elpublishing

Language Documentation and Description

ISSN 1740-6234

This article appears in: *Language Documentation and Description, vol 3*. Editor: Peter K. Austin

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Cite this article: Gail Coelho (2005). Language documentation and ecology: areas of interaction. In Peter K. Austin (ed.) *Language Documentation and Description, vol 3*. London: SOAS. pp. 63-74

Link to this article: http://www.elpublishing.org/PID/036

This electronic version first published: July 2014

Language documentation and ecology: areas of interaction

Gail Coelho

1. Introduction

Language documenters and ecologists need to recognise that there is one issue that is of mutual concern to both, namely the relationship between ethnic groups and the natural environment in which these groups live. Linguists are well aware that the preservation of an endangered language depends on the preservation of the community that speaks the language. A community's culture develops in relation to its biological environment. Language and culture are closely linked in that language encodes and expresses culture, while culture provides the social context in which language is used. Therefore, when a minority community's cultural traditions are endangered by disruption of their relations with their traditional environment, these threats to their culture can be expected to affect their use of language.[1] Linguists, therefore, have reason to take an interest in the relationship between ethnic groups and their biological environment, and to work with ecologists in designing environment conservation programmes that respect and address the needs of indigenous groups whose livelihood depends upon the areas that these programmes seek to conserve.

Although environment conservationists are not always sensitive to the needs of indigenous groups who live in threatened ecological habitats, there is a growing body of ecologists who recognise the important role that indigenous communities play in conserving their environment. Much has been written on the value of traditional ecological knowledge (TEK) and some recent conservation programmes (one of which is described below) have drawn upon traditional practices of indigenous communities to enhance the success of these programmes. Thus, ecologists have reason to take an interest in the preservation of the cultural practices of indigenous communities and their ties to the region in which they live. These mutual interests provide a basis for collaboration between linguists and ecologists in saving the languages and cultures as well as the natural environments of indigenous groups living in ecologically threatened areas.

[1] Some scholars (e.g. Harmon 2001, Maffi 2001, Mühlhäusler 2001) go so far as to argue that linguistic diversity is closely linked to biodiversity and that both develop as a result of similar environmental factors. While I am sceptical of much of their argumentation, I do see an indirect connection between language preservation and environmental preservation, with the nexus being the community and its cultural traditions.

Gail Coelho (2005) Language documentation and ecology: areas of interaction In Peter K. Austin (ed.) *Language Documentation and Description Vol 3*. 63-74 London: SOAS

1.2 Why the culture-environment connection matters for language preservation

There are several ways in which minority ethnic groups have historically been disconnected or delinked from their natural environment. These range from the extreme measure of forcible removal from the group's traditional home territory to the more subtle form of gradual loss of cultural practices that involve utilisation of natural resources in their home environment. Forcible removal from the traditional homeland occurred primarily as a result of conquest in the past, but it currently takes place in rapidly industrialising regions, where small groups are shifted out of their lands to make way for large-scale plantations or development projects such as dams. In addition, indigenous groups have been evicted from forest land so as to keep forests free of "human interference". Less drastic ways by which ethnic groups become culturally disconnected from their traditional environment are: (a) imposition of external control over the traditional home-range of an ethnic group and over its traditional customs and lifestyle, such as bans on hunting and fishing, grazing domesticated animals, or gathering forest materials for household use; (b) the ethnic group's own susceptibility to the temptations of industrial society, such that they substitute goods bought from more industrialised societies for items that were traditionally made within the community using locally available resources; and (c) degradation of the environment leading to decreasing availability of traditional sources of food and other materials, which forces ethnic groups to change to non-traditional ways of attaining these materials. Such disconnection results from and leads to the gradual absorption of smaller indigenous communities into larger industrial societies or cash-based economies, with consequent loss of community identity, community cohesion, traditions, knowledge, and language.

One important way in which the disruption of cultural practices caused by disconnection from the environment can be expected to have a detrimental effect on language use is in the reduction of group activities that traditionally drew the ethnic group together as a community. Community solidarity is stronger in cases where members of an ethnic group stay together in a unified geographical area, and maintain activities that draw members into social communion with each other, such as work that requires the coordinated efforts of a group, religious ceremonies, festivals, etc. These group activities are generally intimately related to the natural environment in which an ethnic group lives, for they often serve the purpose of bringing the community together to carry out the work of procuring food and shelter necessary for survival in its natural environment. Thus, community festivals invariably coincide with events that require group work. Harvesting time, for example, is usually the occasion for a harvest festival. When an ethnic group is disconnected from its traditional environment, it no longer has use for the traditional group activities necessary for its survival. Therefore, there is greater likelihood that community ties within the group will loosen, that its members will gradually get absorbed into more dominant communities, and that there will be fewer occasions that draw the group together into contexts that facilitate the use of the ethnic language.

