**Pursuing Sustainability in Uganda: A Research Guide**

**How to Use This Case Study**

This research guide provides a foundation for analyzing Uganda's pursuit of sustainability throughout your course. As you progress through different units, you'll return to this case to apply new concepts and frameworks:

* In Part I, you'll use this information to assess Uganda's goals, resources, and well-being indicators
* In Part II, you'll analyze the complex dynamics of Uganda's nature-society systems
* In Part III, you'll evaluate Uganda's capacities for sustainable development

The guide is organized to match the course framework, but it's just a starting point. Your task is to build on this foundation through additional research, critical analysis, and application of course concepts to develop a deep understanding of Uganda's sustainability challenges and opportunities.

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**Introduction**

### Purpose of This Case Study

A central challenge in the pursuit of sustainability is how to integrate general knowledge of core principles with specific knowledge of local contexts to provide useful guidance for action on the ground. This case study provides a foundation for applying sustainability concepts and frameworks to a concrete case: the East African nation of Uganda.

This guide is intended as a \*\*starting point\*\* for research into Uganda. It is critical to understand that this guide is just a springboard for deeper inquiry. Your job is to become well-versed in Uganda and its potential to effectively pursue sustainability. This requires:

- Critically reading this document and the linked citations

- Delving deeper into available literature on Uganda

- Exploring broader literature in sustainability science and related fields

- Understanding the complexity of the social-environmental system (SES)

Many mistakes in designing interventions to meet sustainable development goals stem from failing to fully grasp the complexity of the social-environmental system. You should be prepared to defend your supporting evidence through thorough, thoughtful research using credible, well-chosen sources.

### Structure of This Guide

1. Brief introduction to Uganda and its sustainability goals

2. Historical context setting the stage for modern-day sustainability challenges

3. Overview of human well-being in Uganda today

4. Exploration of capital asset stocks in Uganda

5. Examples of complex social-environmental system linkages

6. Guidance on conducting expert interviews

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## 1. The Uganda Case: Context and Goals

### Overview

Modern-day Uganda is located in East Africa. The country gained independence from Britain in 1962, making it a relatively young nation. Today, Uganda has a population of approximately \*\*45.7 million people\*\* (more than the population of Canada) in a land area similar in size to the U.S. state of Oregon (population 4 million). The Ugandan population is notably young, with over 80% aged 24 or younger.

The people of Uganda are, on average, very poor and predominantly rural, with most depending on farming and agriculture for survival. However, Uganda aspires to lift its people out of poverty.

### National Vision and Goals

\*\*Uganda Vision 2040\*\* aims for "A transformed Ugandan society from peasant to a modern and prosperous country within 30 years."

The country's National Development Plans identify priority investment areas selected for their potential "multiplier effect" on the economy:

- Agriculture

- Tourism

- Minerals, oil and gas

- Infrastructure development

- Human capital development

- Natural resources, environment, climate change, land and water management

Uganda aims to achieve annual GDP growth of approximately 6-7% to significantly raise growth from recent averages of 4.5-5.0%.

\*\*Vision 2040\*\* highlights that transformation requires:

- Strengthening infrastructure (energy, transport, water, oil and gas, ICT)

- Improving Science, Technology, Engineering and Innovation (STEI) capacity

- Improving land use and management

- Improving urbanization strategy

- Strengthening human resources

- Promoting peace, security and defense

### Key Citations

1. Government of Uganda. 2013. "Uganda Vision 2040."

2. Government of Uganda. "National Development Plans."

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## 2. Historical Context

### Early History and Pre-Colonial Period

Uganda has been settled by humans for 100,000 years and has long encompassed a wide range of languages and cultures. The region's landscape and climate—particularly its reliable rainfall and fertile grasslands—made it attractive to herders and farmers. Early settlers appear to have been Bantu-speaking peoples who spread across southern Africa.

Between the 13th and 16th centuries, the area evolved from a clan system to a series of kingdoms. \*\*Buganda\*\*, the largest kingdom, came to dominate the region and engaged in complex trade systems with Swahili and Arab traders, increasing in influence and wealth over centuries.

