The agriculture sector supports livelihoods of more than two thirds of the population in most developing countries. The majority of these populations are resident in rural areas. Given the pivotal role of agriculture in sustaining rural livelihoods, upscaling investment in agriculture is thus the most direct route to combating rural poverty, hunger and malnutrition. The Government of the Republic of Zimbabwe (GRZ) (2016), reaffirmed its policy position to encourage Foreign Direct Investment (FDI) in the form of Public Private Partnerships (PPPs). These PPPs are targeting agriculture, infrastructure and mining through the 10-Point Plan within the context of the Zimbabwe Agenda for Socio-Economic Transformation (ZIMASSET), the Comprehensive African Agriculture Development Programme (CAADP) and Sustainable Development Goals (SDGs). This deliberate policy position is expected to see an increase in large scale investments in rural communities of Zimbabwe as private and state-owned local, and international agribusiness enterprises respond to rising commodity prices in mining and the strategic need to achieve food and energy security.

Despite the high appetite for large scale investments, there are concerns over the likely negative impacts of such investments on local people's livelihoods. Kidido and Kuusaana (2014) observed that the effect of these large-scale investments on food security, nutrition and livelihoods on the rural communities depends on how the investment is implemented given the circumstances in the area. Thus, they differ within communities and between communities, investors and governments depending on the business models in place that is the combination of all the development initiatives defining the type of investors-community linkages, partnerships and relations. Less conflict and positive impacts in terms of household productivity, income and food security are likely where implementation of large-scale investment fulfils promises made to local communities taking into account their local institutions, norms and values. The World Bank (2014, 2016) warns that relocation and resettlement of families is a common borne of contention in setting up agriculture investments. Once they are set up, they influence the standards of living of local communities in three main ways: the extent and type of employment generated; the development of linkages to other parts of the value chain through such programmes as out grower schemes, warehouses, or processing operations; and implementation of community development programmes, on infrastructure, vocational training and programmes that improve productivity and access to education, water, health.
Methodology

The research adopted a case study approach to enable a detailed analysis of the impact of large scale investments on rural livelihoods. The cases were selected based on the magnitude of investment and a number of salient variables that include the investment business model along the value chain. Given the short time available for the study, only two cases were chosen – Green Fuels, and Tongaat and Hullet. These were deemed representative investment models of interest as they all are land based and involve investments along the whole sugarcane value chain, hence allows for a comprehensive lesson to be drawn for future investment decisions and coordination. The common focus on sugarcane allowed comparison between the two models. Under each case study, the study used a sample survey design combining quantitative and qualitative research methodologies. The quantitative method included a sample survey of farming households surrounding the selected agriculture investments – Green Fuels and Tongaat Hullet. This was complemented by qualitative methodologies, which included desk study and key informant interviews. The purpose of using qualitative data collection techniques was to seek qualitative explanations to the quantitative data.

All farming communities that surround Green Fuels in Chipinge district, and Tongaat and Hullet in Chiredzi district were used for the assessment. Six thousand Four Hundred and Nine (6,409) households around Green Fuels and Two Thousand Two Hundred and Fifty (2,550) households around Tongaat Hullet in Chiredzi district. The Tongaat Hullet model was unique in that it also included A2 farmers. The study used a stratified sampling method based on gender of household head to identify households to be interviewed. This technique was used to ensure that estimates are made with accuracy and that comparisons can be made with equal statistical power since the sample size of each layer (strata) is proportional to the size of the layer (sample size of layer = size of whole sample/size of population x size of layer). For the purposes of this assessment wards surrounding the project site were chosen. The sample size for the Green Fuels Case Study was 637 (359 beneficiaries, 278 non-beneficiaries) and that for Tongaat Hullet Case Study was 591 (298 beneficiaries, 293 for non-beneficiaries).
Results

Impact
The study measured household’s productivity, land ownership, income and expenditure, water availability and disease occurrence and food security. The study therefore deduced from the two cases that the impact of large scale investments can either be positive or negative depending on the mix of benefits and differs within and between communities depending on the performance of the business and government influence.