The loss of environment-related cultural practices can lead, also, to the loss of those parts of language that are used to categorise and talk about the environment. Specialised vocabulary and grammatical items, such as classifiers, encode traditional ecological knowledge. They can get lost when an ethnic group is disconnected from its environment and no longer needs to transmit, record, or use this knowledge.

Language is also used in aesthetic ways to aid in the work of survival within a biological environment. Communities around the world have developed repertoires of work songs, whose purpose is to bring pleasure into arduous tasks and facilitate coordination in group work through the use of rhythm. For example, sea shanties are a genre of songs sung by sailors in Europe and America with different rhythms to match different sea chores; Vachipattu is a genre of songs sung by boatsmen in Kerala to set a rhythm for coordinated strokes of the oar, and Ho is a genre of work songs sung by manual workers in Vietnam. Work songs are also sung to bolster the spirits of those carrying out dangerous tasks. For example, the Kāttunayaka community, in the Nilgiri Mountains of southern India, have a repertoire of honey-collecting songs which they sing when raiding the hives of wild bees in the forests at night.[2] Gathering honey in these forests is dangerous not only because a local variety of giant wild bees have been known to kill when disturbed from their hives, but also because other wild animals, such as bears, who compete for the same food source, are likely to attack them. Kāttunayaka honey-collecting songs therefore help alleviate the discomfort of a dangerous task carried out deep in the forest at night. When ethnic groups no longer interact with their environment in the traditional way, they can lose the repertoire of verbal genres developed over time to aid in the work of survival in the traditional environment.

Apart from concerns about language use, a good reason for language documenters to care about the relationship of community to environment is simply that this is an issue that concerns the well-being of the communities whose languages they study and, where relevant, seek to preserve. A good example of the importance that ethnic groups place on interaction with their traditional environment comes from the Cree bush school initiative in Canada, described in an online report on the project (available under the LINKS project link on the UNESCO website http://portal.unesco.org).[3] The project involves a section of the Eeyou or Cree community who live in the James Bay region of Quebec, Canada. According to the report, the Cree in this area were traditionally nomadic but now live in nine permanent villages on and near the sea coast, where the older ones continue to hunt, fish, and trap. Their lives have been changed over the years because of settlement into permanent villages, conversion to Christianity, and the establishment of schools in which speaking

[2] Further information about the Kāttunayakas, also known as Jenu Kurumbas, can be obtained from publications by the anthropologist Ulrich Demmer (see e.g. Demmer 2001a, b, 2002). The Kāttunayakas are one of roughly 16 indigenous groups who were the sole inhabitants of the Nilgiris (a mountain range in the state of Tamil Nadu, southern India) until the 19th century, when the development of tea and coffee plantations in the region attracted large numbers of immigrants from the surrounding lowlands.

[3] The website address for this article is:
http://portal.unesco.org/sc_nat/ev.php?URL_ID=4590&URL_DO=DO_TOPIC&URL_SEC...

Cree was forbidden. Industrialisation has also had a considerable effect on their lifestyles, and they have lost much of their land to dams. Family violence, juvenile deliquency, alcoholism and drug addiction, depression and suicide were on the rise among the younger population. As stated in the report:

> "To break the cycle of violence and self-destruction, older hunters and their wives began taking troubled youth out onto the land as a place of healing. By untangling young lives from their problematic village existence and initiating them to a hunting life, the men and women hoped to re-establish a connection to Cree tradition, to the people and the land, and instil a sense of identity and self-worth." (p.2)

Importantly, the Cree do not reject formal education in schools or those aspects of industrialisation that offer advantages, but they believe that traditional knowledge must also be maintained: "Formal knowledge can happen in the classroom, but traditional knowledge must be passed on to our youth out on the land where our people have always hunted, fished and trapped" (Cree speaker quoted on p.3 of the report).