### European Contact and Religious Transformation (19th Century)

In the 19th century, European traders arrived seeking ivory and slaves. From the 1840s onward, religious missionaries from various faiths entered the region, converting many to Christianity and Islam. These conversions represented significant cultural and political shifts:

- Rulers of Buganda manipulated religious divisions to control various factions

- Converted Bugandans formed a new, often educated class advocating government reform

- In the 1880s, King Mwanga II executed 45 Christian converts (the "Uganda Martyrs"), an event widely publicized in Great Britain and used to argue for annexation

### The Scramble for Africa and British Control

The 1880s saw the "Scramble for Africa," with European powers—particularly Britain, France, and Germany—competing to annex African territories. Britain and Germany extensively negotiated over rights to East Africa.

\*\*Key developments:\*\*

- 1888: Political parties based on Catholicism, Protestantism, and Islam united to overthrow King Mwanga

- Mwanga regained power by granting trade control to the British East Africa Company (IBEAC)

- Religious factions struggled amongst themselves, creating divisions that would reverberate into the 20th century

- 1894: The region became a British protectorate during the height of British Imperialism

Under British rule, Buganda's borders expanded to approximately Uganda's current area. Mwanga later regretted accepting protectorate status and launched unsuccessful attempts to remove the British, ultimately dying in exile.

### The Uganda Railway and Colonial Development

Britain constructed the Uganda Railway from Mombasa through Nairobi to Kisumu on Lake Victoria's eastern shore. The railway's purpose was to make the territory profitable—a central tenet of Imperialism.

\*\*Railway construction:\*\*

- Over 7,000 workers brought from India (mostly Sikhs from Punjab)

- Kenyans and Ugandans employed at reduced wages

- Harsh conditions: arid landscape, rampant disease, dangerous wildlife

- Completed in 1903, opening the region to import/export of goods

### Demographic Catastrophes (Late 19th/Early 20th Century)

Several factors drastically reduced native populations:

1. \*\*Rinderpest\*\* (cattle disease from central Asia, 1887): Killed up to 90% of African cattle, leaving pastoral peoples without livestock for food, income, or plowing

2. \*\*Human diseases\*\*: Introduced diseases devastated populations

3. \*\*Drought\*\*: Widespread periods of drought compounded food insecurity

4. \*\*Sleeping sickness\*\*: Cattle decimation led to bush regrowth, ideal for tsetse flies carrying sleeping sickness parasites, killing millions by 1920

Historian Mike Davis referred to this period as "Late Victorian Holocausts." These catastrophes created the landscape British settlers encountered: wild, populated by megafauna, and relatively devoid of people.

### Colonial Economic Development

In following decades, Britain focused on making Uganda profitable through cash crops, especially cotton. WWI and WWII resource demands benefited Uganda's economy, as did rebounding human populations. However, Ugandans increasingly resented British agricultural price regulation.

In 1949, tensions erupted into riots protesting agricultural restrictions and lack of political representation. Post-war Britain, divesting many Imperial acquisitions, began preparing Uganda for independence.

### Independence and Post-Independence Conflict (1962-1986)

\*\*Lead-up to independence:\*\*

- Proliferation of political parties presenting different visions for Uganda

- 1962: Independence from Britain as a commonwealth; first elections held

\*\*Early independence challenges:\*\*

- 1962-1967: Power struggle between central government and the Kingdom of Buganda

- 1967: All kingdoms abolished; Uganda declared a republic

- 1971: General Idi Amin seized power through military coup

\*\*Idi Amin's regime (1971-1979):\*\*

- Ruled through violence and mass killings

- Estimates: 100,000-500,000 killed

- Regime toppled by Uganda-Tanzania War

\*\*Continued conflict (1979-1986):\*\*

- Struggle between National Resistance Army (led by Yoweri Museveni) and President Obote

- NRA alleged election fraud, refused to accept Obote's authority

- 1986: Museveni triumphed, became president

### Contemporary Political Context

Museveni has remained president since 1986. Key political developments:

- Political parties suspended until 2005, when a referendum allowed parties to operate freely

- 2005: Presidential term limits abolished

- Subsequent elections (2011, 2016, 2021) marked by widespread allegations of fraud domestically and internationally

- Concerns about corruption, voter intimidation, and detention of opposition candidates

### Key Citations

1. Reid, R. 2017. \*A History of Modern Uganda\*. Cambridge: Cambridge University Press.

2. Kasozi, A.B.K. 1994. \*The Social Origins of Violence in Uganda: 1964-1985\*. Montréal: McGill-Queen's University Press.

