

Indigenous Knowledge Systems: Impact of policies of Department of Science & Technology

[Science and Technology](#) [1]

Meeting Report Information

Date of Meeting: 9 Nov 2010

Chairperson: Mr N Ngcobo (ANC)

Documents handed out:



[Department of Science & Technology presentation: "To what extent does policy affirm, promote and provide space for debate on IKS](#) [2]

Audio recording of the meeting:

[PC Science: Briefing by Department on Indigenous Knowledge Systems \(IKS\) - to what extent does policy affirm, promote & provide](#) [3]

Summary:

The Department of Science and Technology noted that during a recent meeting with the Portfolio Committee on Trade and Industry, to discuss the Intellectual Property Rights Amendment Bill (the Bill), questions had been raised whether a *sui generis* approach should not be taken to indigenous knowledge protection. The advantages of this approach were outlined. The Department noted that at one time or another, different forms of knowledge would dominate, and there was a need to recognise and not undermine other systems and respect the weight that each should carry.

The Department outlined the historical background to Indigenous Knowledge Systems (IKS) in South Africa, and the changes that recognised the worth of IKS outside of the leading academic institutions. There were now new moral and cognitive spaces to engage in constructive dialogue about the different knowledge systems. Knowledge was an intrinsic part of a democratic politics, and also played developmental, societal, and political roles, and the need for an inclusive knowledge network was recognised. The policy framework of the Department around IKS was set out and explained. The Department believed it must be integrated into the education and qualifications framework, and into national research and development. The roles of the private sector, communities, traditional leaders and women were to be defined. A proposed institutional framework was set out, which included the establishment of an IKS Fund to support research initiatives and skills development of IK holders. There was a need to integrate IKS policy with other policies, while also confirming its protection and its role within the global intellectual property (IP) infrastructure. IKS human resources should be seen as a national asset, with links to the National Innovation Strategy and promotion of public awareness and understanding. It was outlined that the challenges related to the newly-emergent fields of study, with disputes remaining around definitions and ethical considerations. So far it was not possible to mainstream IKS within the educational system. The hegemony of Western forms of knowledge protection was strong, and there were doubts whether the conventional intellectual property rights regime was sufficient to protect specific IKS rights. The legal instruments were currently fragmented, and there was insufficiently clear determination as to what constituted "knowledge" and who would decide upon it.

The DST noted that it had established the National Indigenous Knowledge Systems Office (NIKSO), to nurture national IKS priorities through proactive engagement in the field of science and technology, to open up academic opportunities, to promote and protect intellectual property rights (IPR) of communities and ensure equitable sharing of resources. However, there were debates around definitions, who should benefit and hold the commercial rights, and determination of the objectives, for how long protection was needed, and whether rights were already covered by the existing rights recognition, and finally whether there should be recognition of retrospective effect. The current system of protection was outlined, and it was noted that ownership was either designated as National Trust or belonged to individuals. The Department took the stance that traditional IPR were only one set of tools in protection of IKS, and proposed that IK should be included as a separate "bundle" of matters requiring protection, rather than trying to force it into the existing categories. Institutional, local and regional collaboration was required. It believed that NIKSO could deal with this but should be independently situated. The requirements for research were also outlined. The Department indicated what it had been doing to promote awareness and understanding of IKS to date, and finally set out the issues still to be debated. The requirements for the National Recordal System were also outlined, but there was a need to standardise across the departments and decide upon ownership and management of the database as also upon accreditation and certification frameworks. The Department believed it could bridge the chasm between IK production and other Western knowledge systems and illustrated the various sectors in which work was being done.

