pair. Comparable questions could be investigated in other languages, but equivalent linguistic forms and reception effects should not be presumed.

Consider the prompt "The programme supports sustained economic growth." A possible Arabic rendering is "الاصواتم اي داصتقا اؤمن جم ان رب ال م عي", which presents the growth as continuing. Another is "م عي ام ادتسم اي داصتقا اؤمن جم ان رب ال", which uses the established adjective associated with sustainability. The second rendering may introduce a sustainability claim that the English sentence does not itself establish. The difference is not that the Arabic adjective has one fixed interpretation in every context. It is that the translator must inspect whether the surrounding source actually warrants moving from temporal continuity to a broader claim about

sustainability.

This distinction becomes more consequential in a longer argument. If the next sentence describes environmental safeguards, the translator should preserve the relationship between growth and those safeguards rather than allowing the adjective alone to imply compatibility. If the English deliberately distinguishes sustained growth from sustainable development, using the same Arabic term for both may obscure the distinction. A terminology record could explain the decision and identify contexts in which a different rendering is needed. Such documentation should remain responsive to usage; a glossary is a tool for reasoned consistency, not an instruction to disregard context.

The second prompt is “The project may reduce emissions if renewable electricity is available.” The rendering “قدّجتّم رداصم نم ءابرهكك ترفوت اذّا تاااعبناال عورشم لال لقي دق” retains both possibility and the condition. The alternative “قدّجتّم لاءابرهكك مادختساب تاااعبناال عورشم لال لقي س” presents a future reduction through renewable electricity. It no longer states that electricity availability is uncertain. Both sentences are grammatically coherent, but they make different commitments. A reader of the second receives less information about the contingency on which the expected environmental benefit depends.

The example identifies two separate review tasks. One concerns modality, represented here through the distinction between possibility and a future assertion. The other concerns the survival of a condition. Reviewing modal words alone would miss a condition removed elsewhere in the sentence. The same problem can arise during summary writing before translation begins. A translation assessment should therefore compare complete propositions and their surrounding context. It should also establish whether the translator received the complete source or a prior summary, since responsibility for an omitted condition may lie at an earlier stage.

The third prompt is “Water use per unit of output decreased.” A rendering that preserves the denominator is “جاتنّ دحول لكل هايمل كالهتسا ضفخنا”. A shortened version, “هايمل كالهتسا ضفخنا”, states that water use decreased without specifying the relation to output. The omission changes the scope of the claim. The first sentence can remain true even if total water use increases alongside production. The second supplies no comparable boundary and may be read as an absolute reduction. No numerical data are needed to identify this difference; numerical evidence would be required to determine what actually occurred at a particular facility. This example shows why environmental review should include units and denominators. Translators working from tables, captions, or presentation slides may encounter a denominator outside the sentence they are translating. When the target document separates those elements, information that was recoverable in the source can become difficult to find. The appropriate response may involve retaining the qualifier in the sentence or ensuring that the relevant caption remains adjacent. The governing principle is recoverability: readers should be able to identify what the comparison measures without inferring an environmental outcome that has not been reported.

The fourth prompt is “The company will restore the wetland by 2035.” The rendering “كورشل دي عتس” ضرال ليهأت داعي س” retains a named actor and a deadline. The alternative “الّبقّت سم عبطلرل” removes the named company and replaces the deadline with an indefinite future. The passive construction is grammatically acceptable, but its combination with the omitted date reduces the specificity of the commitment. A reviewer should examine whether responsibility and timing remain recoverable elsewhere in the document rather than treating every passive construction as inherently misleading.

Restoration also requires terminological care. Rehabilitation, restoration, and repair may overlap in ordinary communication but can carry distinct technical meanings. The Arabic term used above would need to be checked against the source’s definition of the intended ecological intervention. A fuller commission might require a specialist to decide whether restoration concerns hydrology, species composition, habitat function, or a more limited activity. The translation cannot settle that question through lexical confidence. Where the source itself is underspecified, the translator should preserve the uncertainty and request clarification rather than supply an invented technical standard.

The fifth prompt is “Residents raised concerns about access to grazing land.” The Arabic “ناكسل ايدبأ” ةيامحل عورشم ناكسل اضرع” preserves the reported concern. Rendering it as “ةيئيبال” instead represents residents as opposing an environmental protection project. The second sentence introduces a project description and a position that the prompt does not establish. It changes the narrative role of the residents from participants raising a specific issue to opponents of conservation. This difference

demonstrates how agency and framing can change through paraphrase even when neither version contains conspicuously emotive language.