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## 3. Human Well-Being in Uganda

### Overall Performance

Uganda has made substantial gains in economic growth and poverty reduction since the 1990s. The World Bank notes that "Uganda had one of the best poverty reduction performances in the world since 1992, a result of structural transformation of household livelihood portfolios, rooted in strong growth in private wage and salary employment and non-farm household enterprises, and increased agriculture productivity."

Despite this progress, Uganda remains very poor by global standards. Recent data suggests rural poverty improvements from the 1990s may have reversed since 2000. Economic growth has been uneven, creating widespread inequality between rural/urban settings and within rural areas. Northern and Eastern regions lag significantly behind the center of the country.

### Framework for Measuring Well-Being

The indicators examined in this section capture the \*\*constituents of well-being\*\*—the dimensions people actually experience as quality of life, such as health, education, income, and living conditions. As you'll explore in the course, these differ from the \*\*determinants of well-being\*\* (the resources examined in Section 4) that enable societies to produce these well-being outcomes. In other words, constituents are the ends we seek (what people actually experience), while determinants are the means (the resources societies draw upon to achieve those ends).

Multiple factors contribute to human well-being:

- The OECD's Better Life Initiative identifies 11 topical areas (housing, income, safety, environment, etc.)

- The UN's Sustainable Development Goals (SDGs) identify 17 goals related to well-being

This section examines multiple indicators to understand current status and trends, including:

- GDP per capita

- Human Development Index (HDI)

- Subjective well-being data

- SDG performance

- Health and education indicators

- Inequality measures (Gini coefficient)

\*\*Note:\*\* This is not comprehensive. Deeper investigation is essential for robust analysis.

### Key Indicators

\*\*Economic Measures:\*\*

- \*\*GDP per capita:\*\* $794 (PPP 2018), ranking 171st out of 264 countries globally

- \*\*Human Development Index (HDI):\*\* Ranks 159th out of 189 countries (2019)

- HDI is a composite capturing life expectancy, education, and income per capita

- \*\*Subjective well-being:\*\* Ranks 110th out of 133 countries (Gallup survey)

- \*\*SDG performance:\*\* Ranks 140th out of 162 countries

\*\*Health Indicators:\*\*

- \*\*Life expectancy:\*\* Increased from 45.9 years (1990) to 63.0 years (2018)

- Global ranking: 154th out of 183 countries

- \*\*Under-five mortality:\*\* Declined from 179 per 1,000 live births (1990) to 66 (2013)

- \*\*Maternal mortality:\*\* Declined from 780 per 100,000 live births (1990) to 360 (2013)

- \*\*HIV/AIDS deaths:\*\* Decreased from 440.3 per 100,000 (2000) to 169 per 100,000 (2012)

- Remains the number one cause of death

- \*\*Other major causes of death:\*\* Malaria and diarrheal diseases

- \*\*Health inequality:\*\* Wide disparities in childhood nutrition linked to household income

\*\*Education Indicators:\*\*

- \*\*Mean years of schooling:\*\* Increased from 2.8 years (1990) to 6.1 years (2018)

- \*\*Universal primary education:\*\* Implemented in 1997

- Grade 1 enrollment surged from 700,000 (1996) to 2.02 million (1997)

- \*\*Attrition challenges:\*\*

- Grade 2 enrollment (1998): Only 1.4 million

- Sharp drop-off between 6th and 7th grade (many fail required exams)

- \*\*Educational inequality:\*\*

- ~40% of children from richest 20% of households reach grade 9

- <10% of children from poorest 40% of households reach grade 9

- Drop-off rates highest for poorest female students

\*\*Inequality:\*\*

- \*\*Gini coefficient:\*\* 43% (middle of global range)

- Global range: 17% (Azerbaijan) to 63% (South Africa)

- U.S.: 46%; France: 33%

- \*\*Trend:\*\* National Gini increased from 37% (1992) to 43% (2009), indicating rising inequality

- \*\*Rural vs. urban:\*\* Urban areas more unequal than rural (where almost everyone is poor), but inequality rising in both

### Key Citations

1. World Bank. 2012. "Poverty Trends in Uganda: Who gained and who was left behind?" Working Paper 69519.

2. Gallup-Sharecare Well-Being Index. 2014. "Country Well-Being Rankings."

3. UNDP. 2019. "Human Development for Everyone: Briefing note for countries on the 2019 Human Development Report: Uganda."

