

Indigenous Knowledge Systems (IKS) activities & sui generis legislation: briefing by Department of Science and Technology

[Science and Technology](#) [1]

Meeting Report Information

Date of Meeting: 12 Jun 2012

Chairperson: Mr N Ngcobo (ANC)

Documents handed out:

 [Report on IKS Activities and Progress Report on Sui Generis Legislation Development](#) [2]

Audio recording of the meeting:

[PC Science: Briefing by Athletics on: Development Plans; Preparations for the 2012 Olympics](#) [3]

Summary:

The Department of Science and Technology presented a review of ongoing Indigenous Knowledge Systems in South Africa, focussing on Government Policy Alignment, development of Indigenous Knowledge and the need to encourage innovation. The possibility of introducing *sui generis* legislation to deal with IKS and protection of corollary intellectual property rights was also discussed. The presentation emphasised the importance of bridging the gap between indigenous knowledge and modern social needs such as food and medicine. Examples of medicine, nutraceuticals and cosmeceuticals were given to illustrate the success that DST had enjoyed thus far but also as reasons why increased funding could be very beneficial. Finally, the formulation of an interface by which knowledge holders were empowered to share and profit from their knowledge was explained, and it was shown that the nature of such knowledge was not fully compatible with current intellectual property legislation, revealing the need for new ground to be broken.

In discussion the Committee raised questions about regional IKS development within SADC, the reason behind the department's stagnant budget in this area and the precise nature of the proposed legislation. It was then shown that there had been a degree of cross-border cooperation on the project, owing to the nature and geographical occurrence of many of the natural products. Also, that the legislation was yet to be properly formulated by the Minister and that speculation in this area would not be constructive.

Minutes:

Indigenous Knowledge Systems (IKS) briefing by Department of Science and Technology (DST)

Dr Yonah Seleti, DST Chief Director: Indigenous Knowledge Systems, began by noting that Vision 2030 had produced very strong commitments to IKS and was seen as the long term objective within DST policy frameworks. The IKS activities speak to these target outcomes in a number of ways, targeting improvements in the skills of the workforce and rural developments amongst others. IKS was also seen as playing a critical role in the move towards a knowledge economy. Beginning with bio-prospecting and product development, a platform had been laid down over the last few years, but the primary issue was how to interface IKS into mainstream activities of innovation and move away from the current perception of it as "mumbo-jumbo." Dr. Seleti used three areas of IKS where success had been achieved: African Traditional Medicines, cosmeceuticals and nutraceuticals. The success in these areas was due to the contributions of a broad range of stakeholders and the relationships between them all had been legally formalised.

With regards to cosmeceuticals, Dr Seleti noted that the process by which traditional remedies were approved was lengthy and so only products that were time-efficient to introduce had been targeted. A Skin Tone Evening product had completed stages of human trial and was in the process of commercialisation. The Department of Trade and Industry (dti) was pleased with the Technology and Innovation Agency's interest in the product and it was very promising. An anti-wrinkle product was nearing completion of the human trial stage and should be available for commercialisation by the end of the year. Similarly, anti-balding products were still in the human testing phase.

In terms of traditional medicines, Dr Seleti gave three examples of illnesses that were being targeted using IKS. A remedy for Diabetes had currently moved from laboratory testing to animal testing, but not yet humans. Nevertheless it shows much promise and if preliminary results were accurate, it had the potential to be more effective than insulin. Research on how to grow the raw materials was occurring simultaneously so when the scientific procedure was ready, so too the agricultural procedure would be. Tuberculosis medicine was producing similar results but at pre-clinical trials and appears to be more effective even than isoniazidine. A team at Wits University was looking into an HIV treatment alternative to microbicide but there was still a long way for it to go. A second portfolio on HIV combines three indigenous plants and was being tested in laboratories. Proper agreements must still be made with the knowledge holders before full development could be pursued.

As far as nutraceuticals were concerned, the aim was essentially to make South African food global whilst maintaining domestic employment objectives and working towards an economical outcome. This requires careful commercialisation and due consideration for traditional methods and functions of food goods.

Dr Seleti said that dti was at the stage where clinical trials must be conducted but these were very expensive. The costs and benefits must naturally be weighed up when budgeting and in doing so, the potential this area of indigenous development had, should not be ignored. The examples mentioned, as well as many others, had the potential for very high economic returns across a number of spheres.