Across the examples, the decisive unit of review is the accountable proposition. Reviewers need to identify what is asserted, who is responsible, and what conditions define the assertion. Fluency remains necessary, particularly where awkward language makes a qualification difficult to understand. It is insufficient as the sole criterion. The examples suggest a practical distinction between stylistic revision and substantive revision: a stylistic revision preserves the relevant proposition, while a substantive revision changes its actor, force, boundary, timing, or evidential status. Actual professional texts may contain several such changes at once, requiring analysis of the full document.

Language access and community environmental knowledge

Language access affects which environmental evidence enters public discussion. Amano et al. (2016) found that a substantial share of conservation-related scientific documents in their multilingual search was published in languages other than English. Their study also identified barriers to the use of scientific knowledge by local practitioners. Amano et al. (2021) subsequently showed that incorporating non-English studies can extend the geographical and taxonomic coverage of conservation evidence, while noting differences in study design. These findings support multilingual evidence gathering without implying that language alone determines the quality of research.

For translation studies, the consequence is that sustainability communication must be considered in more than one direction. Translating internationally circulated guidance into local languages can improve access, but translating locally produced knowledge into institutional languages can influence what guidance contains. An organisation that funds only the first direction treats communities primarily as recipients. A more participatory arrangement would also provide routes through which local observations, objections, and proposals become available to technical teams. The effectiveness of these routes depends on whether the receiving institution is required to consider and respond to the information.

Todorova (2022) examines translation practices in environmental civil society organisations in North Macedonia through interviews and organisational materials. Her study highlights the importance of inclusivity and marginalised voices in environmental communication. It supplies a situated example of why translation arrangements belong within the analysis of environmental action. Its findings should not be generalised automatically to other countries or organisations. They instead justify asking concrete questions about recruitment, language choice, and the consequences of leaving some communication untranslated in the setting under investigation.

Rudiak-Gould's (2012) study of climate change translation in the Marshall Islands demonstrates the importance of examining how scientific categories encounter local understandings. A term associated with climate can enter a broader account of environmental and social change. The relevant lesson is methodological: an apparently recognisable equivalent does not ensure identical conceptual boundaries. Researchers should investigate how speakers use the term and how the translation relates to existing explanations. The case does not authorise treating all Indigenous or local knowledge as uniform, nor does it establish that a single local interpretation represents every member of a community.

Community participation also raises questions of internal difference. A consultation conducted in the majority local language may still exclude some residents through literacy requirements, disability barriers, technical vocabulary, or the timing of meetings. Translation planning should therefore begin with a specific account of participants and communicative needs. It should not assume that an administrative category such as local community identifies one language or one interest. Different groups may disagree about conservation restrictions, employment, access to land, or acceptable environmental risk. Interpreting those differences faithfully is part of participation, even when disagreement complicates a project's public narrative.

Consent and ownership require equal attention. A community may agree to discuss environmental knowledge in a meeting without consenting to its publication in an international report or its reuse in a language technology dataset. Translating a contribution does not eliminate the conditions under which it was shared. A responsible procedure would explain the intended audiences, forms of attribution, and possibilities for later correction before dissemination. Where knowledge holders request limits, the institution should establish how

those limits will be maintained across translations and subsequent summaries. These are proposed procedural safeguards, not claims about the practices of a particular community.

Participation must finally be evaluated through the treatment of responses. Counting translated pages or interpreted meetings provides evidence of activity. It does not reveal whether a concern about water access reached the decision makers or whether a reply addressed it. A stronger evaluation would trace selected contributions from their original language through interpretation, written recording, institutional consideration, and response. This approach would allow researchers to identify where meaning was lost or where an accurately represented contribution was disregarded. The distinction is essential: exclusion can occur after translation succeeds, and its remedy may require institutional change rather than linguistic revision.

Technology labour and the material costs of translation

The sustainability of translation practices also concerns the technologies used to produce them. O'Brien (2012) conceptualises translation as human–computer interaction, directing attention to the relationship between practitioners and their working tools. This perspective is useful when translation quality depends on interfaces, translation memories, automated suggestions, and review arrangements. An environmental communication workflow should be assessed as an organised activity involving people and systems. Describing a document as machine translated or human translated reveals too little about the division of work, the available source evidence, and responsibility for the final text.

