The Foreign Policy Centre

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SUMMARY NOTE - ROUNDTABLE DISCUSSION IV

INVESTING IN WOMEN'S ECONOMIC RESILIENCE AND SOCIAL WELLBEING: RETHINKING THE ROLE OF PRIVATE SECTOR DEVELOPMENT IN AFRICA

This discussion event took place on Wednesday 13 April 2016.

This fourth event in the series aimed to focus on **bridging the gap between science, technology and innovation (STI) for development transformation across Africa.** The discussion explored how science and technology can help drive more open and inclusive innovation and how best women and girls across Africa might be empowered to meaningfully contribute to shaping sustainable development solutions which address the challenges they face across agriculture and the rural economy.

SUMMARY

- Recognition of the significant contributions diverse women and girls make to STI and increasing their representation in its development
- National and regional policy commitments and aspirations require much more focused implementation, particularly to address the contexts and specific realities faced by women and girls
- The impact of STI can only be enhanced if the inequalities women face vis-à-vis cultural and social norms, as well as access to resources such as affordable credit are addressed
- Understanding that innovation not only drives productivity but has the potential to support wider transformation (environmental, social, institutional, etc.)
- The need for more effective and targeted access and use of information and communications technology (ICT) to address gender inequalities
- Enhancing existing knowledge across the rural economy to help stem the rural exodus of young people to urban centres; and building a more integrated rural economy where developing business enterprise and technical skills, as well as training, attracts young people though providing the potential to move up the agricultural value chain.
- Exploring how agroecology can more adequately address the challenge of sustainable agricultural development through a more holistic approach to managing environmental resources
- Creating more meaningful partnerships across the formal private sector, national governments, research institutes and, most critically, engaging the informal private sector to build Africa's STI knowledge and implementation capacity

The global population rise and the growing demand for food: The growing demand for food needed to meet the surge in the global population is just one example of the structural challenges facing African agriculture and the need for smart and holistic STI to integrate the rural economy across the continent. Africa's structural challenges reinforce the critical role played by women, who represent the majority of those working and cultivating the land. Yet, women and girls are not considered as users (or indeed creators) of STI, or contributors to its development. The role women and girls play in developing and implementing STI are essential for improving productivity in food production, enhancing the resilience of crop varieties and relieving the pressures on arable land, given the challenges posed by climate change and increasing urbanisation. The invisibility of women and girls in this regard is illustrated by a study focused on Malawi, undertaken by the International Institute for Environment and Development (IIED). The report found that training programmes teaching contour ploughing and contour farming practices to address topsoil loss and soil erosion (by planting across slopes to trace lines of elevation and create water breaks to reduce the development of water troughs during heavy rain run-off) often took place in locations that women from rural areas neither had the time nor the financial resources to travel to and participate in.

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Representation: Given the fact that women are disproportionately responsible for food production across Africa, it is striking that they only represent 25 per cent of those in science and less than 15 per cent of decision-makers across agriculture and the rural economy. This is illustrated by the fact that companies marketing seed varieties rarely develop strategies targeting smallholder farming enterprises run by women, preferring to prioritise large-scale commercial farms, disproportionately headed by men. More broadly, women are under-represented in science education and research academies (e.g. representing four per cent in Tanzania), where the bulk of research funding is concentrated across the continent. The reality is that many women are adopting and adapting innovations in science and technology, however, there are far too few women developing and influencing its advancement. Responding to the challenges of greater participation and recognition of women in STI includes ensuring a critical mass of representative women in positions of leadership and involved in decision-making. This requires continued investment in mentorship and leadership programmes which help develop a cadre of female leaders and champions.

Improving representation: African Women in Agricultural Research and Development (AWARD) was established in 2008 and aims to improve outcomes for Africa's smallholder farmers by strengthening the voice of women on the farm, in laboratories, across markets and in policy fora - to build women's scientific competency across the continent. AWARD's experience suggests that national and regional seed companies are much more active in engaging with women smallholders to better connect global knowledge systems, compared to their international and multinational peers. Furthermore, providing support to women in enterprise is critical, particularly through prioritising female-led businesses across the value supply chain. Examples of best practice from Brazil and Cuba include working groups established to address the challenges of women's STI participation. Furthermore, at the Academy of Science of South Africa (ASSAf), women represented 24 per cent (in 2013) of its membership and 44 per cent of its researchers. This compared more favourably, vis-à-vis its peer organisations in industrialised economies. Nonetheless, there is still much room for progress.

