



# LUND UNIVERSITY

## Development and the documentation of indigenous knowledge: Good intentions in bad company?

Lindh, Karolina; Haider, Jutta

*Published in:*  
Libri

*DOI:*  
[10.1515/libr.2010.001](https://doi.org/10.1515/libr.2010.001)

2010

[Link to publication](#)

*Citation for published version (APA):*

Lindh, K., & Haider, J. (2010). Development and the documentation of indigenous knowledge: Good intentions in bad company? *Libri*, 60(1), 1-14. <https://doi.org/10.1515/libr.2010.001>

*Total number of authors:*  
2

### General rights

Unless other specific re-use rights are stated the following general rights apply:  
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00

## Development and the Documentation of Indigenous Knowledge: Good Intentions in Bad Company?

**Karolina Lindh and Jutta Haider**

Karolina Lindh, Research Assistant, Division for Archival Studies, Library and Information Studies, and Museum Studies, Department of Arts and Cultural Science, Lund University, Lund, Sweden.

Email: karolina.lindh@kultur.lu.se

Jutta Haider, Senior Lecturer, Division for Archival Studies, Library and Information Studies, and Museum Studies, Department of Arts and Cultural Sciences Lund University, Lund, Sweden.

Email: Jutta.Haider@kultur.lu.se

### Abstract

There appears to be an increasing interest within library and information studies (LIS) in so-called indigenous or traditional knowledge. Discussions on usefulness and applicability of indigenous knowledge in development seem to be motivating electronic documentation and the creation of databases. Often, definitions provided by international organisations are drawn on unquestioningly, while power structures embedded in descriptions provided by such organisations are ignored. This article aims at drawing attention to the ways in which international organisations define and talk about indigenous knowledge in relation to development. This is achieved by critical, close reading of six publications issued between 1998 and 2008 by the following organisations: WIPO, UNESCO, ICSU, UNDP, the World Bank, and IFLA. The critical reflections are also intended to shed light on how documentation practises can be understood as extensions of power. For this the authors draw on Foucauldian notions of power and discourse as well as on post-development and post-colonial perspectives. Relationships and discursive procedures for statements on science, development discourse and intellectual property rights, are shown to be influential in the creation of the concept indigenous knowledge. Relating indigenous knowledge to post-colonial and post-development studies re-

veals how indigenous knowledge is created and kept marginalized within the discursive structure of development. The analysis concludes by showing how knowledge named indigenous knowledge is trapped and created in a circular flow which legitimises international aid organizations, development discourse and the intellectual property rights system. The article concludes by demanding greater awareness among LIS researchers and practitioners regarding the culturally embedded character of knowledge practices and of the power of classifying and defining.

### Setting the scene

In 2002 the International Federation of Library Associations and Institutions (IFLA) made a statement on indigenous knowledge recognising

... the significance, relevance and value of integrating both indigenous traditional knowledge and local community knowledge in providing solutions to some of the most difficult modern issues and encourages its use in project planning and implementation. (IFLA 2002)

There appears to be an increasing interest within library and information studies (LIS) in so-called indigenous or traditional knowledge. The two terms, indigenous knowledge and traditional knowledge, are often used synonymously. Typically they are used to refer to an often, although not always, un-codified form of knowledge which existed prior to the arrival of western science. Thus, it is a concept which is used for describing very different kinds of knowledge. Yet, they all share a distance to codified scientific knowledge, be it through geographical, cultural or even temporal distance. We will see several definitions put forward by different institutions throughout this article. We do not attempt to add yet another definition to the repertoire of those already existing or to improve upon them; neither do we want to find the correct one. Rather, it is our intention to look at descriptions of the concept and to understand more

about the power structures, ideas and premises that give rise to the very possibility of the concept of indigenous knowledge.

However, in addition to the already mentioned common distance to scientific knowledge, there is something else which the forms of knowledge commonly called indigenous or traditional also all seem to share. It is something which in some ways always slips away: a little extra, a notion which says the knowledge is not really as reliable, not as good, not as real. It is this indefinable something which is really interesting: the ways in which indigenous knowledge are placed in the discursive vicinity of some meanings, yet not of others, shapes the notion in certain ways which are influential. It is this additional meaning arrived at through certain combinations and implications, yet not always mentioned directly in definitions, which we are after.

The interest within LIS for indigenous knowledge is also reflected in the increasing number of articles on the topic which are published in the discipline (e.g. Ngulube 2002 Sithole 2007; Stevens 2008). With heightened interest, perspectives have diversified and shifted. There is on the one hand, a focus on knowledge management and tools for organising and managing indigenous knowledge without exploring and questioning definitions of indigenous knowledge, often hand-in-hand with normative definitions of the phenomenon (Ngulube 2002; Stevens 2008). On the other hand, and especially more recently, one finds a number of critical investigations concerning documentation of indigenous knowledge (Augusto 2008; Agrawal 2002).

Reoccurring themes in LIS articles on indigenous knowledge are intellectual property rights in connection with the phenomenon of bio-piracy (Sen 2005; Sithole 2007) as well as the issue of cultural heritage (Ngulube 2002). Bio-piracy is typically invoked by reference to profit oriented exploitation of indigenous knowledge by pharmaceutical companies in order to develop commercial products (Armour and Harrison 2007). As a form of cultural heritage, indigenous knowledge is often dealt with from the perspective of documentation. That is, it is seen as requiring documentation for its continued survival or as an addition – and this is interesting – to development in the so-called third or developing world. To put it simply, currently, the dominating motivation for taking up the issue of indigenous knowledge seems to work along the lines of reasoning that documenting in-

digenous knowledge is for a ‘good cause’ – rather vaguely defined or sometimes simply left undefined as supposedly obvious – and this in itself is justification enough.

However, while interest has increased, there is still a conspicuous lack of investigations trying to unearth what these ‘good causes’ imply, refer to, and especially from where they get their authority or simply their justification. Hence, we feel it is not only paramount, but also very timely, to take a closer look at some of these ‘good causes’ and in particular at the one that seems to be most common and least contested and that is *development*. Specifically, we want to examine how power is articulated through the representation of indigenous knowledge by some of the larger international organisation, such as the World Intellectual Property Organization (WIPO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Council for Science (ICSU), the United Nations Development Programme (UNDP), the World Bank, and of course IFLA. After all, these are the very organisations providing the documents and hence the authority upon which authors in LIS typically lean to define indigenous knowledge, to establish its worth, to delineate it against other forms of knowledge, and to mark it out as a special kind. A way to consider this is by looking into these international organisations’ definitions and other descriptions of indigenous knowledge and to examine how these definitions build on power relations connected first and foremost to development discourse.