<table>
<thead>
<tr>
<th>Impact Indicator</th>
<th>Impact</th>
<th>Lessons Learnt</th>
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<tbody>
<tr>
<td>Land Ownership</td>
<td>Large scale investment increased ownership of irrigated land and reduced ownership of dryland.</td>
<td>The involvement of government is crucial to ensure delivery of irrigation plots and minimise negative impacts that may arise out of dispossession or displacement.</td>
</tr>
<tr>
<td>Production and Productivity</td>
<td>Large scale investment impact on productivity depends on the mix of investment benefits to community, and the nature and adequacy of the individual benefits.</td>
<td>Government involvement is central to influencing the mix of investment benefits to the community as well as the nature and adequacy of the individual benefits. There is limited knowledge and skills transfer for both non-project crops (sugarcane) and non-project crops (sugarbeans cotton and maize).</td>
</tr>
<tr>
<td>Income and Expenditure</td>
<td>Large scale investments improve income and expenditure of the surrounding communities.</td>
<td>Not all the benefits necessarily translate to increased income and expenditure. There is need for viable and up-to-date payment of salaries and wages and profitable markets for produce from irrigation land.</td>
</tr>
<tr>
<td>Safe Water and Disease Occurrences</td>
<td>Large scale investments do not necessarily reduce water borne diseases prevalence.</td>
<td>Large scale investments reduce exposure to unsafe water sources, but the reduction in exposure to unsafe water does not translate to less prevalence of water born diseases. Households continue to use unsafe water for issues of distance and availability of water all year round. Large scale investments, for lack compliance with EMA or public health standards, may result in open water bodies that create good breeding ground for mosquitpoes and increase prevalence of water borne diseases or non-delivery of importance services to promote healthy surrounding communities.</td>
</tr>
<tr>
<td>Food Security</td>
<td>Large scale investments may improve food availability and food security of surrounding communities depending on the structure and adequacy of benefits delivered.</td>
<td>Not all benefits deliver increased food availability and food security. There is need for viable and up-to-date payment of salaries and wages and profitable markets for produce from irrigation land.</td>
</tr>
</tbody>
</table>
Achieving a systemic local level coordination institutional infrastructure for the large-scale agriculture investment supply chain will sustain a positive vertical impact logic by minimizing conflict between communities and large-scale investments. This will assist in ensuring compliance and minimize negative impacts as well as ensuring delivery of relevant benefits to surrounding communities to maximize positive impacts.
Sustenance of a vertical logic

There are two perspectives to sustaining the positive vertical logic that is the benefits portfolio, and the nature and adequacy of benefits perspectives. The portfolio perspective of the vertical logic suggests that an investment cannot deliver a single output and hope to have an impact on communities without also delivering outputs that improve the capacity of the communities to utilise the later effectively. An investment that delivers irrigated land only does not necessarily guarantee productivity improvements unless it combines that with input support, irrigation management, production extension support services and market linkages. The outputs interact and guarantee a positive vertical impact logic. Yet the nature and adequacy perspective of each of these outputs is still equally important.

The nature and adequacy perspective suggest that there is need to sufficiently invest in each deliverable to ensure that no output becomes a limiting factor in the delivery process. An investment that delivers inputs may not guarantee productivity improvements unless the input package is complete. In the same interpretation, salaries and wages may not guarantee better income and food security, if they are below the cost of living, or worse still if they are not received in due course. The nature and perspective also suggests that market access support should go beyond the investment’s own value chain to include other value chains that support livelihoods of surrounding communities. The prices involved in any market access support system determine the direction of the vertical logic. If prices are not profitable, the vertical logic will have a negative impact on food security and standards of living of the surrounding communities. Farmers’ organization and capacity to lobby for good prices is not a replacement for the important role of government in influencing off-take prices of raw and or valued-added products. This is more so where there are legislative impediments such as the Sugar Act which only recognizes one sugar association. There is need for a level playing field for prices negotiations. The performance of the business model becomes very critical in this instance to sustaining a positive vertical impact on productivity, income, food security and access to social services. Where a business is struggling, the first to suffer are the linkages with surrounding communities including loss of employment.
Role of Government in Sustaining a Positive Impact by Large Scale Investments

Investors in large scale agriculture projects are not any different from any other investor. They are business focused in their approach and seek to maximise their businesses’ bottom line – profit. They may not necessarily invest in the best structured investor-community linkages that will continue to drain resources from their business where they can get away with non-compliance or they simple invest the barest minimum in order to minimise costs. In some cases, they may boast in the glory of the quantum of investments in the community without due consideration of whether investment portfolio mix is relevant to problems of the communities or if each of such investments is enough to make positive impact as they may only want to be seen as doing something about the communities in which they are located.

Local level coordination institutional infrastructure and value chain facilitation type of government interventions – policies, laws and standards, and technical and support services – may be necessary as an important component of sustenance of the vertical logic required to guarantee a positive impact of large scale investments on the surrounding communities. Hence collaboration between Government and the investor is key. At the activity and resources levels, Government intervention influences the identification of the investment, and the level of corporate social responsibility of the investment and its design in terms of the planned outputs to be delivered to surrounding communities and the delivery mechanisms.