Pastoralism; a view from the Horn of Africa: Nomadic pastoralism in the Horn of Africa is a billion dollar industry. This trade in livestock and associated products is supported by several service sectors including transport, marketing and processing. Pastoralism in this region of east Africa provides insightful lessons illustrating the importance of local and long-established informal knowledge networks (often centuries old) which ambitiously promote innovation (given on-going challenges such as drought, conflict and famine, etc.). Yet this knowledge is often disqualified, not on the basis of robust evidence, but on perceptions all too often held by a small group of elites (dominant in formal public institutions) who often have a narrow definition of what technology and development progress are. In addition, within pastoral communities, power is concentrated in the hands of elders (usually men), with women sharing little, if any, decision-making responsibilities. The debates about developing and enhancing effective and relevant science and technology in such contexts need to be open to much wider representation (particularly of women). This will allow for a process of greater democratisation and education needed to challenge myths and bias. Adopting technology which enables more representative constituencies (beyond elites in urban centres or in rural communities) to contribute to the design and development of innovation which works to enhance the impact of longstanding knowledge is key to supporting sustainable pastoral sectors. This is particularly pertinent given growing systemic uncertainty and insecurity issues, including climate change.

National and regional STI commitments need a stronger focus on women and implementation: African governments, regional organisations and the African Union (AU) have all made impressive policy commitments to support innovation through science and technology development. Examples include the Science, Technology and Innovation Strategy for Africa (STISA, 2014); the launch of the Science Agenda for African Agriculture (S3A) by the Forum for Agricultural Research in Africa – FARA; and the Regional Universities Forum for Capacity Development in Africa (RUFORUM). The latter has an AU mandate to champion STI to specifically achieve greater food and nutritional security.

How might such policy visions work to include more representative and diverse groups of women vis-à-vis developing these multiple agendas across the continent, as well as challenging current perceptions which hinder women's empowerment, resilience and wellbeing? Are these national and regional agendas adequately addressing women's contexts and specific realities (which are varied)? In addition, how might

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such policy commitments be funded, particularly given already insufficient investment in scientific research and development across the continent? How best can investment, participation and support from both the formal and the informal private sectors, as well as governments and wider civil society, be harnessed, co-ordinated and deployed? Developing an enabling environment might include incentives such as government seed-funding supported through tax relief as well as sponsorship of national, regional and pan-African competitions for workable innovation models to address challenges such as environmental and energy security issues.

Improving women's access to resources to build a more integrated rural economy: Expectations placed on women are increasingly unrealistic. Women produce 50 per cent of the continent's food, they represent over 66 per cent of agricultural labour, but have control over less than two per cent of assets across agriculture and the rural economy. Developments in STI are insufficient if they fail to be supported by important institutional and social reforms which work to reduce the level of inequality women encounter. For example, enabling women to access the capital and investments needed to reduce the physical burden of agriculture (e.g. mechanisation). In addition, improvements in access to better quality agricultural inputs - which are more responsive to women's lives and livelihoods (e.g. crops which produce quick-cook grains) - and access to affordable credit finance.

Understanding the potential of innovation: It is important to note that innovation is much more than a narrow focus on technology (and science). Beyond enhancing productive capacity, innovation also has the ability to facilitate transformation through new ways of delivering change. Examples might include addressing the constraints on women's time and developing new ways of improving access to and ownership of land. In a much broader sense, innovation has the potential to reshape the agricultural supply chain to improve women's wellbeing and resilience by recognising different channels to reach scale, improve quality and share knowledge.