Hence, to clarify, this article aims at drawing attention to the ways in which the above mentioned organisations, some of which also embody “big” development, define and talk about indigenous knowledge in relation to development. After all, they constitute the authorities LIS researchers and practitioners often lean on when defining indigenous knowledge and hence deserve to be questioned. In addition, the critical reflections are also intended to shed some light on how documentation practises can be understood as extensions of power. For this we will draw on a Foucauldian notion of power which is intrinsically linked to both knowledge and with it discourse, and which has proven to be very influential in post-development and post-colonial theory.

What we mean by this will become clearer in the subsequent section. However, prior to this, we will provide a quick overview of some of the more salient

issues that come up when the documentation of indigenous knowledge is discussed, mostly in LIS, but also with reference to the way in which the issue is talked about outside the field.

### Documenting indigenous knowledge

Sithole (2007) argues that documentation is a way to protect indigenous knowledge from exploitation by actors other than its true originators. Ngulube (2002, 95–96) points out that documentation, apart from serving the purpose of preservation, makes indigenous knowledge easily available to professionals within the development sector. Both authors have a positive view of documentation, which, they argue, not only protects indigenous knowledge from exploitation, but also makes it available to those with good intentions and also preserves it from extinction. Availability and preservation are recurring themes when dealing with indigenous knowledge within LIS. While the issue of how to deal with indigenous knowledge from an information management perspective is often discussed by focusing on knowledge organisational tools (Ngulube 2002; Sen 2005; Stevens 2008), the question of how the gathering of indigenous knowledge should be carried out and by whom is often neglected. For instance, Ngulube (2002, 96) is content with saying: "... library and information professionals tend to organise what has already been collected." Moreover, how indigenous knowledge is constructed, as well as how and which power relations are imbedded in the concept, is usually overlooked.

Although there is no general consensus about how to conceptualise indigenous knowledge within LIS, references to international organisations such as not only the World Bank or UNESCO, but also others, are common when defining the concept (e.g. Sen 2005; Kargbo 2006; Subba Rao 2006; Sithole 2007; Stevens 2008). The argument made often starts from the assumption that preservation and documentation are ways to ensure the future existence of indigenous knowledge, which today is under threat of extinction (Sithole 2007; Stevens 2008). How this situation occurred and how it relates to other societal processes is usually ignored. Likewise, who the intended end-users of digital collections of indigenous knowledge are, and what interests the originators of indigenous knowledge might have, are not discussed.

Yet, it is precisely these issues that also need to be addressed within LIS to come to a better understanding of how the concept of indigenous knowledge is constructed and in whose interest the issue is raised. Obviously, this is a complex area escaping simple explanations. The interests at stake and actors involved, the discourses evoked, and the power structures upon which they are built are by no means uni-dimensional and might even be conflicting at times. Yet, these are relevant questions that need to be addressed, and it is clearly of importance to investigate the foundations upon which such a seemingly innocent concept like indigenous knowledge is built in LIS.

Outside LIS, documentation of indigenous knowledge has been discussed in more nuanced ways, specifically in ways that take seriously the importance of the power/ knowledge link (Agrawal 2002, 2004; Augusto 2008). For instance, one way of doing this is explored by Augusto (2008), who proposes to consider how electronic media may differ from colonial archives of objects. Augusto (2008) argues that electronic archives and databases make possible the re-contextualising of processes and practices in which objects of knowledge are imbedded. Accordingly, including the originators of indigenous knowledge in the process of collecting and documenting it provides a way to overcome cognitive injustice and epistemic inequalities (Augusto 2008). Considering indigenous knowledge as dynamic and as part of local as well as global knowledge, and in turn knowledge as more than knowledge about substances and plants but also as processes surrounding the production and spread of knowledge, does prevent de-contextualising indigenous knowledge (Augusto 2008). By considering how epistemological differences may affect the representation of knowledge, this approach to the documentation of indigenous knowledge helps to understand the social and cultural production of knowledge as well as the construction of databases.

The way in which indigenous knowledge is often presented, as an issue of development, stands in a certain tradition within development discourse, salient especially in recent years. Currently, the dominant paradigm within the development sector is sold on the idea that development is a question of information and knowledge. Alas, the sector understands itself as dealing with precisely these two. One need only think of the World Bank which re-

invented itself as the *Knowledge Bank* at around the turn of the century. Knowledge is here understood as a resource fundamental for well-being and development (World Bank 1998a). Yet, what is typically forgotten is that knowledge is not neutral, but rather cultural, social and political, making power an inherent part of its production and dissemination (Mehta 2001). Mehta's critical examination of the World Bank's self perception as the knowledge bank shows how knowledge is treated as a commodity within international development and how the Bank neglects its own position as a dominant actor, thereby conveniently masking out power relations. This implies a perception of knowledge as neutral and as translatable between locations and contexts. According to Mehta (2001) knowledge has become a catchword within development, yet it has not led to the questioning or altering of power relations between south and north, and between different forms of knowing. Instead, Mehta (2001) argues, "knowledge for development" projects keep favouring certain interests. These are basically the same ones that already were established since the 1950s, more precisely those giving the World Bank monopoly on development (Mehta 2001) and consequently continuing the construction of a world consisting essentially of two halves, *already* 'developed' and *still* 'developing' countries.

Critical investigations of the foundations of the notion of indigenous knowledge are rare within LIS, specifically in relation to development. Likewise, as already hinted at above, there is a general tendency to focus on worthiness and benefits vs. destructiveness of the intellectual property rights system and WIPO in relation to indigenous knowledge. Yet, aspects of power structures inherent in development discourse and intellectual property rights are often only considered marginally. However, considering the various power relations inscribed in documentation projects as well as those at work in the intellectual property system, it is paramount to lay bare some of these in order to come to a better understanding of whose interests are at stake in these discussions.