1.3 Why cultural traditions matter for environmental preservation

One has only to go to UNESCO's website for the LINKS (Local and Indigenous Knowledge Systems) project mentioned above to uncover a great deal of information testifying to the valuable ecological knowledge that indigenous communities possess about the environment in which they have long lived. As one webpage within this website states:

> "In all regions of the world are found local communities who have long histories of interaction with the natural environment. Associated with many of these communities is a cumulative body of knowledge, know-how, practices and representations. These sophisticated sets of understandings, interpretations and meanings are part and parcel of a cultural complex that encompasses language, naming and classification systems, resource use practices, ritual, spirituality and worldview. This local and indigenous knowledge is a key resource for empowering communities to combat marginalisation, poverty and impoverishment."[4]

Several conservation programmes described on this website have begun involving indigenous communities, with their traditions, in conservation or resource-management programmes. It is worthwhile to examine one such resource-management programme in some detail, so as to illustrate the success that may be achieved by involving indigenous

[4] This quote is taken from text previously displayed on the LINKS homepage in January 2005 [http://portal.unesco.org/en/ev.php@URL_ID=5065&URL_DO=DO...]. The article has since been removed from the website to make way for new information.

communities in such endeavours. Given below is a brief summary of a fisheries-management programme in Vanuatu, described in Johannes and Hickey 2004.

Johannes and Hickey's (2004) report on this programme begins with an obituary by Hickey to Johannes, who had died before publication of the report. This obituary is especially interesting for its advocacy of what the authors call the "human component" in conservation. Hickey points out that Johannes,

> "realised that the conventional scientific approach to tropical fisheries management was seriously flawed in that it lacked a consideration of perhaps the most important component of managing fisheries, the human component ... [he] had the insight and pragmatic sense to break from established scientific conventions to seriously consider the existing customs, social and economic needs of local communities and to advocate for culturally sensitive management plans that considered and addressed all of these needs" (p.5).

Hickey adds: "Who could possibly be better placed and motivated to manage one's own resources than those living with and dependent upon them and those who had inherited so much management-relevant traditional knowledge?" (p.6).

Vanuatu is a Pacific Island nation, comprising a tropical archipelago situated about 2,000 km east of northern Australia. Its inhabitants live by utilising marine resources such as trochus, finfish, lobsters, clams, sea cucumbers, crabs, etc, which live in the islands' coral reefs, mangroves, and other shallow nearshore habitats. As stated in Johannes and Hickey's report, most ni-Vanuatu households practice only subsistence harvesting, while approximately a quarter of them sell some of their catch. The most important commercial marine product in these coastal villages is trochus, "a large marine snail whose shell is sold for making buttons, inlay in fine wood carvings and as an ingredient in certain paints" (p.9). During the 1980s, trochus yields had become very low because of overharvesting. Therefore, in 1990, the Vanuatu government began promoting a village-based conservation programme aimed at increasing stocks of this reef animal. The programme was a voluntary one, and was introduced initially in five villages that responded positively to radio announcements about the availability of guidance for the programme. Villages were advised to close off fisheries for several years, followed by brief opening for harvests, with size limits on them. Villages that did so often reported improved subsequent harvests; as a result, other villages started voluntarily implementing the programme. Villages also voluntarily extended the programme to include other marine animals and to ban or restrict certain harmful fishing practices. A survey carried out in 1993 by the authors of the report found that "25 of the 26 villages surveyed had, since 1990, implemented marine resource management measures based on the success of the five original trochus management trials" (p.19). The number of measures implemented in each village had increased further by the time the villages were resurveyed in 2001. The authors add that this programme, which cost only a few thousand dollars in the initial years "had a more positive impact on marine resource use than a multi-donor, aid-funded Vanuatu fisheries development project that had cost tens of millions of dollars" (p.19).

A crucial factor in the success of the programme was its sensitivity to traditional community structure and practices. The use of marine resources in Vanuatu is built around a traditional system of tenure. Clans, chiefs, or villages have rights to coastal waters contiguous to traditional land holdings. Clan chiefs control the use of resources in these waters, and have the right to exclude outsiders. Their traditional authority was drawn upon to initiate and enforce conservation measures within the programme. Customary practices were drawn upon to initiate tabus on harvesting – pig killing, kava drinking, communal feasts, etc. The punishment for breaking tabus was administered locally and involved traditional fines. The measures were most effective in cases where traditional authority of village chiefs was respected. In some areas, chiefs felt the need for police support in enforcing rulings because the "intrusion of western lifestyles and individualism [had resulted] in the gradual erosion of respect for traditional institutions" (p.33). The programme was less successful in villages with disputes over tenure.