A view from the Ethiopia: Ethiopia is attempting to develop an inclusive approach to agricultural and rural development, given the fact that the sector represents 80 per cent of total employment and over 80 per cent of overall exports. Women smallholders (who are themselves a diverse group – female-headed households, married women in male-headed households, etc.) are often challenged by the fact that their productive efforts are insufficiently recognised. For example, they rarely secure access to technology and innovation provided through agricultural extension services. Yet, for STI to help address the challenge of improving integration across the rural economy, increasing productivity is far from the only challenge. How might innovation address issues associated with cultural and social norms - which disproportionately have a negative impact on women and girls? For example, in Ethiopia, women are prohibited from farming with oxen or planting trees, so sharecropping and cultivating selected fruits and vegetables are important sources of self-sufficiency and income generation. How might STI be made more relevant and accessible to female agriculturalists to help tackle issues relating to the challenge of inadequate market information, as well as help to enhance women's existing agricultural knowledge in this context?

The challenge of access to information and services for rural women and girls: Can the internet represent a more effective tool to help empower women and girls through improving access to information, communication and digital technology? The web can help bridge the information gap across agriculture and rural economies through providing access to information which helps improve productivity, the availability of real-time market price information, raising awareness about women's rights and communicating e-government services targeted at rural areas, amongst other functions. However, women are nearly 50 per cent less likely to access the internet than men in the same communities. In addition, even once online, women are 30-50 per cent less likely than men to use the internet to increase their income or participate in public life. The barriers to entry keeping women and girls offline include inadequate levels of education, a lack of internet skills and high usage costs. ICTs (including access to the internet) can provide important platforms to improve women's ability to make effective choices to support wellbeing across every aspect of their lives, both online and offline; however, gender norms which restrict access need to be addressed to promote greater democratisation in access to and use of ICTs.

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'Agripreneurship' – women and agricultural enterprise: Nestlé works with 4.1 million farmers across Africa, 760,000 of which represent smallholders concentrated in coffee and cocoa (two of Nestlé's 12 priority commodities). Its significant presence across Africa requires substantial investment across Nestlé's supply chain. One example of this investment commitment is the research and development centre in Abidjan (Côte d'Ivoire) established in 2009 which undertakes national and regional agricultural research and development. Nestlé has also attempted to innovate the way in which it engages across its value chain. Through its 'Farmer Connect Programme', Nestlé supports the development of 'Agripreneurship.' In essence, the programme supports the development of farming expertise, natural resource stewardship and business skills development to help smallholders cultivate, sell and engage in the wider market place. This support also includes cultivating income-generating staple crops such as cassava. In 2015, 400,000 smallholders participated in the programme.

Promoting agriculture and the rural economy among young people: Identifying ways in which commercial, and large-scale agricultural programmes can harness farmers' existing unique knowledge (which often goes unrecognised) and challenge unconscious bias are critical. To help build reliable partnerships across its supply chain, Nestlé has developed a number of strategies including the Rural Development Framework, Action Plan on Women in the Cocoa Supply Chain as well as technical training and skills development programmes which are accompanied by gender awareness training for those working across Nestlé's wider value chain. This has helped to develop stronger partnerships with an increasing number of women's associations and directly with women farmers in an attempt to put women 'front and centre' of Nestlé's supply chain. Nestlé works with its partners to increase women's representation on the boards of cooperatives by challenging conventional norms and providing incentives via support through education and training. Yet, how effective is such an approach in terms of embedding change and scaling-up women's representation beyond a handful of dynamic individual personalities? In addition, young people across the rural economy, including potential female leaders, increasingly tend to be far less interested in agriculture. They are more inclined to want to either migrate to more urban areas or develop skills beyond the farm gate such as processing (greater industrial production), where STI is critical. How can this be meaningfully supported to link the economic sector across the rural economy?