### Power representation and knowledge

Foucault's notion of power and knowledge is influential in post-development and post-colonial perspec-

tives. These are insightful in this context, since we are dealing with marginalised knowledges and internationally dominant organisations. Post-colonial theory focuses on marginalised voices and perspectives and resistance towards dominating discourses, and it includes the study of power relations between dominant and marginalised segments of society. Colonialism categorised the world in a new way that benefited Western society, the spread of values originating from the west and their continued global domination. Also, colonial descriptions of non-Western populations were deprecating; the notion of the 'other' as a primitive and barbarian fostered Western dominance and presence. Said (2004) equips us with the concept of *orientalism* which helps to understand precisely this 'other-ing' through the connection of knowledge and power. *Orientalism*, Said writes, as knowledge about the orient, legitimised conquest, political interventions through depreciating descriptions of non-western populations and cultures. Representations of the 'other' as different from the 'norm', are shown to be highly influential for political and social interventions, by favouring a specific world order, hence serving certain interests, i.e. those of the dominant actors (Said 2004).

In a Foucauldian perspective, power is created, maintained and circulated in relationships. It is not simply created and imposed by institutions. These articulate already existing power relations (cf. Foucault 1980a). Therefore, power is constructive; power produces knowledge and discourses, that is "regimes of truth", discourses that are accepted and taken for truths within a certain society (Foucault 1980a, 119, 131). Discourses are created by the linking of statements to one another. Since phenomena may be added over time, this means discourses are changeable and dynamic, (Foucault 1972). Escobar (1995) has shown how development and the third world are such discursive constructions, created through the pairing of poverty, overpopulation and illiteracy from the period after the Second World War onwards. Articulated by governments and international organisations, such as the World Bank, development is seen as the cure to poverty in spite of the fact that poverty has in many places increased rather than visibly diminished since the beginning of the development project (cf. Mestrum 2002).

Discourses legitimise a certain kind of knowledge while disregarding other ways of knowing. These disregarded forms of knowledge, that is knowledge

which is not given space within a certain discourse is something which Foucault refers to as *subjugated knowledge* (Foucault 1980b). This knowledge constitutes either historically marginalised forms of knowledge that may reappear in the form of criticism or knowledge that is not considered sufficiently reliable or scientific, for instance the patient's in relation to the doctor's (Foucault 1980b). It is also possible to think of the third world population's knowledge as *subjugated knowledge* in relation to international development agencies' knowledge; for instance, when the World Bank claims expertise on development, knowledge and poverty eradication, and these days – seemingly paradoxically – even on indigenous knowledge.

Insights from Foucault's notion of power and knowledge, Said's concept of *orientalism*, as well as the ways in which these ideas have been applied and elaborated on further in post-development thinking (Escobar 1995; Andreasson 2005) are valuable for understanding how indigenous knowledge is conceptualised in LIS research and practice.

### Material selection and methodological remarks

How the notion of indigenous knowledge is legitimised within development, how it is created and circulated, is of importance for LIS, since the development context is the most common reference within LIS when talking about indigenous knowledge. This development context is typically represented by certain international organisations which hold some form of definitional power over development and all that has to do with it.

We chose to analyse certain key texts by a smaller number of these organisations which more recently have become involved in the issue of indigenous knowledge, in order to see more clearly some of the discourses drawn on and to lay bare some of the power structures inherent in them. How we reasoned when selecting these texts and what limited us is described in the following.

First of all, the texts we chose for our analysis needed to fulfil the following criteria. First, they needed to be published by leading international organisations involved in some area of international development and policy shaping. Second, they needed to address the issue of indigenous knowl-

edge and give it reasonable space in the text; and third, they needed to have appeared in the decade preceding the analysis, that is between 1998 and 2008.

Six texts issued by the following five organisations were chosen: the World Intellectual Property Organisation (WIPO), the World Bank, the United Nations Development Program (UNDP), the United Nations Educational Scientific and Cultural Organisation (UNESCO), the International Council for Science (ICSU) and finally the International Federation of Library Associations (IFLA).

These organisations can be assumed to influence organisations operating on other levels since their viewpoints may be taken for some form of authoritative 'truth'. In other words, as global organisations they have the power to define the world. This means also their perspectives, definitions and policies influence smaller organisations; they provide norms and guiding principles (cf. Haider 2008)

The World Intellectual Property Organisation (WIPO) has engaged in collaborations with NGOs, indigenous peoples, representatives from states and international organisations to verify their expectations on the intellectual property right system and its usefulness for the protection of indigenous knowledge. The United Nations (UN) addresses the issue of indigenous knowledge in various arenas, including the *Convention for the Safeguarding of Intangible Heritage* (UNESCO, 2003) or the *Convention on Biological Diversity* (UNESCO 1992). The World Bank is probably the best known, and at the same time most controversial, international aid and development organisation. Since they, as we have already hinted at, emphasise the importance of knowledge for poverty reduction, their definitions of indigenous knowledge are especially interesting. The International Council for Science (ICSU) is a global organisation focusing on promoting science and its benefits for humanity. The International Federation of Library Organisations (IFLA) differs from the other organisations represented here because it is smaller and it has a narrower agenda with its focus on library related issues. Still, we feel their position is important, not least since it shows how definitions within the development sphere have impacted international library and information science research and practice.

Since indigenous knowledge is a rather new phenomenon within the development sector, not many

texts exist addressing the issue to a sufficient extent. Furthermore, usually texts are not specifically dedicated to the topic of indigenous knowledge, but also take up other issues. Indigenous knowledge is often just one among several topics discussed. However, this makes the texts all the more interesting. Foremost, it shows how relationships to other issues are established and how through that the construction of indigenous knowledge functions. In other words, the link to other phenomena is important for gaining and retaining legitimacy.

All publications are freely available and easily accessible online for anybody interested. Yet, the characters of the chosen texts differ. The text by WIPO (2005) is a general interest booklet intended for the interested public, as is the text by ICSU and UNESCO (ICSU/UNESCO 2002). The text by UNDP (2002) is a policy statement on the organisation's engagement concerning indigenous people. The World Bank is represented by two texts, one from 1998 (World Bank 1998b) and the other from 2002 (Gorjestani 2002). Both are on the use of indigenous knowledge in development. Finally, the text by IFLA (2002) is a short statement approved and issued by the organisation in 2002.