Strubell et al. (2019) examine energy and financial costs associated with training neural language models. Their analysis establishes that language technologies have material costs that warrant investigation. It does not provide a universal emissions value for translating a page, nor can its estimates be transferred unchanged to every current system. A comparison between translation methods would need clearly defined boundaries, including relevant computing activity and the wider workflow. Claims that automation is environmentally preferable because it is fast, or environmentally worse because it uses computation, require evidence beyond either description.

Efficiency can also alter demand. If an institution can produce multilingual material more cheaply, it may translate more documents, circulate more versions, or generate material that few people use. Whether the resulting expansion is justified depends partly on communicative value. Translating essential consultation materials into an underserved language may warrant additional resource use. Generating repeated promotional variants may have a different justification. The article proposes evaluating resource use against the function served, while avoiding the assumption that linguistic inclusion should be sacrificed whenever its costs become visible.

Automation creates a related problem of review. A grammatically polished output may leave the changes illustrated earlier difficult to notice, especially when reviewers are under time pressure. The appropriate evaluation should include conditions, numerical boundaries, attribution, and document context, alongside general linguistic quality. Where language support is limited, institutions should avoid representing an unchecked output as professionally verified. This principle concerns the evidential status of the product; it does not presume that every automated translation is inaccurate or that every human translation is reliable.

Labour sustainability requires attention to how the review burden is distributed. A commissioning organisation may expect translators to investigate technical content, correct automated output, and assume responsibility without providing additional time or access to specialists. The framework developed here treats those expectations as matters for explicit agreement. Reviewers should know the purpose of the text, the permitted interventions, and the process for unresolved questions. Working arrangements should allow uncertainty to be reported without turning every query into an apparent failure of individual competence.

The central technological question is therefore how an institution can demonstrate that its chosen workflow serves its stated purpose. Procurement should examine language coverage, accessibility, review capacity, and material costs using evidence appropriate to each criterion. A provider's general sustainability statement cannot substitute for a description of the actual service. Nor should a low cost per word establish value when target readers cannot understand or challenge the resulting message. Translation technology can support sustainability communication, but that contribution must be evaluated through the performance of the complete arrangement.

A framework for accountable sustainability translation

The proposed framework begins with the commission. Before translation, the institution should specify the document's purpose, intended readers, and relationship to a decision. A public consultation requires different opportunities for clarification from an archival report or a technical specification. The translator should receive the relevant source version, supporting terminology, and access to someone authorised to resolve substantive questions. Where the source makes environmental claims, the commission should identify which evidence can be consulted and which statements remain projections or aspirations. This preliminary work establishes the limits of the translator's authority and the information needed to exercise it responsibly.

The next task is to identify propositions whose alteration could change readers' understanding of an environmental commitment. These may include claims about resource use, conditions for expected benefits, obligations assigned to named actors, and deadlines for completion. Reviewers should record the relevant source passage and the reason it deserves particular attention. The record need not reproduce the entire document. Its purpose is to make review priorities explicit, especially where a short text draws on a larger technical source. It also provides a basis for explaining why a seemingly small omitted phrase requires correction.

Translation should then proceed with a documented route for queries. A linguistic uncertainty can often be resolved by the translator through contextual research. A dispute about whether a claim is technically supported should be referred to an appropriate specialist. An instruction to strengthen or weaken the source position should be treated as an editorial decision requiring authorisation. Separating these questions helps prevent technical uncertainty from being concealed by a confident equivalent. It also prevents a translator from being made solely responsible for the credibility of evidence supplied by the commissioning organisation.

Revision requires more than a general judgement that the target text reads well. A second reader should compare the relevant propositions, including negative statements, conditions, units, dates, and named responsibilities. Where a document has been condensed or adapted, the review should establish which material was intentionally omitted and whether the omission changes the represented claim. A subject specialist can assess technical terminology, while a language professional assesses the relation between source and target. Their responsibilities overlap, but neither role should be presumed to supply the other's expertise automatically. Public accessibility requires a further stage. Representative readers can be asked to explain what a passage commits the institution to do, what remains uncertain, and where further evidence is available. These questions assess understanding more directly than asking whether the translation sounds natural. Reader testing should be designed around the actual audience, including the relevant varieties of language and levels of technical familiarity. When participants identify a misunderstanding, revision should determine whether its source is linguistic wording, document structure, missing background information, or an ambiguity already present in the original.