Agroecology - challenging mainstream development thinking and practice: Are the current development challenges confronting Africa being adequately addressed by established STI thinking? Agriculture continues to be overburdened with multiple priorities, including achieving scale, supporting greater commercialisation and an emphasis on inputs and outputs; all at the expense of what appears to be long term and sustainable impact. Agriculture is also expected to respond to food and nutritional security issues, improving livelihoods and employment (particularly for women and young people) as well as empowering women in terms of decision-making and leadership, promoting enterprise and responding to environmental protection issues, among many other priorities. These expectations often mean policy responses are more quantitative than qualitative in nature and as such, their impact is limited as policies are arguably inadequately informed by robust evidence. Thus, the Green Revolution in agriculture across South Asia is often considered to be a development triumph. Yet, rural Asia continues to suffer with acute levels of poverty, inadequate nutritional security and growing levels of rural migration to urban areas ill-equipped to deal with the mass influx. Nonetheless, farmers and the wider agricultural sector are still expected to deliver on the multiple priorities shaped by current development thinking, which ineffectively responds to the on-going development dilemmas and merely creates pockets of progress; 'islands of excellence in seas of chaos.' How best can development thinking focus on agriculture to look beyond increasing yields, productivity and outputs to support more holistic and inclusive transformation across the rural economy? How can efficiency across agriculture be re-explored; to better support environmental (climate resilience, holistic landscape stewardship, etc.), economic and social wellbeing, which will provide better agricultural development outcomes for all particularly women and girls?

Understanding the ecological systems that will deliver better sustainable agricultural production: A more inclusive and responsive approach to agricultural development can be provided through fresh thinking around agroecological design and management. This provides a more rounded approach to agriculture and food production, enhancing long-established local knowledge and experiences to promote both alternative and complementary approaches to support sustainable agriculture. Agroecology recognises

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the importance of ecological technology which has a more contextually informed understanding of natural resources, complementing conventional agricultural development by providing low cost and low risk development. This might include practices such as crop rotation and fallowing, efficient water harvesting (using rain water rather than overexploiting water tables), the use of cover crops and mulching, conservation tillage and agro-forestry. Population growth across the continent provides important opportunities for cultivation through agroecology to better service both domestic and local markets. It also improves the availability of healthy, nutritious and sustainable food options. Public policy and procurement strategies can provide an important platform for agroecology to support institutional innovation which helps develop more robust evidence by offering payments for landscape conservation and providing economic incentives for agroecology adopters. For example, informal seed selection by farmers has proven to be an effective and holistic farming strategy which currently enjoys little formal public sector support. Thus, how can women and girls be supported to enhance their existing knowledge through agroecology to support a more integrated rural economy?

Africa's future and the role of agriculture: What does the future hold for agriculture and the rural economy across the continent given the mass exodus of young people from rural areas? By 2030 many African countries aspire to become knowledge-based economies, where wealth is created through technology and intellect, as opposed to natural resources, physical capital and low-skilled labour. Is this realistic given the projected population growth? In addition, are the expectations of national governments' abilities to support innovation through science and technology across agriculture and the rural economy too ambitious? Are there questions about state legitimacy, competence and quality (as well as availability) of requisite infrastructure provision? Moreover, in the interests of structural transformation, can national governments realistically expect significant innovation investment to be provided by the private sector alone? What impact does all this have for the fight to tackle inequality across Africa? How can the public sector meaningfully engage in this process with its limited resources? How can more meaningful links be created between universities, research academies and institutes, as well as, more significantly, the wider informal private sector – where it is increasingly acknowledged that much innovation takes place but fails to be widely recognised.

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USEFUL LINKS PROVIDED BY PARTCIPANTS
Access to Seeds Index Report 2016

Pastoralism and Development in Africa; Dynamic Change at the Margins (2012)
https://www.routledge.com/products/9780415540728

Women's Rights Online study, the gender gaps in internet access and digital empowerment (Web Foundation 2015)

The Alliance for Affordable Internet Affordability Report (2016)

Agroecology; what it is and what it has to offer http://pubs.iied.org/pdfs/14629IIED.pdf
(International Institute of Environment and Development - IIED, 2014)

A selection of SciDev.Net articles on gender, development and the private sector
Focus on Private Sector: Female suppliers drive profits

Africa Analysis: Science academies are failing women

Focus on Private Sector: Smash Arab world glass ceilings

Seed firms accused of neglecting female farmers

View on Gender: Exclusion endangers climate fight

Focus on Gender: Reliable data can erode inequality

Investing in female scientists to feed Africa

Mauritian president discusses why traditional medicine matters

The Foreign Policy Centre's *Africa Rising* series
Employment, enterprise and skills: Building business infrastructure for African development
(Foreign Policy Centre, 2014)

Enterprising Africa: What role can financial inclusion play in driving employment-led growth?
(Foreign Policy Centre, 2016)

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