Members questioned how the origins of indigenous knowledge could be established, what would happen to the intellectual property rights of such knowledge once periods of ownership lapse, and how rights could be granted to communities rather than individuals. Members enquired when academic degree qualifications in IKS were to be established, asked about the patenting of sorghum and the impact of this on biotechnological development. They asked about the trial periods for HIV and AIDS and whether these had been completed, and asked about coordination with other government departments, how loss of IK information would be prevented, and whether it was possible to determine how widespread was the support for and use of IKS, as also whether it was likely that traditional medicines could be recognised, and were likely to be included in the medical aid societies' benefits. The Department was asked to outline its views on the suitability of the proposals in the Bill, and stressed that it had made a detailed submission to the Department of Trade and Industry on the Bill, and felt that there was a need to shift the emphasis, to provide for community ownership and to recognise the benefits of the *sui generis* approach, allowing IK to remain with the originators rather than being appropriated by the State. The Department was asked to consider hosting another National Workshop

Minutes:

Ms M Dunjwa (ANC) had been asked to stand in as Acting Chairperson until the Chairperson, Mr N Ngcobo, could return from a meeting he was attending in Somerset West.

Indigenous Knowledge Systems: Impact of policies: Department of Science and Technology (DST) briefing

Professor Yona Seleti, Chief Director, Department of Science and Technology, noted that she would discuss some issues that had been raised a while ago during a meeting with the Portfolio Committee on Trade and Industry around the proposed Intellectual Property Rights Amendment Bill (the Bill), and in particular whether or not it would be appropriate to try to register indigenous knowledge systems (IKS) in a similar fashion to other intellectual property, or to adopt a *sui generis* system. It was highlighted that at different times, various forms of knowledge would dominate and one form could thus not exclude or undermine others. IKS recognised the value of the various forms and regarded them as carrying equal weight. The Department of Science and Technology (the DST or the Department) felt that each of the methods and forms of knowledge production must be studied, quantified and respected.

Prof Seleti and her team from the Department briefed the Committee on the historical background to Indigenous Knowledge Systems (IKS) in South Africa. It noted that leadership in the modern context was determined by ability to create and harness knowledge, and a nation's ability to convert knowledge into innovations and wealth often determined its position among other nations. There had been a changing landscape of higher education and study, coupled with the African Renaissance and New Economic Partnership for Africa's Development (NEPAD), which gradually began to recognise the worth of IKS, outside of the leading academic institutions. The leadership of IKS was first championed by Dr Willy Serote during his chairing of a Parliamentary portfolio committee.

The purpose for raising the quest for IKS debates was outlined. There were now new moral and cognitive spaces to engage in constructive dialogue about the different knowledge systems. Knowledge was an intrinsic part of a democratic politics, and the role of society in raising issues around governance of knowledge was recognised, as well as the role of those who generated knowledge in local communities. Africa had for many years depended on external epistemologies, perpetuating intellectual dependence on outside countries. However, there was now a need to take cognisance of new ethics, to recognise the momentum for change and to recognise that new knowledge often carried inherent dangers to the continued stability of the earth. There was also the need for an inclusive knowledge network.

The policy framework of the DST around IKS was set out and explained. Indigenous Knowledge must be integrated into the education and qualifications framework, and into national research and development. The roles of the private sector, communities, traditional leaders and women were to be defined. It was accepted that there should be a legislative and administrative framework of governance, and the proposed institutional framework was therefore set out. An IKS Fund would be established, to support research initiatives and skills development of IK holders. There was a need to integrate IKS policy with other policies, while also confirming its protection and its role within the global intellectual property (IP) infrastructure. IKS human resources should be seen as a national asset. There should be links with the National Innovation Strategy (NIS) and promotion of public awareness and understanding of IKS. Research and information infrastructure should include oral knowledge, libraries, museums, databases, laboratories and IKS centres.

Some of the challenges facing the Interfacing of IKS in NSI were outlined. The IKS was an emergent field of study, of a multi-disciplinary and inter-disciplinary nature. There remained some disputes around the definitions and ethical considerations. There was thus far an inability to mainstream IKS within the educational system, despite the fact that it constituted a set of beliefs that there were many forms of knowledge that found their form in different types of scholarship.