Obviously, the texts do not speak explicitly about power. Poverty and marginalisation are on the other hand commonly mentioned. As pointed out above, these concepts are fundamental for realising development (see Escobar 1995; Mehta 2001). Drawing on Foucault's understanding of power and knowledge, the establishment of a relationship between development, marginalisation, poverty and indigenous knowledge articulate power. Following Ronald Day's (2005) take on Foucauldian discourse analysis, the identification of hierarchies, relationships and values in the encounter of actions and documents, captures power relations and structures inherent to these. Identifying discursive procedures, relationships and processes that connect statements to one another, makes the creation of discourses visible (Haider & Bawden 2006, 373). This is what we attempted through repeated close reading of these six publications, specifically by focusing on the various connections indigenous knowledge is made to enter in the publications analysed and the discursive consequences of these connections. We have chosen to illustrate our analysis with a limited number of quotations. However, these are meant to be illustrative and are by no means exhaustive.

## Indigenous knowledge, science, and development

The texts all talk about indigenous knowledge and relate it to development in some way. Yet, none of the texts discusses or defines the concept of development, a concept which after all has received severe criticism, especially within post-development studies, and which cannot easily be retained as one that is unproblematic (Escobar 1995; Rist 2002). Indigenous knowledge is a rather recent addition to development which used to be seen as an obstacle for progress but today is considered a necessity for sustainable development (Agrawal 2004).

What is referred to as indigenous knowledge may contain a wide array of ideas and practices. What the proper term should be is a commonly raised issue in the texts, but still they provide generalised definitions of indigenous knowledge described as *oral*, *holistic*, *local* and *applicable* in everyday life in communities where it is to be found. Indigenous knowledge is often used synonymously with traditional knowledge. Terms such as fishermen's knowledge, ethno-botany or ethno-biology are also employed, but to refer to more specific contexts. All of the above mentioned terms are used in discussions in languages such as English, French and Spanish and never in the languages of the originators. It is even acknowledged they do not use these terms.

It is important to note that the term "traditional knowledge" is only one of several designations currently employed by practitioners in the field. A variety of scientific, social and political considerations make it all but impossible for a single term to suit all settings – each one has its shortcomings. (ICSU/UNESCO 2002, 9)

Who the "practitioners in the field" are is unclear, but probably those working within development.

We do agree the naming of knowledge is social and political. Yet, while ICSU/UNESCO acknowledge the difficulties in finding an adequate term "to suit all settings," they do not acknowledge the inscribed power relation such a project must build upon.

According to the World Bank: "Indigenous knowledge is not confined to indigenous peoples alone – all communities have developed their own body of knowledge over generations" (World Bank 1998b, 1).

It may seem any form of knowledge may be indigenous. However, this is not really the case. No matter which of the above terms is used, it seems that the ideas these are based on are the same, and the knowledge referred to is marginalised and subjugated in relation to dominant actors within global development.

In attempts to define indigenous knowledge, the most common comparison is with science, which provides for the 'norm' against which it is delineated.

Many issues related to sustainable natural resources management and to biodiversity conservation, as well as its sustainable use, require indeed a coupling of scientific and traditional knowledge.

...

Thus, moving towards sustainable development in many areas will require a closer cooperation between scientists and the holders of traditional knowledge which include local people in general an indigenous people in particular. (ISCU/ UNESCO 2002, 8)

Agrawal (2004) argues that it might make sense to talk about different forms of logic and epistemologies instead of naming knowledge traditional or scientific. Traditional knowledge is a constructed category, and knowledge named traditional is named so because of how it is created, it is not the knowledge *per se* that makes it traditional. The categorisation traditional knowledge is made by science, and thereby possibilities for dialogue are diminished. Categories, such as traditional knowledge and science reproduce divisions such as 'us' and 'them'. This is a recurring theme in the texts; binary oppositions are fundamental for development.

The World Bank made a clear statement regarding their view of the connection between knowledge and development in their *Knowledge for Development World Development report 1998/99*:

Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of poor peoples everywhere. Yet billions of peoples still live in the darkness of poverty – unnecessarily ... . Poor countries – and poor peo-

ples – differ from rich ones not only because they have less capital but because they have less knowledge. (World Bank 1998a, 1)

The quote illustrates what seems to be a common notion and is the dominant perspective since the Second World War: that science and technology are fundamental for progress and development (Escobar 1995, 35); that knowledge can extinguish poverty and that lack of knowledge is the cause of poverty, consequently poor people are not knowledgeable. This is a perspective which is quite widespread also within LIS and which amongst others finds its expression in compounds such as information poverty (cf. Haider and Bawden, 2006, 2007). The above lines, formulated by the World Bank, encapsulate a common understanding of science as contextually detached and universal (cf. Harding 2006). At least since the end of the 20th century the idea that science can diminish poverty has been questioned more vigorously (Briggs & Sharp 2004, 662). Other ideas, which may seem contradictory to the above cited, have surfaced, most importantly that different forms of knowledge can be added to one another, such as indigenous knowledge to technology and science, and that from this improved knowledge can derive. To fully understand the possibilities of this happening, political aspects and power relations must be considered. After all these constitute a framework, which may facilitate as well as prevent different forms of knowledge being joined together (Briggs & Sharp 2004, 666).

Statements about indigenous knowledge from organisations such as the World Bank, UNESCO, UNDP or WIPO, may occasionally seem contradictory. It seems indigenous knowledge does not fit their common criterion for knowledge, because it is produced and communicated in ways different from science. Science is, to return to a point made previously, a common reference; partly for proving the effectiveness or non-effectiveness of indigenous knowledge, but also for comparative purposes. Indigenous knowledge, described as holistic, seems to accomplish deeds science is unable to attain. Plenty has been written on science and indigenous knowledge, their differences and the relationship between these two forms of knowledge (e.g. Bala & Joseph 2007; Sillitoe 2007). It is also a reoccurring theme in texts by international organisations about development. Yet, as has been pointed out by Agrawal



(2002), little do indigenous peoples benefit from having their knowledge defined by scientific criteria and from having their knowledge made indigenous/traditional by definition. Not much is left when that same knowledge, converted into 'science' reaches databases and is finally catalogued. Proving the functionality of indigenous knowledge by scientific criteria to motivate preservation and documentation does not alter power relations between indigenous peoples and other segments of society. Political aspects of knowledge are missed and instead, indigenous knowledge loses its specific cultural traits usually inherent in definitions of indigenous knowledge (Agrawal 2002).