In terms of budget, National Research Foundation (NRF) funded research had been aided by ring-fenced budgets. Dr Seleti gave an example of a project that had benefitted from this – indigenous plant based tea, that had the potential for positive cardiovascular and immunology effects and weight loss. Practical results were being effected by the ring-fenced amounts made available, and it stands to reason that increasing the funds could increase the positive results.

The R10 million that had been made available for the last few years had been fruitful but the amount had not increased at all, even to account for inflation. Nevertheless, it had to date birthed 19 projects, 52 postgraduate students and 2 IKS research chairs at the University of KZN and the Walter Sisulu University with further Centres of Excellence to be finalised around the country by February 2013. An additional question was how to consider furthering existing grassroots activities. The Moringa Project had looked at skills improvement, employment, health issues and plant cultivation in Tooseng, Atteridgeville and KwaDukuza. The main point was that the concept of Bio-economy was no longer a standalone initiative and tied in with many aspects of the greater national economy.

If the knowledge of indigenous practices were not stored, utilised and credited there would be a great loss to the nation. The National Recordal System (NRS) had been in place since 2008 and it aimed to be the leading Indigenous Knowledge Systems treasure hub for communal socio-economic development. It aimed to preserve protect and promote IK and development of indigenous products for communal socio-development. The NRS objectives were to empower communities and stakeholders, build appropriate networks and achieve national objectives. A comprehensive system had been established to verify, scientifically, information from communities regarding indigenous knowledge and those communities could receive feedback in a number of mediums regarding their knowledge and how it was being used so that they were adequately empowered.

Objectives for the accreditation and certification of IK holders and practitioners focused on recognition of members of communities. These knowledge holders did not gain their knowledge through education but through experience so a framework was being set up to establish norms and standards of knowledge that could be applied to them in their own right. The way forward was to take this work through the Minister and Senior Executives and only then public engagement. Until now there had not been research ethics that dealt with Indigenous Knowledge development but these had been created by dti and were undergoing assessment. A database policy had also been developed to protect knowledge holders, specifically, as it was imperative that they not be disempowered.

SA's current legislation did not adequately protect indigenous knowledge. Although there was consensus that it should be done, it was unclear on how it should be done. In the existing Intellectual Property rights system, the focus of the dti was on statutes for copyrights, trade marks and designs, but indigenous knowledge was not purely commercial in nature nor was it even tangible. New, more appropriate legislation should be passed, not necessarily to compete with existing Acts but to complement them. Developing such a system required consensus from all Intellectual Property stakeholders and must take into account both the moral and economic rights of the knowledge holders. Indigenous Knowledge should be considered as a standalone area of intellectual property and this would speak to its idiosyncrasies that go beyond the conventional system of knowledge protection. A task group had been formed to draft legislation the broad objectives of which were protection, promotion, development and management of IKS in the form of *sui generis* legislation. This was being done internally by DST in conjunction with its *National Intellectual Property Management Office* (NIPMO), pending submission to the Minister for consultation with government departments. Dr Seleti concluded by reiterating that despite the ongoing success of the department, there remained financial constraints.

Discussion

Mr P Smith (IFP) began by noting the importance of developing a comprehensive IKS and suggested that the initiative be presented to Parliament in its entirety. He asked whether products such as hemp and naturally harvested sugar could not also be developed commercially and if dti had already looked into that possibility. He requested more information on the consortium's business model for commercialisation of products and asked whether the products even needed to be registered at all – so as to cut

down on bureaucracy. Mr Smith asked why the R10 million budget had not changed in 11 years and especially whether or not this was due to political reticence. He asked whether or not a Centre of Excellence would be established at Walter Sisulu University. He advised that if *sui generis* legislation was passed, it should not just complement existing legislation but in fact replace it. Finally the inclusion of SADC neighbours in the IKS process was questioned, given that many of the indigenous ingredients were not exclusive to South Africa.

Ms Z Ndlazi (ANC) asked the presenters how people in different areas where knowledge had not yet been investigated would be able to approach the dti with their knowledge and be incorporated into the process.

The Chairperson added that there was a theory that IKS should not just be pipelined at Higher Education but introduced at Basic Education level and enquired as to any progress in this.