The DST noted that in the past there had been hegemony of Western forms of knowledge production, with superficial and weak epistemic theories behind IKS. The idea of indigeneity was pitted against universalism, and it was noted that scholars pursuing the debate on the interface between science and IKS must explore whether something had to satisfy conditions or, or be proven to be absolutely right. At present, there was an inadequate legislative framework for IKS. It was recognised as a form of intellectual property, but there were severe limitations on whether the conventional intellectual property rights regime was sufficient to protect specific IKS rights. The legal instruments were currently fragmented, and there was insufficiently clear determination as to what constituted "knowledge" and who would decide upon it. At present, in South Africa, recognition in different areas was granted by the National Qualifications Framework (NQF), the National Research Foundation (NRF), Medicines Control Council (MCC) and the Intellectual Property Rights (IPR) regimes.

The problem was that there was now a focus on knowledge content and it became even more urgent to protect indigenous knowledge from being abused. There had been malnourishment or neglect of African Indigenous Knowledge Archives.

The policy mandate for the National Indigenous Knowledge Systems Office (NIKSO), launched by the DST, was outlined. It was established to nurture national IKS priorities through proactive engagement in the field of science and technology. It aimed to open up academic practices for greater scientific understanding, to promote and protect the intellectual property rights of communities, to recognise, affirm and develop IKS in such a way as to ensure equitable benefit sharing of IK resources to indigenous communities.

Some of the policy debates around IKS were then outlined. There was a debate, as previously mentioned, around the definition of indigenous knowledge and traditional cultural expressions (TCEs) or Expressions of Folklore (EoF). It was necessary to decide who should benefit from the protection, or hold the commercial rights to protectable IK, TCEs or EoF, and also to determine the objective that would be achieved by granting such protection, including economic and moral rights. Along with the rights, the obligations must be considered, including what forms of behaviour in relation to those rights would be regarded as unacceptable, and whether exceptions or limitations to the rights were necessary. It was also necessary to consider for how long protection would be afforded, the extent to which those rights might already be covered by the existing IPR, and the gaps that needed to be filled, and any sanctions that should apply to unacceptable behaviour.

Another point to be considered was whether newly recognised rights in IK or TCEs should be allowed to have retrospective effect.

The DST then briefly described the impact of IPR on access to and use of genetic resources and scientific research, as well as the role of customary laws and practices in the protection of genetic resources and indigenous knowledge, innovations and practices. Normally, in order to have protection, there were requirements around the disclosure of the country of origin, and the international legal obligations also required prior informed consent. It was questioned whether it would be feasible to institute an internationally recognised certificate of origin system, as evidence of prior informed consent. The role of oral evidence of prior art when examining, granting and maintaining IPR must also be considered.

The Western system of protection of IPR currently covered a large proportion of what was effectively indigenous knowledge, such as music or paintings that were protected under the Copyright Act, designs protected under the Design Act, trade marks under Trade Marks Act and performances under the Performer Protection Act. However the ownership of those works was designated to different owners. In the case of traditional works, the property belonged to the National Trust, whereas copyright under the current copyright protection assigned ownership to an individual and his or her estate. The same principle applied to all the other statutes.

The Department of Science and Technology (DST) started from the premise that intellectual property rights were just one set of tools in the protection of indigenous knowledge systems. Whilst it accepted that the mandate of the Department of Trade and Industry (dti) was to protect indigenous knowledge through a system of remuneration for this knowledge, it wished to stress that there were other systems of recording, documentation and protection of a unique and specific nature (*sui generis*) that formed part of protection. A comparison was shown (see attached presentation, slide 21) of the *sui generis* and private rights.

The DST believed that the IP system in South Africa comprised “bundles” of trademarks, patents, industrial Designs; and copyrights, and proposed that the IP system should include IK as one of the “bundles” rather than trying to fit it into the existing bundles. DST believed that there was a need for active coordination and regulatory measures, meaning that institutional collaboration was required, nationally, regionally and internationally. This should not be limited to donor funding, but certainly this could be used in the process. DST believed that provincial nodes should be established to serve as conduits for the implementation of IKS activities. If there could be public/private and business and community partnerships, community involvement in decision making and implementation would be secured. However, the DST was cautious about positioning NIKSO under any government department, feeling that it would then be subjected to too much red tape and lack of dedicated funding. It would be preferable for it to become an independent institute with dedicated funding.