For participatory documents, the framework adds a route for response. Readers should be able to submit questions in the languages supported by the consultation, understand how contributions will be recorded, and receive an accessible reply. The institution should retain a traceable connection between the original contribution and its translated representation. This does not require making personal information public. It requires sufficient internal documentation to investigate a disputed rendering and to distinguish a translation problem from a decision to reject the substance of a contribution.

Evaluation should maintain separate records for linguistic quality, participation, and environmental outcomes. Linguistic quality concerns the accuracy and usability of the translation. Participation concerns who could contribute and how contributions were addressed. Environmental outcomes concern the performance of the policy or project. Combining these dimensions into a single score could conceal failure in one area behind strength in another. A document may be accurately translated while describing ineffective conservation measures. A beneficial conservation outcome may occur through a process that excluded affected speakers. Both situations require a more precise account than a general claim of sustainability.

The framework connects most directly with environmental goals concerning responsible production, climate, water, and biodiversity. Its attention to accessible learning and participation also relates to education, reduced inequality, and accountable institutions within the United Nations (2015) agenda. These connections are analytical alignments rather than official SDG indicators or evidence of target achievement. Institutions adopting the framework should state which communicative problem they intend to address and collect evidence

accordingly. The framework's value would be demonstrated by better preserved commitments and more effective opportunities for scrutiny, not by the number of sustainability labels attached to translation activities.

Translating conflicts and future commitments

A demanding application arises when an institution must communicate a choice between desirable goals. Consider a hypothetical conservation proposal that restricts grazing in a damaged habitat while offering alternative employment. The proposal combines an ecological objective with a development promise, but the relationship between them depends on details. Readers need to know which access restrictions begin immediately, when employment becomes available, and what happens if the promised work does not materialise. Translating the proposal as a general commitment to sustainable livelihoods would erase the sequence on which its fairness depends.

The translator should preserve the separation between these commitments. Restrictions, benefits, and contingencies may belong to different clauses and involve different responsible actors. Combining them into a smooth statement of mutual benefit can make their fulfilment appear simultaneous or guaranteed. Conversely, an adversarial paraphrase could suppress the proposed benefits and present the document solely as dispossession. Both transformations would prevent readers from assessing the actual arrangement. A responsible translation keeps the available alternatives and their conditions sufficiently distinct for affected people to question them. Such scrutiny includes the translation of disagreement. If residents request compensation, that request should not automatically become evidence that they accept the restriction. If they ask for more information, the request should not be recorded as approval subject only to clarification. Consultation records therefore need to preserve the status of a contribution as a question, objection, proposal, or expression of consent. These categories can be difficult to determine in interaction, particularly where indirectness serves a social purpose. Interpreters should have opportunities to seek clarification rather than being required to infer consent from conversational politeness.

Future commitments introduce a related temporal problem. A long-term objective can be translated accurately while becoming misleading through its placement beside evidence of current performance. A report might discuss a planned conservation programme next to photographs of an existing landscape, inviting readers to associate present conditions with future interventions. The translation commission should therefore include relevant captions and surrounding material. Analysing only the sentence would overlook how the document connects intention with apparent achievement. This is a reason to treat layout and genre as parts of meaning, even in a study centred on verbal translation.

The coming period also requires procedures for maintaining translations when commitments change. A corrected source report should trigger an assessment of the language versions that depend on it. Otherwise, readers may encounter different deadlines or eligibility conditions according to which translation they access. Institutions should retain version dates and identify substantive corrections in accessible language. Archiving an earlier version may be necessary for accountability, but it should not leave readers uncertain about which version governs the current discussion. Multilingual maintenance belongs in the original budget because translation quality can deteriorate through neglect after accurate initial publication.

Future-oriented communication must also explain uncertainty without making responsibility disappear. A conservation outcome may depend on rainfall, ecological response, or the actions of several organisations. The existence of those uncertainties does not necessarily remove responsibility for monitoring, reporting, or adjusting an intervention. A translator should preserve the difference between an uncertain outcome and a definite procedural commitment. This distinction allows an institution to communicate limits honestly while remaining accountable for actions within its control. It also avoids the temptation to resolve difficult uncertainty by either promising success or implying that no meaningful commitment is possible.

One further implication concerns the status of failure. A translated progress report should distinguish a missed target from a revised measurement method, an incomplete observation period, or a cancelled intervention. Each situation carries different implications for public judgement. Replacing them with a general statement about continuing progress can prevent readers from identifying what requires explanation. A careful translation preserves the relevant category and its evidence, including an explicit statement that an outcome remains unknown where that is the source position. Acknowledging an unsuccessful intervention can support

subsequent learning when the account remains accessible across the languages of those affected.