When dealing with indigenous knowledge the importance of its social and cultural context is emphasised. This is usually not the case when talking about science. What then are these organisations' notions of the concept indigenous knowledge, and how do they relate it to development?

### **Indigenous knowledge and wealth (development)**

Indigenous knowledge is – in the texts analysed – repeatedly described as poor or local peoples' knowledge, that is marginalised peoples' and when defined, attention is paid to its cultural context even though rarely explained. Continually, indigenous knowledge is described as a local form of knowledge. However, the idea of indigenous knowledge as local also leads to difficulties, most of all the problem that knowledge cannot be removed or documented without losing its distinctive features. Referring to unnamed 'experts' the World Bank (1998b, iii) report includes the following cautionary statement: "IK cannot or should not be exchanged across communities because it could be irrelevant or even harmful outside its original cultural context." A few pages later, we learn: "when transferred to other places, there is a potential risk of dislocating IK" (World Bank 1998b, 2).

What makes it local creates the problem and is at the same time part of indigenous knowledge's 'essence', as it is commonly described. This is also what makes it useful for development. Science may appear as the opposite of this local and limited form of knowledge. Yet it is, as for instance Harding (1994, 2006) has shown, just as much a cultural pro-

duct as any other knowledge. While claiming value neutrality, science can in fact be seen as a cultural product specifically because of its institutional connection and pretensions on universality, as well as its said value neutrality (cf. Harding 2006). It is undeniable that knowledge not originating from Europe or laboratories has been important for scientific progress. Throughout history science has appropriated non-western forms of knowledge. The incorporation has thus favoured western expansion and the colonial enterprise (Harding 2006). Within development context, domination is of course subtler than during colonial times, but similarities still exist, as for instance Escobar (1995) has highlighted. Both discourses produced knowledge that made possible the exertion of dominance over countries in what is now known as the third world. Knowledge is not only about content but importantly also about political, social and historical processes that has motivated its creation and stands for its legitimacy. The World Bank describes the originators of indigenous knowledge in the following way:

Indigenous knowledge is an important part of the life of the poor. It is an integral part of the local ecosystem. IK is key element of the "social capital" of the poor; their main assent to invest in the struggle for survival, to produce food, to provide shelter or to achieve control of their own lives. (World Bank 1998b, 4)

In the quote above indigenous knowledge is explicitly linked and talked about as poor peoples' knowledge and as a means whereby the proprietors of that knowledge have the possibility of controlling their own lives. When indigenous knowledges are linked to indigenous people, poverty and marginalisation is even more apparent. Indigenous people are described as:

... a distinct group among the poor and are often excluded from decision-making processes and marginalized by development. It is important to note that indigenous peoples are often categorized as poor; however, they do not regard the term as appropriate since they consider themselves rich in knowledge and culture. (UNDP 2002, 2)

This quote also emphasises the connection between knowledge and wealth/poverty/marginalisa-

tion, but the categorisation of indigenous peoples as poor is one done by others than themselves. As shown by Escobar (1995) poverty is needed for development discourse to be meaningful. Depictions of holders of indigenous knowledge as poor and marginalised call for development to intervene. Yet at the same time, indigenous knowledge is described as useful, a tool for survival and – seemingly contradictory – development. UNDP goes on to describe indigenous peoples not only as poor, but also as:

... often unable to take advantage of their most distinctive asset, their local knowledge, at the same time that is increasingly being commercialized by international enterprises under the protection of a global patent regime ... (UNDP 2002, 3)

*Taking advantage* is not an objective action but must be seen in relation to certain interests. Who is taking advantage of what, or even whom? Historical events that may have led to the displacement of indigenous knowledge, such as colonialism, are blanked out and not discussed. While outsiders, for a long time, have taken advantage of indigenous knowledge, development is now teaching holders of indigenous knowledge how to take advantage of their (own) knowledge in unison with the framework provided by development. Indigenous knowledge has for a long time not been taken into consideration within international development but only existed in its margins as a form of *subjugated knowledge* not qualified enough, knowledge lacking legitimacy and existing in the margins of western society. Ideas such as sustainability and community participation are aspects of development that seem to make indigenous knowledge a valuable part of development. But the conditions for incorporation of indigenous knowledge within development seem to be governed by power relations set and articulated by development discourse.

### Participation, exchange and learning

Exchange of knowledge and the use of indigenous knowledge in development is said to make it more successful. The need for involving the recipients is repeated time and time again, while development is said to be about collaboration: "... a critical dimen-

sion of building an enabling environment is providing the space for the voices and concerns of indigenous peoples to bear in influencing the policy process" (UNDP 2002, 10)

According to Briggs and Sharp (2004, 664–666) communication within international aid organisations is governed by western preconditions. Meetings are held in western metropolitan areas, communication takes place in English, French or Spanish and the language used is that taken from science and philosophy. Therefore, indigenous knowledge must adopt this same way of expression to make itself heard.

... the Vice President of the World Bank's African Region, supported a vision of global knowledge partnership that will be realized when the poor participate as both users of and contributors of knowledge. (Gorjestani 2002, 3)

... a truly global knowledge partnership will be realized only when the people of the developing countries participate as both contributors and users of knowledge. There is, therefore, a need not only to help bring knowledge to the developing countries, but also to learn about indigenous knowledge (IK) from these countries, paying particular attention to the knowledge base of the poor. (World Bank 1998b, i)

This exchange is not taking place between equal partners, and is not based on rules benefiting both sides equally. It is hard to imagine an exchange between these partners which takes place on principles set up and governed by both of them. The unequal relationship is already inscribed into the very descriptions of the partners, international aid agencies and '*poor*' people. This does not mean to suggest that poor people do not possess knowledge, neither that they do not contribute. Spivak's (1994) famous notion of the inability of the subaltern to speak due to the dominant actors' control over communication flows and channels – and the very ways of speaking 'correctly', of speaking to be understood – highlights aspects of power. How the relationship between developed and underdeveloped parts of the world is described articulates power, and is equally present in the context of development. Indigenous knowledge is created as a homogenous phenomenon by linking it to poverty and development and as a counterpart to science. The poor, local and indige-

nous people's living conditions are described, but interpretations of these take place within international organisations. In other words, indigenous knowledge is given meaning first within development. Indigenous knowledge is 'created' in a way that fits development and through that control and circulation of knowledge is maintained.

