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Cross-national convergence of biosafety systems in Sub-Saharan Africa

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This policy brief presents some key observations from an analysis of the processes towards emergence of similar cross-national biosafety systems in Sub-Saharan Africa. The promises and challenges of modern biotechnology are as widely acknowledged as they are contested, raising the stakes for efforts to develop systems for governing the technology.

The contestations in the regulatory processes at national and international levels are also well documented. They are epitomized by the protracted negotiations for the Cartagena Protocol on Biosafety which pitted the biodiversity conservation-inspired interests of developing countries against the 'bio-economy' interests of developed countries. Adoption and conclusion of the protocol in the early 2000s did not mark an end to the biosafety discussions; it simply paved the way for other issues to come to the fore, notably the desire by some countries to develop similar regulatory systems for reasons including buttressing weaker national systems, facilitating cross national learning, reducing regulatory ambiguity and cutting regulatory costs for countries.

A study conducted between 2006 - 2008 and 2009 - 2011 looked at the processes that lead to the emergence of 'converged' or 'harmonized' systems for managing modern biotechnology processes and products in Sub-Saharan Africa. The study particularly examined the roles of three supranational organisations (SNOs): the African Union (AU), the New Partnership for Africa's Development (NEPAD) and the Southern African Development Community (SADC). Together with other regional and international bodies, these SNOs have initiated processes to assist the 15-country SADC region towards cross-national similarity or convergence of biosafety systems.

The case study research was guided by the three factor conceptualisation of Per Olof Busch and Helge Jorgens (2005) , which proposes cooperative harmonisation of domestic practices, interdependent but uncoordinated diffusion and coercive imposition of policy practices as three distinct international mechanisms causing policy change and policy convergence.

EMERGING ISSUES

Complexity of cross-national regulation agenda

This study confirmed the complexity of the cross-national regulation agenda and revealed further issues that lie behind the complexities of biotechnology regulation. Out of the study emerged a set of diverse and fluctuating understandings, fears and motivations for the convergence agenda - underpinned by sub-national, national, regional and extra-regional forces. These forces shape the reality of what the SNOs and the countries have to deal with in the envisaged multi-country governance structure, laying bare the realities and fallacies that face the convergence aspirations which have been on the regulatory agenda since the late 1990s.

This study also identified the fact that complexity is underpinned by many forces that are not necessarily obvious if not unearthed by careful

and multi-method study. For example, in the backdrop of a dynamic mix of technology-inherent and technology-transcending challenges facing the policy agenda, it becomes clear that a purely techno-centric approach to the convergence is less likely to be successful. This calls for organisations and other actors to synergise their different capacities and strengths if successful regulatory cooperation is to be achieved.

Ownership of policy processes is key

With different motivations and levels of caution, countries of the SADC region appear to be in agreement on the need for a transnational governance framework for biosafety. While this agreement may be elusive, it is clear that stakeholders are keen on owning the processes that lead their individual countries and the region towards a transnational framework. This resonates with what other scholars have noted on harmonization, trade and the environment: 'For the most part, the purpose of these efforts is not so much to achieve identical regulations or standards, but to converge international methods for developing and administering standards' . Countries face different challenges in their participation in the standard-setting processes, and this needs to be taken on board in designing and implementing programmes.

Biosafety – an issue in multiple sectors

A further key challenge that complicated cross-national cooperation is the fact that biotechnology policy or biosafety policy is a measure in many policy fields, such as industry, science and technology, education, environment, agriculture and trade. In addition, there are many other policy measures which are closely related to and/or overlap with biosafety, for example food safety, sanitary and phytosanitary measures and environmental safety. Assessing similarity of biosafety systems and opportunities for cooperation at the cross-jurisdictional level has to take all of this into consideration. Depending on the location of policy actors in each setting, different levels of convergence and opportunities for cooperation are likely to be encountered. Continuous changes at the bureaucratic and institutional levels in most countries result in government departments emerging or disappearing frequently, presenting further conceptual and operational challenges to the policy processes.