4. SDG Index & Dashboards. 2019. "SDG Index and Dashboard Report: Uganda."

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## 4. The Productive Base: Resources in Uganda

### Framework

The productive base comprises five types of resources—necessary (but insufficient) ingredients for improving human well-being:

1. \*\*Natural capital:\*\* Ecosystems, climate, biogeochemical cycles

2. \*\*Human capital:\*\* Population, health, education (as means, not ends)

3. \*\*Manufactured capital:\*\* Industry, transportation, infrastructure, habitation

4. \*\*Social capital:\*\* Trust, norms, institutions

5. \*\*Knowledge capital:\*\* Capacity for research and innovation

\*\*(Note: Throughout this case study, we use "resources" as the general term, though you may encounter equivalent terms like "capital assets" or "capital stocks" in the literature and in course discussions. These all refer to the same concept.)\*\*

Understanding sustainable development requires:

- Assessing current state of each type of resource

- Understanding historical trends

- Gauging future trajectories

Understanding how these resource stocks generate (or fail to generate) human well-being requires examining the \*\*consumption-production system\*\* through which people harness resources to meet their needs. It also requires attention to the \*\*actors\*\* (individuals, communities, firms, government) who control and manage these resources, the \*\*institutions\*\* (rules, norms, culture) that shape how resources can be used, and the \*\*power relationships\*\* that determine whose interests prevail in resource management decisions. These system dynamics are explored throughout the case study below and will be central to your analysis as you apply course concepts.

### 4.1 Natural Capital: Ecosystems, Climate, Biogeochemical Cycles

\*\*Natural Resource Endowment:\*\*

Uganda has abundant natural capital:

- Lakes and rivers

- Forests

- High biodiversity

- Mineral deposits: copper, tungsten, cobalt, gold, phosphate, iron, limestone

- Petroleum: Significant quantities discovered in Lake Albert rift basin (2008)

\*\*Environmental Performance:\*\*

- Ranks 145th out of 180 countries on Yale's Environmental Performance Index

- Composite ranking of forests, biodiversity, habitat, water, sanitation

- Particularly poor performance: waste management, water treatment, forest decline

\*\*Forest Decline:\*\*

As a predominantly rural country, natural capital is critical to most Ugandans' livelihoods. Forest coverage presents a significant challenge:

- 1990: Forested area >45,000 km²

- 2012: Forested area ~25,000 km²

- \*\*Causes:\*\* Clearing for agriculture, use for household cooking fuel

- \*\*Complex impacts:\*\* Fuel scarcity affects well-being, but indoor wood cookstoves harm health

\*\*Climate Change:\*\*

Climate change already significantly impacts Uganda:

- \*\*Agriculture sector:\*\* Increased droughts hampering farm yields

- \*\*Economic assessment:\*\* Ministry of Water and Environment estimates climate change could cost $3.2-5.9 billion USD annually within a decade

- \*\*Primary sectors affected:\*\* Water, energy, agriculture, infrastructure

- \*\*Vulnerability:\*\* Poorest people most affected, as their assets closely link to natural capital

\*\*Key Citations:\*\*

1. Environmental Performance Index. 2014. "Uganda: Country Profile."

2. Jagger & Kittner. 2017. "Deforestation and biomass fuel dynamics in Uganda." \*Biomass and Bioenergy\* 105:1-9.

3. Ministry of Water and Environment Republic of Uganda. 2015. "Economic Assessment of Impacts of Climate Change in Uganda."