Dr Thomas Auf der Heyde, DST Deputy Director-General: International Cooperation and Resources, began his response by emphasising that the discussion around IKS was ongoing and conceptual, not just internally at dti but at an international level, and the formulation of legislation was therefore extremely complex. These discussions would eventually provide a legal framework but it was as yet too early to pre-empt the outcome of that or the parliamentary process. Its role in relation to current legislature should not be speculated upon.

Dr Seleti observed that the examples of developmental progress given in the presentation were not a closed list and that many other areas were yielding positive results. The Agricultural Research Council had been doing a lot of work, especially in the area of traditional foods, so not all of the current programmes were new. In terms of the three areas a value chain approach had been adopted. Projects such as the tea project that enjoy success were elevated and moved onto other departments so as to progress. It was important to know the boundaries of each department's mandate. There was not a pre-determined model for indigenous knowledge development, but a comprehensive model was being sought. The department was as mobilised as it could be but a budget expansion was clearly required to further clinical trials and all areas of IKS.

The Chairperson supported a budget expansion but noted that more detailed information regarding clinical trials would have to be included in the request to Parliament.

Dr Auf der Heyde said that the development of drugs was usually done through extensive partnerships with public or, more commonly, private sector bodies. It was premature to be providing details of how this particular development would proceed, but guidance would be necessary from the Minister regarding the nature of assistance she would seek from Parliament.

Dr Seleti said that with regards to the consortium, it was crucial to identify the most efficient way of mobilising private sector, academia and knowledge holders. To avoid competition and duplication of work, there must be identifying of competencies and collaboration. This consortium would not necessarily be the same body that would take each project to commercialisation. To date there had been four regional workshops biannually within the SADC region, focussed on policy development. Although recently these were looking at specific projects such as the record system that had been developed by SA but could be shared with the continent. Many issues being discussed regarding legislation were now being discussed throughout the region, especially as many indigenous plants were not exclusive to SA. Ideally the IKS leadership emerging in SA would set the standard for other countries in the region. There were bilateral and multilateral protocols that would guide procedure.

In terms of empowering knowledge holders to approach the dti themselves, Dr Seleti acknowledged that this had been a challenge, but establishing IKS documentation centres in each province was one method. People could approach the centre and researchers would be sent out into the field to inform knowledge holders. So far KZN, Limpopo, North West, Gauteng and Free State had been covered. The process of accrediting knowledge holders could establish communities of practice and this would improve communication between stakeholders. There had been four IKS expos, and knowledge holders had come in great numbers to them. Information was circulated and much awareness had been raised. It was estimated that 1.5 million people were reached by these activities.

Another of the challenges surrounding development of indigenous medicinal remedies was human capital. Often researchers moved on to other positions and this could disrupt research. With the new information consortium, there would be more continuity between stakeholders. The Walter Sisulu chair that had been created was not a Centre of Excellence, but was already pushing for a greater role in the IKS process.

Mr Smith raised concerns over the role of the consortium in commercialising products, specifically whether it would apply equally to them all or if smaller bodies could deal with each product on a local as well as global level.

Dr Seleti replied that the model for commercialisation would be creative and different for each product. There were a number of permutations based on the knowledge holders of the product and its commercial potential.

The Chairperson asked whether, in terms of SADC collaboration, individual experts from other countries were being approached or only public bodies.

Ms M Dunjwa (ANC) asked how people who had experienced positive results from indigenous remedies would be able to get in

touch with the DST to contribute.

Dr Auf der Heyde emphasised the context of the strategy outlined in the presentation, that it was still in its early phase and that potential for recognition of local products was still very much being considered. This work aimed to heighten the framework that was in place as a precursor to such development.

Dr Seleti pointed out that DST supported the Southern African Biomedical network. South Africa had been tasked with generating knowledge and human capital and did not seek to step on the toes of mandates given to other countries. Individuals were brought in to participate and often took their work back to neighbouring countries for it to be continued. The implications of each medicinal remedy could go beyond its primary purposes, including symptoms such as weight loss. This was why many private sector bodies were excited by research into indigenous knowledge. The Documentation Centres were the main ways for individuals to reach the DST but there was a website for those with internet access. The issue of introduction of IKS into basic education had been raised in an inter-departmental Committee, but was not yet concluded.

The Chairperson thanked the presenters for their efforts and encouraged greater vigilance in the pursuit of substantial progress.

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