The Department outlined the needs for research. The DST policy was driven by the fact that cultural and biological diversity continued to be damaged, misappropriated or misrepresented by unauthorised research. Many researchers failed to take account of customary values and practices, and did not accord the necessary respect. All research should be conducted according to the values of respect, equity, prior informed consent, material transfer agreements, access and benefit sharing, and collective ownership, in order to limit and prevent damage to community property. The DST urged that communities be included as equal research partners, that issues of collective versus individual ownership must be debated and agreed, and that benefit sharing and the defensive and positive protection of research results must also be agreed.

The DST outlined that it was promoting awareness and understanding of IKS through the IKS Expo and National Science Week and outlined the main objectives of the Expos, and the experience to date (see presentation), including the objective to ensure that communities in rural areas also appreciated and valued their IK as an innovative resource.

The current state of IKS research and development was outlined, including the new research priorities, establishment of the Centre of Excellence on African IKS, and the establishment of research chairs and research laboratories. The bioprospecting and product development platforms and their potential were also illustrated, as well as the flagship programmes.

The DST noted that there were still many issues to be debated. The first related to whether the commitment to the bio-economy strategy was matched by funding, infrastructure and human capital needs. There were questions as to whether the NSI was open to exploring new research methods and protocols through new epistemologies. There were also questions whether a National Institute of IKS needed to be established to implement the key strategic programmes, and whether the current NIKSO was well placed or should be shifted to Programme 2, which dealt with research and development.

DST submitted that the national recordal system (NRS) was an IKS policy that aimed to record, document, preserve, protect, and promote IK, including proactively securing knowledge holders rights. It was a conglomeration of projects from different institutions and government departments. The Database Protection Policy (DPP) aimed to protect unauthorised access to data from commercial exploitation, misappropriation and misrepresentation, and to govern the use of IK at institutes. There were some issue around ownership of the national database, and its governance and management, and it was necessary to identify the lead departments. There was a need to standardise the IK information storage and capture onto a common IT infrastructure platform. The role of language and translations must also be considered, as language could serve as a protection mechanism. It would be necessary to decide who could get access to the levels of the database.

Chapter 3.3 of the IKS Policy of the DST mandated the DST to implement the Accreditation and Certification Framework for IK holders and practitioners. The main aim of the policy was to reverse the injustices of the past and ensure proper protection. In the past there had been lack of recognition of existing IKS communities of practice, and a lack of understanding of the importance of IKS in sustainable community livelihood and development. The communities themselves lacked the institutional platforms and policies to leverage their practices, and there was a lack of frameworks for harmonisation and integration of the various communities’ practices, as well as no regulatory mechanisms to empower the IK holders and practitioners.

The presenters briefly outlined the claims to universal construction of knowledge, and the fact that local knowledge had been dismissed as qualitatively inferior, traditional, irrational and superstitious, and therefore unscientific. Western science was traditionally promoted as superior to other knowledge systems. Knowledge also had social constructs, relating to power. However, these stances ignored the fact that all knowledge was inherently local, and each system could be as valid as another. DST explained that Bruno Latour’s “asymmetrical extension of knowledge” suggested the interdependence of African IKS with a global network of local knowledge systems, and discussed the theory that the universal was an extension of a particular local practice. Some networks would be bigger and stronger than others. Members were finally directed to some sources behind these concepts.

DST submitted that it could bridge the chasm between IK production and other Western knowledge systems and illustrated the various sectors in which work was being done.

Discussion

Mr N Ngcobo (ANC) resumed the Chair.

Ms M Shinn (DA) questioned how the origin of indigenous knowledge (IK) could be established. She did not feel that the Bill addressed this issue thoroughly enough, nor decided how the correct party would be properly remunerated should the knowledge prove commercially profitable. She also asked what would happen to the intellectual property rights for IK once the period of ownership had lapsed, and how other parties could profit from that knowledge without involving the communities from whom the knowledge had originated.