4. McDonnell, T. 2017. "Here's What Climate Change Looks Like to Uganda's Coffee Farmers." National Public Radio.

5. United Nations Environment Program (UNEP) "Environmental Data Explorer": http://geodata.grid.unep.ch

### 4.2 Human Capital: Population, Health, Education

\*\*Population:\*\*

- \*\*Current:\*\* ~45.7 million, growing at 3.6% annually

- Higher than neighbors: Kenya (2.3%), Ethiopia (2.6%)

- \*\*Demographics:\*\* Half the population under 15 years old

- \*\*Life expectancy:\*\* 63 years (increased by 12 years from 2000-2012)

- \*\*Projected growth:\*\* Expected to reach 105 million by 2050

- Among 10 countries contributing half of world's population increase (2017-2050)

\*\*Fertility Rates:\*\*

- \*\*Historical:\*\* ~7.1 births per woman (1970s)

- \*\*2010:\*\* 6.5 births per woman

- \*\*2013:\*\* 5.9 births per woman

- \*\*Inequality:\*\*

- Poorest quintile (mainly rural): 8 children per woman

- Wealthiest quintile: Just over 4 children per woman

\*\*Health (covered in Section 3):\*\*

Key trends showing improvement but significant challenges remain in maternal/child health, infectious diseases, and health inequality.

\*\*Education (covered in Section 3):\*\*

Universal primary education achieved notable enrollment increases but faces major attrition and inequality challenges.

\*\*Key Citations:\*\*

1. United Nations Population Fund. 2020. "World Population Dashboard: Uganda."

2. United Nations. 2019. "World Population Prospects."

3. Population Reference Bureau. 2016. "The World at 7 Billion."

4. World Health Organization. 2015. "Uganda WHO statistical profile."

5. Ssewanyana & Kasirye. 2012. "Causes of Health Inequalities in Uganda: Evidence from the Demographic and Health Surveys." \*African Development Review\* 24(4):327-341.

6. Lewin, Keith. 2009. "Access to Education in sub-Saharan Africa: patterns, problems and possibilities." \*Comparative Education\* 45(2):151-174.

### 4.3 Manufactured Capital: Industry, Roads, Machines, Housing

\*\*Industrial Base:\*\*

Industry contributes a small percentage of GDP. Major industries focus on value-added processing:

- Tea, tobacco, sugar, coffee, cotton

- Grains, dairy, edible oils

Since political stability returned in the 1990s, foreign direct investment (FDI) has increased:

- Textile and steel mills

- Car assembly plant

- Tannery

- Cement factories

\*\*Energy Infrastructure:\*\*

Electric power supply combines manufactured capital (dams, hydroelectric stations) with natural capital (rivers):

- \*\*Primary generation:\*\* Naluballle and Kiira hydroelectric stations on Victoria Nile

- \*\*Total capacity:\*\* 850 Megawatts (U.S. has >1,200 times Uganda's capacity)

- \*\*Access:\*\* Only 15% of Ugandans have grid electricity access; only 7% in rural areas

- \*\*Rural energy:\*\* Firewood and charcoal (natural capital) provide majority of energy

\*\*Transportation Infrastructure:\*\*

Roads represent critical manufactured capital deficit significantly impacting well-being:

- \*\*2003 baseline:\*\* 16,300 km of paved roads in ~200,000 km² land area

- \*\*Historical comparison:\*\* "Not much greater than paved road density in Britain in 350 CE" (Gollin & Rogerson, 2010)

- "Uganda lags Britain by almost two thousand years" in road infrastructure

\*\*Impact of limited roads:\*\*

- Primary transportation: Walking

- Average distance to health clinic: 7 km; 77% walk to clinics

- Agricultural impacts: Harder for farmers to access markets (selling produce, purchasing inputs)

- Complex interactions: Road improvements affect agriculture productivity and enable labor reallocation from agriculture

\*\*Irrigation Infrastructure:\*\*

- Most Ugandan agriculture is rain-fed despite significant water resources

- Limited irrigation infrastructure restricts crop productivity

- Government emphasis on irrigation in agriculture plans recognizes potential for productivity gains

\*\*Key Citations:\*\*

1. Energypedia. 2017. "Uganda Energy Situation."

2. Gollin and Rogerson. 2010. "Agriculture, Roads and Economic Development in Uganda." NBER Working Paper 15863.

3. Mwaura and Katunze. 2014. "Enhancing agriculture production and productivity in Uganda through irrigation." Economic Policy Research Center, Uganda, Policy Brief No. 49.

