Innovation, Sustainability, Development: A New Manifesto

Report on Zimbabwe Roundtable 5th March 2010
Cresta lodge, Masasa. Harare, Zimbabwe. 09.00 – 13.00hrs

The Zimbabwe Roundtable was attended by stakeholders from research institutions, academia, the Zimbabwe Academy of Sciences, civil society, Non Governmental Organisations, technology implementers and policy makers. The delegate list is appended as appendix B

Zimbabwe's minister of Science and Technology Development Professor Heneri Dzinotyiweyi gave an opening address, which was widely covered in the local TV media. The text of his address is submitted as appendix A

Visioning

The Zimbabwe Roundtable began with a plenary visioning session facilitated by Mr. Absolom Masendeke of Practical Action. The purpose of this session was to align the delegates' perceptions on how within their thematic areas (Housing, Water and Sanitation, Agriculture and Science and Technology), they saw the future in terms of innovation for sustainability and development. The following were the agreed views of the delegates:

- Recognition of diversity and inclusion of stakeholders in the development chain.

- Collaboration of all centres of excellence, research institutions, policy institutions and not working in silos on issues of common good and development.

- Empowerment of the communities and their inclusion in decision making on technologies that affect their lives.

- Re-designed approaches and technologies due to changing environments

- Sustainable systems measured by their continued existence, use and replication of systems and technologies.

- Primary manufacture of raw materials as value addition and creation of markets

- Shared vision and common understanding

1. Local and global sustainability and development objectives and associated favoured "directions" for innovation / development (Note: this does not need to be an exhaustive list, rather you might choose to focus on just a few)

- Recognition of diversity and inclusion of stakeholders in the development chain.
  - Empowerment of the communities and their inclusion in decision making on technologies that affect their lives.
- Develop a clear institutional framework for collaboration by all centres of excellence, research institutions, and policy institutions in pursuit of commonly agreed goals.
- Building adaptive capacity through re-designed approaches and technologies due to changing environments, e.g. climate change

- Creating an appropriate legal and regulatory environment conducive to innovation
- Sustainable systems and technologies measured by their continued existence, competitiveness, use, potential for value addition, replication and access to markets.
- Maximising investment in human capital development and utilisation for sustainable innovation and development

2. Forms of innovation or initiatives that are relevant to meeting these particular sustainability objectives

Recognition of diversity and inclusion of stakeholders in the development chain.	- Integrating visioning and multi-stakeholder engagement - Empowerment of the communities and their inclusion in decision making on technologies that affect their lives
Develop a clear institutional framework for collaboration by all centres of excellence, research institutions, and policy institutions in pursuit of commonly agreed goals	- Collaborative research (in-country and cross-border) - Collaborative and integrated planning involving all stakeholder as a model to increase technology and services availability - Innovative and new practices and learning from others (both internal and external) - Non-systematic innovation mapping strategy - Exploration of innovative ways of working - Mindset change
Building adaptive capacity through re-designed approaches and technologies due to changing environments, e.g. climate change	▪ Adaptation to hi-tech products, e.g., GMOs ▪ Adoption and institutionalization of best practice, create centres of excellence and inculcate research and design philosophy ▪ Knowledge management ▪ Fusion of indigenous knowledge to scientific know-how ▪ Community capacity building in response to new innovation, e.g. cooperative initiatives

Creating an appropriate legal and regulatory environment conducive to innovation	▪ Policy harmonization to reflect science and technology thrusts e.g. GMOs and general science and technology innovation. ▪ harmonisation of local by-laws and regulatory frameworks in response to local demands and needs ▪ provision of subsidies by way of tax breaks for private sector organisations involved in research and development ▪ Constant review of import duties and related charges to make technologies affordable ▪ Enact polices that recognise and reward new technological innovations.
Sustainable systems and technologies measured by their continued existence, competitiveness, use, potential for value addition, replication and access to markets.	- Capacitate key economic sectors, such as manufacturing, mining, agriculture - Industry recovery incentives to accelerate growth and competitiveness - Innovation in manufacture of local materials and components to make technologies cost-effective
Maximising investment in human capital development and utilisation for sustainable innovation and development	- Systematic investment in curriculum development from primary to tertiary level in science and technology as opposed to current scenarios where these are emphasised at higher levels - Improve standards and alignment of education systems to strengthen platform for innovation, learning and development - Systematic audit of human skills for effective utilisation of local skills and expertise.