IFLA recommends the following for the preservation of indigenous knowledge

Involve Elders and communities in the production of resources and teaching children to understand and appreciate the traditional knowledge background and sense identity that is associated with indigenous knowledge systems. (IFLA 2002)

Indigenous knowledge has become part of development discourse, as a means to involve local communities and make development more participatory. This may seem paradoxical. Why demand the involvement of people into something they are already, by definition, linked to and involved in? It seems what is considered the cure, development, is actually part of the problem. Indigenous knowledge is not only about improving peoples' lives. The relationship between local communities, local knowledge as indigenous knowledge, and development organisations articulates power relations, prevailing on a structural level, and the capacity these possess to control knowledge and knowledge reproduction.

As a valued resource for development, indigenous knowledge has been incorporated into the agendas of international development agencies.

... Indigenous institutions, indigenous appropriate technology, and low-cost approaches can increase the efficiency of development programs because IK is a locally owned and managed resource. (Gorjestani 2002, 2)

The depiction of indigenous knowledge as useful, as it is undertaken by international organisations, is always done with good intentions, not denying indigenous knowledge may work for their purposes. It is through descriptions, definitions and representations that it is appropriated by international organisations. Appropriation signifies control and the shift to "indigenous" and local does not include reconsiderations of purposes and who may actually have a say in the questions dealt with.

### **Ownership: documentation and rights**

Following on from Foucault, the world does not possess an inherent order of things apart from the one it is ascribed through descriptions of it. Categorisation takes place within this discursive framework. The Linnaean taxonomy is one example of how plants from foreign places were incorporated into a classification scheme and categorised according to new rules through which not only did the plants receive new names but also knowledge of the same plant and use of it were changed, forgotten or erased (Mills 2007, 47–48). Classification and representation of knowledge is socially and culturally constructed and constitutes a framework for further use and elaboration of that knowledge. Classification in LIS practice draws on an already existing categorisation of the world which is not shared by all societies and cultures. Classification and representation of knowledge becomes problematic when knowledge is derived from one society and represented and classified according to prevalent discursive framework structuring knowledge and understanding of another society (Bowker & Star 1999; Olsen 2002).

That knowledge has been exchanged between geographical places is a recognised phenomenon:

While interaction between traditional knowledge and science has recently emerged as an issue of widespread interest and concern, in actual fact the dialogue between these knowledge systems has a long history. (ISCU/UNESCO 2002, 13)

Although IFLA recognises that the character of traditional knowledge does not lend itself to print, electronic or audiovisual means of recording, their recommendations involve the following: "Implement programs to collect, preserve and disseminate indigenous and local traditional knowledge resources"; as well as: "Encourage the recognition of principles of intellectual property to ensure the proper protection and use of indigenous traditional knowledge and products derived from it" (IFLA 2002).

While knowledge needs not be tied to a specific place or static, it may be dependent on certain power structures. The intellectual property system may be one such. WIPO has begun investigating the possibilities of applying intellectual property rights and patent law on indigenous knowledge. This has become an urgent issue since pharmaceutical compa-

nies have patented plants, substances, and procedures that have long been used by indigenous peoples. This is commonly referred to as *bio-piracy*. Since the knowledge is usually passed on orally, documents are rare, *a priori* existence – as it is called in patent law – is hard to prove. According to WIPO, bio-piracy could be prevented if indigenous knowledge was documented and archived. *A priori* existence would be easy to establish, as would the identification of originators.

While this seems like a just idea, it is also obvious, however, that intellectual property law is based on Eurocentric and modernist ideas of knowledge.

Existing rules regulating intellectual property rights at the global level are not conducive to the participation of indigenous peoples in the national or global economy. Current patent laws, for example, do not recognize traditional knowledge and systems of ownership. They ignore the cultural diversity inherent in customary practices of sharing innovations as well as the diversity of opinion on what can and should be owned. The patent regime, under the TRIPS [Trade Related aspects in Intellectual Property rights, an integral part of the General Agreement on Trade in Services] agreement, renders the accumulated knowledge of indigenous peoples especially vulnerable to the interests of biotechnology companies. (UNDP 2002, 7)

Patent law appears as a form of *orientalism*. It is not applicable to all types of knowledge, and marginalised knowledge needs to acquire the shape and expression of western knowledge to escape abuse. Mehta (2001, 192) goes as far as arguing that the application of intellectual property rights makes it easier to control poor people's knowledge.

Conceptualising indigenous knowledge as embedded in specific communities and cultures and local in essence makes it complicated to document and preserve. *In situ* and *ex situ* are two different strategies for preservation. The former considers knowledge's contextual link to cultural practices while the latter sees knowledge as something neutral and de-contextualised, hence making gathering and storage in archives at all possible (Agrawal 2004, 4–5). Agrawal calls the latter a paradoxical strategy, since the common understanding of indigenous knowledge is based on the assumption that this knowledge

has an intricate connection to a specific local context and people. Extracting indigenous knowledge from its context would expose traditional knowledge to the same kind of criticism directed toward science, that it is de-contextualised and alienated from people's lives. Taking this argument seriously makes *ex situ* conservation difficult, since the local context becomes a necessity for not losing or altering the knowledge. *In situ* conservation means keeping the knowledge in the environment and context where it has been produced and is in use. This strategy is not related to documentation practices, but requires recognition of the rights of indigenous peoples to land and resources (Agrawal 2004). Either one of these two strategies depends on power relations, ultimately conceptualising indigenous knowledge as the knowledge of poor and marginalised people. Extracting knowledge from local contexts is a subtle way of exercising control. *In situ* conservation links knowledge to economic resources or rather to the lack of economic resources and implies control and domination in a more explicit way.

The kind of preservation WIPO favours is – in accordance with their mission – *ex situ*, that is, in archives and databases:

... as the reach of the intellectual property system in the global information society extends to new stakeholders, such as indigenous and local communities, their knowledge base, including in particular their TK, constitutes an increasingly relevant body of prior art the effective identification of which is of increasing importance for the functioning of the IP system. (WIPO 2005, 27)

The quote highlights the way the intellectual property system functions. Indigenous/traditional knowledge must conform to the functioning of patent law and never vice versa. Post-structuralist approaches to subject classification schemes and representations have shown that these are articulations of specific worldviews. By highlighting certain phenomena and disregarding others, power relations of a certain worldview are inherent to subject representations. How information and knowledge is represented constitutes frameworks for how that same knowledge may be used and reproduced (Olson 2002; Bowker & Star 1999). Documentation practice is thus a social and cultural practice that does not only move knowledge between geographical locations, but more im-

portantly, translates it between worldviews which may very well alter content and interpretation. What seems like a 'good cause', the protection of the knowledge of the poor, is also an exercise of power and control.