The second key factor in the success of the programme was the fact that the implementation of the programme was voluntary. Villages recognised that it was in their own best interests to protect their sources of survival. They understood the underlying rationale of the conservation effort and, therefore, measures were put into place voluntarily despite the sacrifices entailed in refraining from harvesting during periods of fishery closure. Interestingly, the three villages that had initiated the most measures were ones with growing populations and relatively heavy dependence on marine resources – these villages could readily recognise the ill-effects of over-harvesting and so had the most incentive to try measures aimed at increasing the population of marine animals. A third factor responsible for its success was support from the government – the fisheries department initiated steps to provide alternative sources of income (involving marine resources) in periods of closure. A fourth factor was the use of a combination of traditional methods and education in new ones – although traditional knowledge is important, certain innovations are necessary because traditional knowledge may not be sufficient to meet modern threats to survival.

The example of the Vanuatu fisheries programme described above demonstrates the success that can be achieved by the implementation of community-based conservation efforts that are sensitive to traditional community structure and traditional knowledge. Ecologists, in consequence, have as much reason as linguists have to support the maintenance of the cultural traditions of indigenous communities. Linguists in their turn can contribute to environmental preservation as well as maintenance of cultural traditions by using their skills to gather information about the group's traditional knowledge of their environment and documenting the various ways in which the group interacts with its environment. As discussed in the next section, such information can be gathered in the course of work that language documenters are already engaged in, without requiring much change or addition to current data collection methods.

2. Collaborative work between linguists and ecologists

Studies of traditional knowledge of the environment are generally part of the field of ethnobiology, which "encompasses all studies which concern the mutual relationships between plants [and animals] and traditional peoples" (Cotton 1996). Given the interdisciplinary nature of this field, the best ethnobiological studies are done by a team of researchers drawn from several different fields, including linguistics. While language documenters do not always have the luxury of taking a team of researchers to their field site, they can nevertheless contribute to ethnobiological research by using linguistic skills and knowledge of the language to gather information about the group's traditional ecological knowledge and documenting the various ways in which the group interacts with its environment. Much of this information can be gathered in the course of the usual work of documenting a language – building up vocabulary lists and collecting texts in different genres – with only some modification to allow for more attention to linguistic items and cultural practices related to ecological knowledge. The work that linguists do to promote literacy and native language education can also be used to aid in conservation education programmes, and to enable native speakers to compile their own records of knowledge within their community.

2.1 Contributions that language documenters can make to ecological studies

Martin (2004) in his field manual of ethnobotany lists a number of ways in which linguists can assist in ethnobiological studies. Given below is a discussion of some of the contributions he lists, supplemented with examples drawn from Betta Kurumba, a Dravidian language (one of the 16 languages indigenous to the Nilgiri Mountains, mentioned above) which I have been documenting.

2.1.1 Collection of plant and animal names

Martin points out that since linguists are engaged in studying the language in itself, they are better equipped than the average biologist to provide accurate transcriptions of names in a suitable orthography, and to avoid obvious errors made by ethnobiologists who attempt to gather names in languages with which they have no previous familiarity. According to Martin, there are stories of researchers who wrote what they thought was the name, only to have other ethnobiologists discover later that the consultant was just saying "I don't know" or "That's a rock".

He also suggests that linguists' knowledge of the language's grammatical system puts them in a better position to distinguish between true names versus descriptive phrases that a consultant may use when pointing to a plant or animal (e.g. the name, *blackbird,* as opposed to the descriptive phrase *black bird*). In addition, their knowledge of the language makes it relatively easier for them to recognise translations of names, where relevant. Such translations often contain clues to plant characteristics that may be of interest to a biologist or ecologist. For example, my database of plant

names in Betta Kurumba includes the name *paga:pətəvulə,* literally translated as 'leaf that gets angry' for a plant, commonly found in India, which bears the botanical name *Mimosa pudica.* The Indian English name for the same plant is *Touch-me-not.* Both names refer to a salient characteristic of this plant, which is sensitivity to contact with foreign bodies – when touched, it responds by folding up its leaves as if to avoid further contact.

Martin further points out that the language documenter's knowledge of the relevant language can be useful also in recognising whether the name is native or possibly borrowed. This distinction is useful to ecologists because a borrowed name could indicate that the plant is an introduced, rather than native, species.