These applications show why conservation and development goals should remain open to negotiation in translated communication. The proposed framework does not predetermine the acceptable balance between habitat protection and livelihood. It specifies the communicative conditions under which that balance can be examined: identifiable commitments, preserved disagreement, accessible evidence, and opportunities for revision. Those conditions remain relevant as environmental priorities change because they concern how institutions explain and justify choices to multilingual publics.

Research implications and limitations

The framework produces a research agenda that can be investigated without presuming its effectiveness. Corpus studies could compare authentic source and target documents across defined genres, institutions, and language pairs. The unit of analysis should include complete claims and their relevant context. Researchers could examine whether modality, attribution, and measurement boundaries are preserved, while documenting authorised adaptation and source revisions. A clear sampling rationale would be necessary because promotional brochures, consultation documents, and technical reports serve different purposes. Combining them without genre controls could produce misleading conclusions about translation practice. Future studies should publish their coding definitions and anonymised examples so that other researchers can examine disputed interpretations and decisions.

Reception studies could examine whether readers distinguish absolute reductions from improvements relative to output, or recognise the conditions attached to environmental projections. Experimental designs would need to separate linguistic comprehension from prior attitudes towards the institution or project. Participants might understand a claim accurately and still reject its credibility. Conversely, they might express trust while misunderstanding the commitment. Measuring these responses separately would help avoid treating persuasion as evidence of successful translation. Any claim that a particular rendering changes environmental behaviour would require a design capable of supporting that inference.

Organisational studies could follow documents through commissioning, translation, revision, and public circulation. Interviews and document histories could reveal who selects material, who resolves technical queries, and how deadlines affect review. Such research would be especially useful for identifying omissions introduced before translation or after translators submit their work. It could also examine whether language budgets support community responses as well as institutional messages. The central question would be how authority and resources are distributed across the workflow, rather than whether individual translators express favourable attitudes towards sustainability.

Material assessments of translation technology would require an explicit functional unit and consistent comparison boundaries. A study might compare workflows that deliver the same usable document to the same audience, including equivalent review requirements. It should explain how computing activity and other relevant costs are measured, and report uncertainty. Comparisons based solely on the number of generated words risk rewarding unnecessary production. They also overlook whether a translation fulfils the communicative purpose for which the resources were used.

The present article has corresponding limitations. Its source selection is purposive, its examples are constructed, and its framework has not been validated through fieldwork. English–Arabic illustrations cannot establish patterns across Arabic-speaking societies, other language pairs, or the professional sector as a whole. The conceptual synthesis also brings together traditions with different objects and assumptions. Their combination is offered as an analytical proposal that requires further testing. These limits do not prevent close examination of the examples' meanings, but they restrict claims about frequency, reception, organisational feasibility, and ecological effects.

Conclusion

The relationship between sustainable development and environmental conservation becomes a translation problem whenever competing commitments must remain intelligible across languages. Translation can preserve the distinctions needed to assess those commitments, including responsibility, modality, measurement, and time. It can also obscure them through fluent but consequential changes. Ecological approaches, narrative analysis,

and environmental justice together show why the relevant object extends beyond isolated terminology to the institutions and material arrangements through which communication occurs.

The framework proposed here locates responsibility across commissioning, translation, specialist review, public access, and response. It treats translators as professionals whose judgement requires appropriate information and working conditions. It also treats communities as possible producers of environmental knowledge and criticism. These commitments offer a translation studies response to sustainability goals without assuming that the production of multilingual documents demonstrates environmental progress.

The most defensible contribution of translation is to sustain the possibility of informed scrutiny. Development claims should remain open to questions about their evidence, beneficiaries, ecological costs, and conditions of fulfilment. Conservation arguments should remain open to questions about livelihood, access, and participation. Translation cannot resolve those conflicts by choosing reassuring language. It can help ensure that the people affected are able to understand the alternatives, communicate their own knowledge, and hold the relevant institutions accountable for the commitments they make.

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Declarations

Data availability: The article analyses public institutional webpages. The source register and representative Romanized excerpts are included. A reusable corpus should be archived only after checking institutional copyright, webpage changes, and journal data-sharing requirements.

Ethics: The corpus contains no private or personal data. Institutional texts are quoted briefly for scholarly analysis.

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