Ms Shinn asked whether it was likely that a bachelor’s degree could be created in respect of IK systems.

Ms Hlupheka Tshabalala, Director: Knowledge Development, DST, responded that a Bachelor of Indigenous Knowledge Systems degree would be launched in the following year in all nine provinces.

Ms Shinn asked for further explanations on patenting of sorghum and how DST had determined who owned the intellectual property for that grain, and what impact this would have on the biotechnology development of sorghum for drought or disease resistance. She further asked how the DST would manage the development of an Indigenous crop into a “New Age” crop.

Mr Tom Suchamandan, Director: Advocacy and Policy Development, DST, stated that an organisation must enter into an access and beneficiary agreement with the various parties concerned. In this case all beneficiaries who conducted research or processing of sorghum for some or other bio prospecting reason would need to be protected. If a patent was granted without any such agreement this would limit or inhibit other parties concerned from using sorghum for bio prospecting.

Prof Seleti added that the seeds for sorghum were collected in the 1930s and put into a seed bank. In the early stages there would not have been a benefit sharing agreement. The objective initially was to protect the grain for generations to come, rather than for commercial gain. He highlighted that in the United States of America, there were attempts by the USA to patent the rights for sorghum, when the potential value of commercialisation of that crop was seen,

contrary to the rules set for the seed bank. The protection of indigenous plants was covered by the *sui generis* approach, but not in the dti Bill. The derivative rights that would be obtained from the research into indigenous plants were indicated in the Bill, so there would be maintenance of good governance around the protection of indigenous plants. Steps had been taken to ensure that the protection of IK did not stop the development of knowledge through research into indigenous plants.

Ms S Molao (COPE) enquired what possible solutions the DST proposed for the challenges that Prof Seleti outlined in the presentation.

Ms Molao asked about the time frames for the HIV/AIDS trial periods, and also asked if any of the participants had completed the running of these trials on time.

Ms Tshabalala responded that the main studies into HIV/AIDS were at the teaching hospitals of the University of the Western Cape and University of KwaZulu Natal, where Phase 2 of the clinical trials had been completed, with Phase 3 about to start. The time frame was not clear, as there had been some delays along the way, but the plan was to complete the study by next year. Another observational study was completed at the Medical Research Council, with positive results, which was also included in Phase 3.

Mr J Thibedi (ANC) raised the issue of co-ordination between the DST and various other government departments, such as Health, Trade and Industry and Agriculture, Forestry and Fisheries. He noted the statement by Prof Seleti that although the DST became involved in so far as its mandate allowed, the DST could not be directly involved in their functioning. He wondered if this would not raise a problem in the long term around loss of information relating to IK, and asked how that information would be managed so that appropriate accountability was shown and information was accurately managed.

The Chairperson raised the point that any matters relating to Intellectual Property for IKS could be located under the authority of the President to avoid any losses. Although reshuffling of departments over time could lead to the erosion or adjustment of previous mandates, the placing of this matter under the Presidency would mean that there was no loss, and that IKS would be afforded national and existing recognition.

Mr Suchamandan noted that the establishment of an interdepartmental committee was embedded in the policy. Each department having an interest in IKS was represented, and there was, for instance, integration of IKS in the curriculum for the Department of Education, whilst issues of biological diversity and genetic research were to be vested in the Department of Water and Environmental Affairs. All departments involved would meet on a quarterly basis with the DST to discuss projects that were coordinated by or spread across the various departments. He added that the DST had also embarked on a project with the South African Human Rights Commission (SAHRC), being part of the South African Social Attitude Survey, to assess the public's interest in the use of IKS in the markets, and this had now been rolled out into the nine provinces.