2.1.2 Understanding of indigenous classification systems

Plant names generally fit into a structured classification system, which consists of primary names, such as *eagle*, and secondary names, such as *bald eagle,* or *golden eagle*. A language's classification system provides insights into the way in which the ethnic group conceives of its environment because it encodes categorisations of items in this environment. It also provides insights into which items in their environment are culturally significant for the group. For example, the Betta Kurumbas have five names for what they see as five different kinds of bamboo, plus names for each part of the bamboo.[5] The many names for bamboo and its parts reflects the fact that bamboo has many uses for the community and is, therefore, very significant culturally. On the other hand, there are several species of plants (with leaves that resemble wild turmeric and wild ginger) that are all labelled with a single name *kissi;* these plants are of virtually no use for the Betta Kurumbas and are, therefore, not distinguished by the use of specific names for each plant. To take another example from Betta Kurumba, there are two categories of raptors, or birds of prey, in this language – *binji* is the term used for those that prey on smaller birds, and *paddə* is the term used for those that prey on other animals. The functional basis for distinguishing these two categories of raptors may be traced to the fact that Betta Kurumbas rear chickens. They must, therefore, remain especially watchful of birds of the *binji* category when they hover over their village, but can be less wary of birds of the *paddə* category. A detailed understanding of the cultural basis of plant/animal taxonomies and the world view that they encode requires training in anthropology; however, even language documenters without sufficient anthropological background can make a contribution in this area by eliciting as much

[5] Among the names for *ka:yli* 'bamboo', *si:mi ka:yli* refers to a cultivated variety of bamboo; *kərga:yli* refers to a wild bamboo species with botanical name *Dendrocalamu strictus;* two names, *perka:yli* and *temka:yli,* refer to a wild bamboo species with botanical name *Bambusa arundinacea;* and *o:Dka:yli* refers to a species *Bothriochloa concanensis* that is not really considered bamboo by botanists (the symbol D in *o:Dka:yli* indicates a voiced retroflex stop). The names clearly do not show a one-to-one correspondence with species recognised by mainstream science. Further research is necessary to uncover the basis of this classification of "bamboo" in Betta Kurumba.

information as they can about locally perceived plant and animal categories, the vocabulary used in indigenous classification systems, and information about the plants or animals that local names may encode.

2.1.3 Historical reconstructions

Reconstructed vocabulary containing plant and animal names or related information can provide clues about which plants and animals were important in a region thousands of years ago. Such reconstructions can also help in establishing historical connections between the ethnic group and its territory, which are in turn useful for land claim issues affecting minority communities.

2.1.4 Preparation of educational material for conservation.

Linguists, with their knowledge of the indigenous community's language, are able to assist in the preparation of linguistically reliable native language educational materials for conservation. Martin points out that sometimes linguistically-related communities in an area differ in the names they use for a plant. By gathering information about dialectal differences in plant or animal names, linguists can assist conservationists in including names appropriate to all relevant communities in textbooks. Further, the work linguists do in promoting literacy among previously nonliterate communities, enables communities to use their own voice in writing down their traditional knowledge themselves and in imparting this knowledge through educational material of their own design.

One more contribution can be added to the ones given above from Martin's list: the collection of native language narratives in various genres with information relating to the environment. Linguists can gather a great deal of information about an ethnic group's ecological knowledge by eliciting descriptive narratives or recording spontaneously-occurring conversations in the native language about traditional activities. Additional information about ecological knowledge can be gained from stories, songs, rituals, etc. which frequently centre around plants, animals, or elements in the natural world.

In gathering ethnobiological information, the linguist should keep in mind its usefulness to a multidisciplinary audience and the fact that this information is a valuable part of the cultural heritage of a people, which must be recorded for posterity. With this purpose in mind, it is important that names of plant or animals be glossed with accurate botanical or zoological names, so as to clearly indicate the exact referent that the name refers to. Linguists need to collaborate with biologists for this work because an untrained person can be easily misled when attempting to recognise the exact biological variety that the consultant is pointing to. This is especially so in areas rich in biodiversity, where there may be hundreds of plant and animal varieties which appear so similar to the untrained eye that their different biological names can be identified only by a person skilled in plant and animal taxonomy. Indigenous

communities can have individual names for a very large proportion of these varieties, but to complicate matters, sometimes a single plant name in an indigenous language can refer to a range of species. Expert biological knowledge is necessary to detect whether the consultant consistently uses the same name for the same species or uses it to label more than one species that bear a close resemblance to each other.