3. How these do or do not reflect the emerging 3D agenda and other aspects of the New Manifesto draft

- o **Directionality:** there tends variation by sector, in housing key incremental housing model seem to have been adopted by all stakeholders, from community to national level

- o In agriculture, there is no commonly agreed vision, which could be due to multiplicity of stakeholders in the sector, as well as declining capacity for coordination at national level

- o In science and technology including water, the is a national government- desired direction that is emerging, but that is not fully endorsed by relevant stakeholders

- o **Distribution**: although there is an intention for innovation to have a wider reach, the dialogue is noted a number of challenges with regard to gender equity and participation, in terms of inter-generational knowledge transfer with the youth not getting or with youths having the least access to information and knowledge on innovation and development. The issue of infrastructure and financial constraints negatively affected the impact of innovation processes especially for the rural poor

- o **Diversity:** there is desirability to meet diversity by all stakeholders but this has been difficult in practice due to limited investment in science and technology by all concerned stakeholders and poor mechanisms for stimulating local knowledge and experience in science and technology research. The component of Public Private Partnerships (PPPs) is emerging in other sectors, such as housing but a lot still needs to be done in other sectors. The lack of trust among stakeholders is a major threat of PPPs, which are necessary for diversity.

Overall, the 3D framework was seen as useful in conceptualizing and operationalising sustainable innovation and development in a context such as Zimbabwe and in coming up with a new manifesto.

4. Principal constraints to these and/or related sustainable innovations

- Top-down market driven approaches

- Unequal partnerships among stakeholders

- It's a technocrats' world

- Inappropriate technology

- Resource limitations

- Institutional reforms

- Infrastructure inadequacy

- Gender imbalances

- Technologies not incremental in development and not responsive to the development context

- Lack of driver at national level to represent multi-stakeholder science and technology needs and demands

- Non-systematic innovation mapping strategy

- Policy and regulatory frameworks, where they exist are too rigid and fragmented otherwise not harmonised and not conducive to innovation and development

5. Alternative policies, institutions or governance arrangements that could promote innovation in more sustainable directions or better support existing practices/knowledge that help meet sustainability objectives

- Financial to stimulate demand for new technologies

- Subsidies by way of tax breaks and review of import charges to make technologies affordable

- Innovation in materials and components to make technologies cost-effective

- Innovative and new practices and learning from others (both internal and external)

- Capacitate communities on self-development cooperative initiatives

- Collaborative and integrated planning involving all stakeholder as a model to increase technology and services availability

- Harmonised by-laws and regulatory frameworks that are supportive of innovation for sustainability and development

- Adopt best practice, create centres of excellence and inculcate research and design philosophy

6. Evidence (if any) for the effectiveness of these alternatives and remaining research needs for better understanding their effectiveness

- Innovation promotion and marketing at scale – How do we mainstream some technologies that work at different institutional interfaces?

- How do we mobilise resources and build capacity for sustainable innovation and development?

- How can we influence policy makers to create enabling conditions and create an environment conducive for innovations to take off?

Way forward

The Zimbabwe Roundtable delegates implored on the organisers that;

- Such events needed to be turned into processes that generate sufficient momentum to translate the Manifesto's proposals into national policies and programmes and develop research or project proposals for policy reviews.

- Project ownership and close involvement of the Ministry of Science and Technology Development would go a long way to ensure harmonisation of national science and technology policies and creation of an environment conducive to research, innovation and development.

Appendix A

Speech by Professor Heneri Dzinotyiweyi, Hon. Minister Science & Technology Development, at the Roundtable Discussion on Innovation, Sustainability and Development: A New Manifesto.
Friday 5 March 2010

It gives me great pleasure to be addressing this **Innovation, Sustainability, and Development:** A New Manifesto Roundtable. Firstly I would like to thank Practical Action for organizing this Roundtable Discussion. Although it is for the purpose of feeding our ideas into a global initiative with Sussex University, it also provides, at the local level, an opportunity for our scientists to interact on the themes under discussion today.

The approach taken by Practical Action Southern Africa, to involve partners in rethinking policies around science, technology and development is providing a platform for the development of cutting edge ideas and innovative policy recommendations.