Mr Thibedi agreed with the institutionalisation of IK and that the oral knowledge of IK in Africa must be recorded and preserved. However, he asked how it would be possible to determine how many people agreed with and subscribed to IK practices. He pointed out that some African people living in urban areas may hold the view that IK was somewhat primitive, and Western knowledge more civilised. He added that some churches held and disseminated strong views or advocated particular thinking around IK. He enquired whether, if traditional medicines were recognised, the market forces would allow for traditional medicine to be prescribed widely, and whether medical aids were likely to pay for it.

Ms Tshabalala added that Dr Matlabisa was going to present some new protocols developed out of IK studies to the Medicines Control Council (MCC) on 11 November, and if these were accepted, they would open up new epistemology for traditional research and traditional medicine in South Africa.

Ms Tshabalala said that there was no official statistic on how many people in South Africa used traditional healers but it was estimated that 70% to 80% might use traditional medicine or consult traditional healers. She commented that there was a view that IK was primitive, so it was important to use more scientific language in regard to it, to assist in changing the mindsets of those who did not agree with or acknowledge IK.

Ms Dunjwa asked what input and comment was provided by the DST to the Bill, and noted that the DST had proposed the introduction of a *sui generis* system, asking whether another Bill had been drawn, whether the concepts complemented each other, and what were the fundamental differences in approach.

Mr Suchamandan responded in general on the issues of originality. Conventional Intellectual Property (IP) principles accorded ownership of patents to the inventor and copyright principles would grant ownership to the individual author or originator of the work. This would exclude community involvement. However, the *sui generis* approach looked at ownership collectively, and at communal level, and its protocols would be guided by international protocols and international treaties that defined what a particular community was, identifying also issues such as historical continuity and the effects of invasion into that community. A *sui generis* approach had to look at different criteria to define what indigenous knowledge comprised, and it would recognise that the knowledge must be inter-generational, must be embedded in a particular community, and have a communal aspect, in order to protect that IK to the community.

Mr Suchamandan said that the *sui generis* approach was not in contradiction to what was set out in the Bill. The DST viewed the protection of IK in a holistic way, which would complement the economic or commercial rights that were set out in the original draft by the Department of Trade and Industry (dti), as it would include moral rights, customary rights and other economic rights. The DST had given a 25-page response on the dti's version of the Bill, and this could be made available. The current wording did not satisfy the idiosyncrasies around questions of origin, since the original author or originator of IK would, by definition, not still be alive. The problem with copyright was the perpetuation of ownership by the originators. IK involved a need to shift the emphasis from the material form and individual authorship to one on community ownership of Intellectual Property.

Mr Suchamandan added that the *sui generis* approach afforded a better and larger protection of intellectual property, since it would protect the IK in perpetuity. In addition, this approach looked at a host of international treaties, and protocols, rather than limiting itself to patent law or a specific Convention. The *sui generis* approach would also take account of disclosure as well as origin of knowledge and would address issues around prior informed consent, access beneficiaries and mutually agreed terms. The Bill proposed by the dti provided only positive protection to IK, whereas the *sui generis* approach also offered defensive protection. It was also necessary to have trans-border protection, given that most IK transcended different borders, so that reciprocal international arrangements, rather than limiting single-country legislation, would allow for all issues to be considered uniformly.

Prof Seleti stated that there had been a shift from advocacy to institutionalisation. There was still much work to be done to build a system that recognised all the communities that incorporated IK practices. Prof Seleti stressed that IK should remain with the originators of that knowledge and must never be appropriated by the State. There was no room for compromise on this important principle. He further emphasised the importance of the duration of ownership. The current legislation contradicted the generation and transmission of IKS across the generations. It was important that there be a mindset towards building principles for ownership and coverage of IKS. Without this, the DST could not give its complete support to the Bill. He stated that it was now up to the dti to proceed with the necessary changes to the Bill so that it was brought in line with the *sui generis* approach, and work in conjunction with the DST to provide the necessary IKS protection.

The Chairperson asked that the DST should consider hosting another National Workshop before the end of the year on IK, as agreed upon during a recent Durban Expo.

The meeting was adjourned.

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