In some cases, botanical and zoological names can be obtained by using books with pictures about the flora and fauna of a region. When the consultant points to a picture of an animal or plant, the linguist can note down both the name in the relevant language and the corresponding zoological or botanical name given in the book. However, this method can be used reliably only for animals that have obvious distinguishing features, such as large mammals. Pictures of small animals such as birds and snakes, or pictures of plants are often confusing for the consultant because pictures of different varieties or species frequently show only slight differences in form or colour. Consultants generally rely on several cues to recognise plants and animals, such as the area in which the object has been spotted, the way in which it moves, grows, etc. Not even books with excellent photographs of plants and animals in their immediate surroundings can present each object in the detail of colour, movement, and sound that one gets from a real-life view of the object.[6] A language documenter interested in making a comprehensive list of native ethnobiological vocabulary will need to go on treks into the countryside with the consultant, preferably in the company of a botanist or zoologist familiar with the local flora and fauna. Not all documenters have the luxury of taking a biologist along; in such cases, it is possible to take detailed photographs that can later be shown to a knowledgeable biologist.[7] Obviously, it is easier to use photography as an aid in the documentation of traditional knowledge of plants than of animals, since animals are difficult to spot, much less photograph.

2.2 What language documenters gain from such work

Language documenters have much to gain from engaging in work related to ecology. Language involves ways of talking about the environment in which a community of speakers exists; therefore, documentation of a language is richer if it includes that part of language that deals with the environment. Vocabulary lists can be augmented with a comprehensive set of names for plants and animals, and parts thereof. Such names also provide data useful for historical reconstruction because they enable the comparison of cognate names among several linguistically-related communities. Some grammatical items require investigation of the community's perception of items in the world, e.g. in the study of noun classifiers, animacy and humanness distinctions, verb classes, and spatial terms. Studies of plant and animal names provide clues to the semantic

[6] For example, books cannot show an animal in motion or convey animal sounds, except in those rare cases in which a book is accompanied by video- or audio-recordings.

[7] It is important to consult biologists about what kind of photographs they would need to enable identification of the plant or animal. For example, the botanist who I consulted said that he would need to see arrangements of parts of the plant – the arrangement of stalks on the stem, of leaves on the leaf-stalk, of sepals and petals on the flower, etc. He also needed to see details about the colour and surface form of various parts of the plant, such as whether the stem was ribbed, or whether the leaf had a furry surface.

distinctions encoded in these grammatical items, e.g. Martin (2004) says that several plant names in Totontepec, a Mixean language, end in the suffix *–dum,* a classifier used to refer to round things. The plants so named possess certain spherical parts, e.g. *aaydum* (botanical name: *Annona cherimola* Miller) has spherical fruits and *maydum* (botanical name: *Mimosa albida Kunth)* has ball-like inflorescence. The linguist's collection of records of the community's use of language is enhanced by the inclusion of narratives in the native language about plants, animals, landscape, seasons, use of natural resources (food, medicine, housing, tools, preparation methods). Video-recordings of native speakers engaged in activities involving use of natural resources are also useful in language documentation because they provide visual documentation of the context in which this speech was produced, as well as a record of additional factors, such as gestures, that accompanied the recorded speech segment. In addition, linguists can attempt to study maintenance or loss of traditional knowledge as well as language across generations by comparing lists of plant and animal names collected from members of various generations, or by studying the cross-generational use of grammatical items that involve knowledge of the environment (such as classifiers or spatial terms).

3. Conclusion

In summary, language documenters have much to gain from collaborative work with ecologists. By contributing their skills to the study of traditional ecological knowledge, linguists can participate in the development of conservation programmes that address the needs of indigenous groups and respect their right to continue with traditional practices involving utilisation of natural resources. Community-sensitive conservation programmes such as the fishery-management programme described above do exist. However, there are a substantial number of conservationists who advocate the creation of ecological zones 'undisturbed' by human presence, and are all too willing to push aside the rights of indigenous communities to live in these zones and maintain their traditional ways of life.[8] By using their linguistic skills to aid in the documentation of traditional ecological knowledge, language documenters can join in efforts to counter this disturbing trend. Such documentation will also create records for posterity of a valuable part of human cultural heritage.

[8]This approach to conservation can, for example, be seen in the reactions of many ecologists in India to a bill about "tribal" forest rights that is currently being debated in the Indian parliament. This bill, entitled the "Scheduled Tribes (Recognition of Land Rights) Bill 2005, if passed, will guarantee that ethnic groups who traditionally lived in forest lands have the right to continue to live there, and to continue with traditional methods of forest resource use. Several environmentalists have been writing articles in Indian newspapers arguing against the passage of this bill. They argue that, if India is to preserve its last remaining forested areas, indigenous people in these areas must be evicted or have their rights to use forest resources severely curtailed (see e.g. Soni (2005) for one newspaper article that discusses the conflict between forest conservation and the rights of traditional forest dwellers).

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