By passing through development agencies and into policies, indigenous knowledge is provided with legitimacy and then passed on back to the local level through the implementation of development projects. Through this circular flow, indigenous knowledge is added to the discursive structure of development. Its functionality and value within local communities provides the concept with legitimacy enforced by the idea of community participation within development. The context of development gives development agencies control over indigenous knowledge and the ability to extend their control and reproduce the conceptualisation of the world as consisting of binary opposites.

## Discussion

Through the identification of relationships between development, poverty, marginalisation, and indigenous knowledge an image of indigenous knowledge as a homogenous kind of poor peoples' knowledge emerges. By approaching indigenous knowledge from a Foucauldian point of view, investigating the link between knowledge and power, we have shown how the notion of indigenous knowledge is constructed within the same discursive structure as development. The introduction of indigenous knowledge into the development agenda does not alter power relations. Rather, we have shown how the introduction has taken place on already given prerequisites and power structures. A Foucauldian approach to knowledge and power shows how representation of knowledge can favour specific interests and enforce a certain worldview. In this case a worldview based on binary oppositions between poor and rich peoples, north and south, first and third world and so forth, favouring interests within the development sector that may not necessarily benefit the recipients.

The texts analysed provide an image of indigenous knowledge as homogenous and its originators and holders as poor and unable to explore this knowledge in their own best interests. Hence, the way in which indigenous knowledge is described and con-

ceptualised by international organisations does in fact not allow for it to be considered a *subjugated knowledge*, since it is constructed to fit the worldview already expressed by these organisations and fundamental for their existence. Within the context of international development, that which is defined as indigenous knowledge is already appropriated and adapted to the development context and whatever possibilities it might have to work as criticism are limited, at least on a policy level. Adding indigenous knowledge to development does therefore not alter power relations on a structural level. The impact on a local level cannot be dealt with here. Although of course the re-appropriation of indigenous knowledge by developing countries and communities may be used for their own purposes that do not, necessarily, have to coincide with international guiding principles. Not surprising, it seems that ultimately development is to a large degree about extending international organisations' worldviews, even though phenomena and terminology such as indigenous knowledge has become a part of it.

Objects of knowledge, like indigenous knowledge, are embedded in and reproductions of power structures. Representations and descriptions of these may be seen as articulations/manifestations of discursive structures. Therefore, critical considerations of these are of importance to LIS and documentation practices of indigenous knowledge, otherwise nothing else but the establishing and fossilisation of power relations will be achieved. Managing knowledge may be more than a means for dominating actors and principles. Indigenous knowledge is a phenomenon created by outsiders, that is other than its originators, so are also the communication channels used as well as the arena where the supposed exchange is said to take place. Documentation of indigenous knowledge cannot be a neutral act, but could be considered an expression of domination. Within the analysed texts, the notion of indigenous knowledge is joined with development discourse and incorporated into its structure within which what is indigenous or traditional is first constructed and defined.

In LIS, it is common practice to refer to organisations such as the World Bank, WIPO and UNESCO when defining indigenous knowledge, as well as when arguing for the need and reasons for documentation and preservation (Sen 2005; Kargbo 2006; Subba Rao 2006; Sithole 2007; Stevens 2008). This is often done unquestioningly and these institutions

serve as unchallenged sources of legitimacy and justification. In this sense, there is a quite explicit connection between international organisations' representations of indigenous knowledge and their motivations and the ways in which indigenous knowledge is dealt with within LIS. Indigenous knowledge is usually the essential characteristic of so-called developing countries and certain marginalised communities, and as such it is almost always connected to the project of development. Furthermore, by unquestioningly relying on the definitions provided by these organisations, advocates of indigenous knowledge often fall into the trap of essentialism, failing to question the foundations and interests underlying the definitions drawn on, instead understanding them as starting points from which action may be taken.

Instead of claiming a neutral position from which to document existing objects, which seemingly float in power-free space, the time has come for LIS, as a research field but also for its practitioners, to go one step further in questioning the cultural and social practices in which objects of knowledge are embedded as well as to call attention to how this occurs and to the significance of these practices and representations. What is named indigenous knowledge is more than information in need of management; indigenous knowledge encapsulates multiple worldviews, different ways of learning and communicating knowledge, apart from the obvious differences in content that may get lost in the construction of the concept indigenous knowledge. After all, knowledge is not weightless and its consequences are tangible, neither does it travel the world without restrictions.