Unrelenting contexts and fluid aspirations

An unrelenting national and regional socio-economic and political context hampers regional aspirations. As much as countries see the benefits of cross-country cooperation, from their own realities and from experiences elsewhere, e.g. in the OECD and the EU countries, the historical and bilateral realities of the countries in the region limit the autonomy that they have in the cross-national policy space. For example, most of the countries are too committed in other arrangements which pre-date the convergence agenda, and which are in place to prop up the countries' waning economic fortunes. Extra-regional powers, in the form of individual countries or groups of countries, companies, private foundations and others may thus inadvertently have a divisive effect on the region through their resource partnerships with some countries. Meanwhile, in some countries the limited visualisation of immediate economic benefits from policy convergence dampens its prospects as a long term socio-economic development target.

There is a strong and persistent perception across the entire spectrum of stakeholders who participated in the study that regional policy aspirations and processes are easily reversible. This detracts from the commitment and motivation of policy actors towards regional objectives as they have to continually embark on new initiatives which are frequently abandoned mid-stream. A prominent example is the SADC Advisory Committee on Biotechnology and Biosafety which has not had a consistent presence in the region. While these changes are seen to reflect the continuous effort by the regional governments to position themselves adequately to deal with the policy challenges in the backdrop of a congested and contentious national and regional policy space, the fact remains that these fluctuations do not augur well with long-term visions.

Implementation is the real problem

Convergence of systems will not necessarily address the implementation challenges faced by countries and the region. For example, it is difficult for partners to access facilities set up in other countries. Thus, in the event of countries

Promises and challenges of biotech

Biotechnology - defined broadly as the use of whole or parts of living organisms in the production of goods and services – holds great promise for the modern world. For example, through the transfer of advantageous genes, increased agricultural productivity can be achieved due to improved pest resistance and tolerance of drought and poor soil nutritional status.

There are also many recorded benefits of biotechnology in human and animal medicine, environmental management and industrial processes. On the other hand, opponents refer to the social dis-advantages and environmental risks of biotechnology, as well as the danger that the sector could be dominated by a few powerful corporate giants.

Beyond the pro and anti-biotech debates, technology has also become an arena for contrasting views on modernity. Some say biotechnological advances are progressive, necessary and emancipatory; others feel these advances are masking new forms of domination and oppression.

having to share resources as part of implementing the regional system, such issues will have to be taken into consideration. Countries are at different levels of technological and regulatory development and have varying impetus to address science and technology issues. This leads to insecurity among some countries emanating from fears of being dominated and marginalized by stronger ones. It is clear that if a regional system emerges, it will be effective to the extent that local specificities are taken into account in the development process.

It also appears that while technology has a modernising effect on the countries and the regulations, it does not seem to carry enough weight to effectively overcome the broader contextual barriers in the region. There is a feeling among policy actors that until the countries are in a position to make their own decisions on technology, then the threat of the external forces will remain strong and decisive regarding where individual countries or the region can go. Policy actors also feel the effectiveness of the regional system for biosafety will always be subordinated to other issues, such as trade, politics and food security, and there might be need to think about and explore a more holistic convergence agenda in these wider policy fields.

CONCLUSIONS

On the whole, continuous and closer analysis of the convergence agenda, from both practical and theoretical perspectives, is required to confirm and explain some of the issues highlighted by this study.

A possible approach will be to look at clusters of countries in Sub-Saharan Africa, e.g. based on the level of development of regulatory systems or use of the technology or trading partners. Parallels for countries within the same cluster can be drawn based on predictions from the 'most-similar-systems' approach. This will also help to bring out the national level factors which facilitate or hinder cross-national policy convergence, including whether or not biosafety is a big enough imperative to break documented sectoral tensions between science, technology and innovation, environment, trade and others. Further use of the typology proposed by Busch and Jorgens as an overarching framework will still be invaluable as this framework largely captures the dominant mechanisms within the biosafety arena in Africa.

References and further reading:

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