At the outputs level, Government monitors implementation of investment plans enforcing compliance and fulfillment of promises. Government thus influences the mix of outputs – land, value chain support arrangements, employment and corporate social responsibility programmes – as well as the nature and adequacy of each of the outputs. These are the portfolio, and nature and adequacy perspectives of the vertical logic. Depending on options available, government can influence whether the large scale investment will displace or resettle communities on dryland or irrigated farming land or both, and what will be the level of fair compensation for the affected communities or households.
Policy Recommendations

Establish an investment coordination mechanism at province and district levels led by Ministry of Rural Development and Promotion and Preservation of National Culture and Heritage with Ministry of Macro-Economic Planning and Investment Promotion as the Secretariat through provincial offices.

1. Intensified government involvement: (i) ensure compliance; (2) ensure responsible investment; and (3) minimise negative and maximise positive impacts:

- Influence location of core estate to avoid dispossession or ensure better relocation.
- Ensure promises of irrigation development are delivered to the remaining households.
- Ministry of Energy and Power Development legislated for mandatory blending and negotiates price of ethanol with investor.
- Influence review of pricing of out grower cane where farmers have completed repayments of developments done by the company.
- Enforce spraying programmes – EMA
- Ensure sufficient input packs
- Enforce rehabilitation of road infrastructure
- Provide extension, market linkages support and capacity building of irrigations schemes in order to dully utilize schemes and expand from sugar beans to horticulture and establish strong market linkages

- Government policy resulted household settlement under A1, A2 and Old Resettlement models.
- The Ministry of Industry and Commerce announces the Division of Proceed.
- Develop farmers’ capacity to negotiate sugar prices
- Review of Sugar Production Control Act – only recognizes ZSA
- Ensure adequate input packs
- Provide support to out growers to improve the yield of sugarcane
2. There is more need for collaboration between government and investor to achieve more inclusive models that respond to the demand for land by increasing out-grower contribution.

<table>
<thead>
<tr>
<th>Model</th>
<th>Core Estate: Out grower</th>
<th>Recommended collaboration</th>
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<tbody>
<tr>
<td>Chisumbanje</td>
<td>Core estate 9 500 ha</td>
<td>Implementation of plans</td>
</tr>
<tr>
<td></td>
<td>Out grower 650 ha (7%)</td>
<td>Development of 40 000 ha at Chisumbanje to include out growers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of 6 000 ha A2 out grower scheme at Middle Sabi</td>
</tr>
<tr>
<td>Tongaat Hullet</td>
<td>Core estate 29 000 ha</td>
<td>Implement of vision</td>
</tr>
<tr>
<td></td>
<td>Out grower 16 00 ha (46%)</td>
<td>Increase out growers to 37 000 ha (59%) using land at Torkwe Mkosi</td>
</tr>
</tbody>
</table>

The government should explore how it can ride on incentives such as special deductions to partner investors in financing irrigation development and promote a more inclusive model. Community share ownership trusts need to be tailor made to specific investments so that they are the source of funding for irrigation development projects.

3. Socio cultural issues to be considered - men not utilising 0.5 ha irrigation plots.
4. Review of the Sugar Act which only recognises one sugar association whilst there are now many associations;
5. Community development programmes should be designed in such a way that they also benefit the youths and elderly.
6. Extension and specialist services support including training in irrigation management, market linkages and awareness campaigns on safe drinking water.
7. Further research required to ascertain water quality, viability of sugarcane in terms of area, yields and pricing, and explore scope of profitable market linkages for irrigation in Chisumbanje to enable them do horticulture.

The policy brief was prepared by Grace Nicholas-Nkomo an Independent Consultant and was reviewed and edited by Byron Zamasiya and Darlington Chidarara of ZELA. This policy brief was necessitated by a study which was conducted by the Zimbabwe Environmental Law Association (ZELA) in collaboration with the Department of Economics and Markets of the then Ministry of Agriculture, Mechanisation and Irrigation Development (MAMID) titled, “THE IMPACT OF LARGE SCALE INVESTMENTS ON THE LIVELIHOODS OF SMALLHOLDER FARMING COMMUNITIES: THE CASES OF GREEN FUELS AND TONGAAT HULLETT ZIMBABWE” by Clemence Bwenje, Tafadzwa Dhlakama and Grace Nicholas-Nkomo.

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