## References

- Agrawal, A. 2002. Indigenous knowledge and the politics of classification. *International Social Science Journal* 54(173): 287–297.
- Agrawal, A. 2004. Indigenous and scientific knowledge: some critical comments. *IK Monitor* 3(3): 33–41.
- Andreasson, S. 2005. Orientalism and African development studies: the 'reductive repetition' motif in theories of African underdevelopment. *Third World Quarterly* 26(6): 971–986.
- Armour, KJ., and PS. Harrison. 2007. Poisons and politics – Indigenous rights and IP protection. *World Patent Information* 29(3): 255–261.
- Augusto, G. 2008. Digitalizing IKS: Epistemic complexity, data diversity and cognitive justice. *International Information and Library Review* 40(4): 211–218.
- Bala, A., and GG. Joseph. 2007. Indigenous knowledge and western science: The possibility of dialogue. *Race and Class* 49(1): 39–61.
- Bowker, GC., and SL. Star. 1999. *Sorting things out: classification and its consequences*. Cambridge, Mass.: MIT Press.
- Briggs, J., and J. Sharp. 2004. Indigenous knowledge and development: A postcolonial caution. *Third World Quarterly* 25(4): 661–676.
- Day, R. 2005. Poststructuralism and information studies. *Annual Review of Information Science and Technology* 39: 575–609.
- Escobar, A. 1995. *Encountering Development: The making and unmaking of the third world*. Princeton, New Jersey: Princeton University Press.
- Foucault, M. 1972. *The archaeology of knowledge and the discourse on language*. New York: Pantheon.
- Foucault, M. 1980a. Truth and power. In *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*, ed. C. Gordon, 109–133. New York: Harvester Wheatsheaf.
- Foucault, M. 1980b. Two lectures. In *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*, ed. C. Gordon, 78–108. New York: Harvester Wheatsheaf.
- Gorjestani, N. 2002. Indigenous Knowledge for Development. The World Bank, Indigenous Knowledge Program. URL: [http://www.worldbank.org/afr/ik/ikpaper\\_0102.pdf](http://www.worldbank.org/afr/ik/ikpaper_0102.pdf) [viewed February 21, 2008] (Archived by WebCite® at <http://www.webcitation.org/5iYyWgxm>)
- Haider, J. 2008. *Open Access and closed discourses: Constructing Open Access as a 'Development' issue*. PhD thesis. London: City University.
- Haider, J., and D. Bawden. 2006. Pairing information with poverty: traces of development discourse in LIS. *New Library World* 107(1228/1229): 371–385.
- Haider, J., and D. Bawden. 2007. Conceptions of 'information poverty' in LIS: a discourse analysis. *Journal of Documentation* 63(4): 524–557.
- Harding, S. 1994. Is science multicultural?: Challenges, resources, opportunities, uncertainties. *Configurations* 2(2): 301–330.
- Harding, S. 2006. *Science and social inequality: Feminist and postcolonial issues*. Urbana; Chicago: University of Illinois Press.
- International Council for Science/UNESCO. 2002. Science, traditional knowledge and sustainable development. International Council for Science. URL: [http://www.icsu.org/Gestion/img/ICSU\\_DOC\\_DOWNLOAD/65\\_DD\\_FILE\\_Vol4.pdf](http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/65_DD_FILE_Vol4.pdf) [viewed February 21, 2008] (Archived by WebCite at <http://www.webcitation.org/5iYygJ0Cc>)
- International Federation of Library Associations and Institutions. 2002. *IFLA Statement on Indigenous Traditional Knowledge*. URL: <http://ifla.queenslibrary.org/III/eb/sitk03.html> [viewed January 18, 2010] (Archived by WebCite at <http://www.webcitation.org/5mrzMN7tS>)
- Kargbo, JA. 2006. Indigenous knowledge and library work in Sierra Leone. *Journal of Librarianship and Information Science* 38(2): 71–78.
- McFarlane, C. 2006. Crossing borders: development, learning and the North-South divide. *Third World Quarterly* 27(8): 1413–1437.
- Mehta, L. 2001. Commentary: The World Bank and its emerging knowledge empire. *Human Organization* 60(2): 189–196.

- Mestrum, F. 2002. "De l'utilité de la 'lutte contre la pauvreté' pour le nouvel ordre mondial" (On the usefulness of the "fights against poverty" for a new world order), In *Les mots du pouvoir. Sens et non-sens de la rhétorique internationale* (Words of power. Sense and non-sense of international rhetoric), ed. G. Rist, 67–81. Genève: Press Universitaire de France, Nouveaux cahiers de l'IUED.
- Mills, S. 2007. *Discourse*. New York: Routledge
- Ngulube, P. 2002. Managing and preserving indigenous knowledge in the knowledge management era: challenges and opportunities for information professionals. *Information Development* 18(2): 95–100.
- Olson, HA. 2002. *The Power to Name*. Dordrecht: Kluwer Academic Publishers.
- Rist, G. 2002. *The history of development from Western origins to global faith*. London and New York: Zed Books.
- Said, E. 2004. *Orientalism*. Stockholm: Ordfront.
- Sen, B. 2005. Indigenous knowledge for development: Bringing research and practice together. *International Information and Library Review* 37(4): 375–382.
- Sillitoe, P. 2007. *Local Science vs. Global Science: Approaches to indigenous knowledge in international development*. New York, Oxford: Berghahn Books.
- Sithole, J. 2007. The challenges faced by African libraries and information centres in documenting and preserving indigenous knowledge. *IFLA Journal* 33(2): 117–123.
- Spivak, GC. 1994. Can the subaltern speak? In *Colonial discourse and post-colonial theory: A reader*, ed. P. Williams and L. Chrisman, 66–111. Cambridge: Harvester Wheatsheaf.
- Stevens, A. 2008. A Different way of knowing: tools and strategies for managing indigenous knowledge. *Libri* 58(1): 25–33.
- Subba Rao, S. 2006. Indigenous knowledge organization: An Indian scenario. *International Journal of Information Management* 26(2): 224–233.
- UNDP. 2002. UNDP and indigenous peoples: A policy of engagement. URL: [http://svc013.wic009tp.server-web.com/social\\_justice/conference/engaging\\_communities/unpan021101.pdf](http://svc013.wic009tp.server-web.com/social_justice/conference/engaging_communities/unpan021101.pdf) [viewed February 21, 2008] (Archived by WebCite at <http://www.webcitation.org/5iYyohExk>)
- UNESCO. 1992. Convention on Biological Diversity. URL: <http://www.cbd.int/doc/legal/cbd-un-en.pdf> [viewed August 21, 2009] (Archived by WebCite® at <http://www.webcitation.org/5jBlwS6PJ>)
- UNESCO. 2003. Convention for the Safeguarding of Intangible Heritage. URL: <http://www.unesco.org/culture/ich/index.php?pg=00022> [viewed August 21 2009]
- World Bank. 1998a. Knowledge for development: World development report 1998/99. Washington D.C.: Oxford University Press. URL: <http://www.worldbank.org/wdr/wdr98/contents.htm> [viewed May 24, 2008]
- World Bank. 1998b. Indigenous knowledge for development: A framework for action. URL: <http://www.worldbank.org/afr/ik/ikrept.pdf> viewed [March 3, 2008] (Archived by WebCite at <http://www.webcitation.org/5iYyuYb1v>)
- World Intellectual Property Organization. 2005. Intellectual property and traditional knowledge. URL: [http://www.wipo.int/freepublications/en/tk/920/wipo\\_pub\\_920.pdf](http://www.wipo.int/freepublications/en/tk/920/wipo_pub_920.pdf) [viewed February 21, 2008] (Archived by WebCite at <http://www.webcitation.org/5iYys9tYl>)

Received 21 August 2009; revised version received 10 December 2009; accepted 8 January 2010.