This Roundtable comes against the background of a nation which is going through unprecedented socio-economic challenges demanding a sophisticated combination of science, technology and research based responses.

With other roundtables having been initiated on other continents, I acknowledge with pleasure, that this platform is a first and a breakthrough in Zimbabwe and Southern Africa, as we try to leverage technology to fight poverty. The areas of water and sanitation, agriculture, housing and Science & Technology under discussion here today, have the potential to greatly contribute to the country's economic development. I must hasten to add that Government is committed to these three sectors as we strive to provide affordable decent accommodation, improve access to safe water for both urban and rural communities and improve agricultural production for both communal and commercial farmers.

While my Ministry notes that there are many institutions involved in technology development in Zimbabwe, there is need for a multi-stakeholder approach to advance national interests. The public and private sectors, civil society and government all have a role to play.

The launch of the Science and Technology Policy framework in 2002, has facilitated a conducive policy environment linking science and technology innovation to build a more sustainable, equitable and resilient future for people in poverty. It is also crucial to note that at this point more platforms such as this roundtable must be accelerated and explore diverse ways of linking science and innovation to development to address the challenges of poverty reduction and social justice.

It is my sincere hope that the deliberations conducted today will contribute significantly towards a new technology manifesto, which looks at innovation as a tool to fight poverty as we seek more sustainable initiatives to improve the lives of Zimbabweans. Outputs from today's deliberations, while contributing towards a new Science and Technology Manifesto, can also provide a starting point towards ensuring food security, access to potable clean water and adequate housing.

More effort and energy needs to be channelled towards initiatives such as this Roundtable, to build a vibrant constituency for science, technology and innovation.

I therefore throw the challenge to the participants here present today to effectively deliberate on strategies in the three thematic areas and suggest practical ways of applying technology to fight poverty and at the same time strengthen the Zimbabwean economy.

Again we wish to thank Practical Action for your initiative. We wish to acknowledge your interest to be more involved with the work of my Ministry. As you know, we have accepted to have a Memorandum of Understand between yourself and the Ministry. This will establish a more formal working relationship between us.

It is therefore my singular honour and privilege to declare the **Innovation, Sustainability, and Development:** A New Manifesto Roundtable officially open. I THANK YOU

Appendix B

Innovation, Sustainability, Development: A NEW MANIFESTO
Zimbabwe Roundtable, Cresta Lodge, Harare. 5 March 2010

List of Attendees

	Title	Surname	First Name	Organisation
1	Mr	Chiduza	Samuel	NSSA
2	Mr	Chaikosa	Sam	Civil Forum on Housing
3	Mr	Masendeke	Absolom	Practical Action
4	Mr	Kagu	Ticharwa	Zimbabwe National Association of Housing Cooperatives (ZINACCO)
5	Prof	Gudyanga	Francis	MSTD
6	Dr	Ushewekunze Obatolu	Unesu	Veterinary services Department
7	Mrs	Madzinga	Scholastica	Min of Science and Technology Development
8	Ms	Rungano Karimanzira	Rungano	Min of Science and Technology Development
9	Prof	Chetsanga	Chris	Zimbabwe Academy of Sciences
10	Miss	Marera	Tatenda	MSTD
11	Prof	Kabanda	Gabriel	Zimbabwe Open University
12	Mr	Mugweni	Osmond	Afuca Zoo Network
13	Mr	Mutondo	Grand	Afuka Zoo Network
14	Mr	Mafa	Abisai	National Biotechnology Authority
15	Mr	Gumbo	Douglas	Practical Action
16	Mr	Mupunga	Ernest	Practical Action
17	Dr	Madzingaidzo	Leonard	SIRDC
18	Mr	Chanakira	Terrence	Practical Action
19	Mr	Muneri	Medalido	Practical Action
20	Mr	Thembinkosi	Nyathi	Practical Action
21	Prof	Nhapi	Innocent	University of Zimbabwe
22	Mr	Mwenda	John	National Institute Of Health Research
23	Mr	Makoni	Fungai. S	Institute of Water and Sanitation Development
24	Ms	Chioreso	Rennie. M	Waternet
25	Prof	Dzinotyiweyi	H	Minister, Science & Tech Dev. Zim
26	Mr	Gudza	Lawrence	Practical Action