

HIGH LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT

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STATEMENT

THE FUTURE WE WANT

The Rio +20 agreement, arising from the proposal of a pre-Rio High Level Political Panel co-chaired by President Zuma, made strong recommendations on the role of Science in the future we want, including recommending that the UN Secretary General set up a Scientific Advisory Board (SAB). RIO +20 also agreed to craft Sustainable Development Goals (SDGs) as a follow up to, and with lessons learnt from, the MDGs. One of those lessons was that science needs must play a more pivotal role in achieving Sustainable Development .

THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

The SDGs and their implementation will require science to make a step change. Science will have to look at the way it works, it communicates, it engages with end-users, and its relevance to transforming the lives of people and overcoming poverty and crippling inequality. In this way Science must be Transformative, Universal and be much better co-ordinated and integrative.

SCIENCE NEEDS A STEP CHANGE TO SUPPORT THE SDGs ACHIEVEMENT

For the value chain of **Science** into **Policy** into **Society** to work efficiently the following needs to be examined and emphasised, in my view:

1. Science needs to be more accessible and approachable

The perception of science is that it is exclusive and elite. So we need to reflect on:

- How we do science
- Who we include in the activities of science
- How we communicate it / message it
- Who we include in the question, design and outcome
- How we harness knowledge and information
- How relevant is our scientific endeavour for human actions and wellbeing

All the above needs to be reviewed, while maintaining the ideals of science: that of being evidence and knowledge-based, unbiased, verifiable, and frank and honest.

It is very pleasing therefore that the new effort called **Future Earth** is endeavouring to do just this. *Future Earth* is the new global platform for research that aims to co-design and co-produce research from a range of scientists including Economists, Sociologists, Environmentalists, Biologists, Geographers, etc, etc. This is the manifestation of the integrated agenda. In addition *Future Earth* is committed to be inclusive of all scientists across the globe including those in scientific institutions of the South.

2. Better sharing of empowering information and data globally for effective research and efficient decision making

Over the centuries much investment has been made in scientific research. Overwhelmingly this has been directly or indirectly from taxpayer's money. Scientific research has had huge returns of investment for humankind in health, agriculture, engineering, understanding human history, etc etc. There is no doubt that scientific endeavour has driven innovation and human advancement. However scientists are notorious for not sharing information and data. This can result in wasteful duplication and destructive competitiveness for a shrinking pot of global funds for research. In addition increased reliance on the privatisation of R+D means more and more vital information for human wellbeing is out of the public domain.

Science must also endeavour to speak in a language that is understandable to citizens, and cultivate citizen scientists. In South Africa much of our threatened plant species data, as well as our globally renowned Bird data is driven by citizen science.

For science to stay relevant, to be respected and be regarded as vital for the future, science needs a form of democratisation. Science needs to share accessible, useable, fit for purpose information — to include knowledge gleaned from Best Practice and from projects and pilots run all over the globe. This is very possible in this digital era where new channels and technologies driven by IT innovations make what was impossible a decade ago, very possible today and tomorrow.

3. Strengthening global human capital development and science institutions

Developing country institutions such as those scientific institutions on the African continent are at the coal-face with issues in SDGs. African, and other scientists and science institutions have vast experience on these matters but research budgets are often the first to be cut, competing for other demands on the fiscus such as education, health, housing, etc.

Scientists from the south bring unique hands-on experience and expertise to challenges of sustainable development but are often hampered by lack of financial resources and lack of access to global information. Science institutions of the south have over the decades developed pragmatic and invaluable strategies to survive resource constraint, a constraint only now hitting the shores of the rest of the world after the 2008 economic meltdown.

Science Institutions constantly have the dilemma between pure science and applied science, the former seen to be a luxury we cannot afford. However we in developing countries found we must show relevance to national growth and development goals - even in the case of pure or foundational science .For example, in a mega biodiversity country like South Africa, the foundational research and primary data collected is harnessed to make the economic and social case for the link between the asset that is our natural capital and our developmental goals, resulting in higher fiscal support for science from our Government.

Science Institutions are made up of people but there is a global lack of scientist and worrying signs of science institutional failure. So-called poaching and the brain drain are seen in a negative light. We need to see human capital development for science and science institutional strengthening for SDG implementation as a global effort, growing skilled assets for the planet. We should use the advent of the SDGs to develop a global human capital development (HCD) strategy for science for sustainable development.

CONCLUSION

Each SDG should have a perspective of the science (and science approaches) needed for clearer understanding of the challenges and so support successful implementation. Also needed is a global HCD perspective, analysing and identifying skills, expertise and institutional roles, capabilities and capacities for successful implementation of the global aspirations set out in the new Sustainable Development Goals.

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