4. The Guardian. 2010. "Uganda draws up national irrigation strategy."

### 4.4 Social Capital: Trust, Norms, Institutions

\*\*Political Structure:\*\*

- Legal system based on English common law and 1995 constitution

- Presidential system: Head of State elected by universal suffrage for five-year terms

- Current president has held office since 1986

- Recent elections criticized for fraud, voter intimidation, violence, lack of transparency, and harassment of opposition

\*\*Corruption:\*\*

- \*\*Public perception:\*\* 69% of respondents feel government performs badly on fighting corruption (Transparency International, 2015)

- \*\*Bribery:\*\* 38% of Ugandans report paying bribes for public services (past 12 months)

- Far higher than regional average

- \*\*Global ranking:\*\* 151st out of 176 countries on Corruption Perceptions Index (2016)

\*\*Elite Corruption:\*\*

Research identifies corruption as "an essential means of consolidating the present government in power" (Tangri & Mwenda, 2006):

- Formal anti-corruption institutions often usurped when threatening elite exposure

- International donors reluctant to criticize elite corruption

- View regime as effective regional partner for donor-sponsored economic reform

\*\*Local-Level Social Capital:\*\*

Research shows positive effects of social capital (defined as membership in local agrarian associations, farmer cooperatives):

- Positively affects household income, reducing poverty (Hassan & Birungi, 2011)

- Impact on household welfare comparable to human capital (education)

- \*\*Data gap:\*\* Limited information on whether trust/networks are increasing or decreasing

\*\*Land Tenure Challenges:\*\*

Weak formal institutions protecting land rights of the poor:

- Powerful/wealthy actors often override formal laws

- Ignore customary land tenure and national laws

- Poorest rural citizens face severe challenges:

- High costs to process land tenure certificates/titles

- Difficulty securing compensation for sold/stolen land

- Poor protection from illegal evictions

\*\*Key Citations:\*\*

1. Transparency International. 2015. "People and Corruption: Africa Survey 2015."

2. Tangri & Mwenda. 2006. "Politics, donors and the ineffectiveness of anti-corruption institutions in Uganda." \*Journal of Modern African Studies\* 44(1):101-124.

3. Hassan & Birungi. 2011. "Social capital and poverty in Uganda." \*Development Southern Africa\* 28(1):19-37.

4. Tumushabe & Tatwangire. 2017. "Understanding changing land access issues for rural poor in Uganda." International Institute for Environment and Development.

### 4.5 Knowledge Capital: Research, Innovation

\*\*Higher Education Context:\*\*

African higher education faces dual challenges (Teferra & Altbach, 2004):

- Increasingly high demand for access

- Low capacity and funding

As of 2004, the entire African continent (54 countries) had no more than 300 universities—the least developed region for higher education capacity. Yet higher education is recognized as key for development, enabling local capacity to participate in national, regional, and global knowledge/innovation systems.

\*\*Uganda's Progress:\*\*

Uganda has performed relatively well in supporting universities and research capacity:

- Expanded public universities

- Created private universities (students pay) to meet demand

\*\*Enrollment Challenges:\*\*

- \*\*Tertiary gross enrollment ratio (2000):\*\* 3%

- Below sub-Saharan Africa: 3.6%

- Far below Europe and Central Asia: 43.7%

- \*\*Inequality in access:\*\*

- Highest income group (<1% of population): 42% of places at Uganda's best university (Makerere University, 2004)

- \*\*Gender disparity:\*\* Men disproportionately represented, though improving

- Women at Makerere: 27% (1990) → 34% (2003)

\*\*Research & Development:\*\*

Aggregate R&D statistics difficult to obtain. Notable progress in agriculture:

- \*\*1995-2008:\*\* Public sector spending on agriculture R&D quadrupled

- \*\*Results:\*\* Significant new knowledge capital

- Improved seed varieties

- Genetically modified crops (GMOs) specific to Ugandan systems

- \*\*Controversy:\*\* Biosafety bill to commercialize GM crops controversial

- Some NGOs (including foreign-funded) advocate against legalizing GM crops

\*\*Key Citations:\*\*

1. Teferra and Altbach. 2004. "African Higher Education: Challenges for the 21st Century." \*Higher Education\*.

2. Liang, X. 2004. "Uganda Tertiary Education Sector Report." The World Bank; African Human Development Working Paper Series 32807.

3. Flaherty et al. 2010. "Uganda: Recent Developments in Agricultural Research." ASTI-NARO Country Note.

4. Wafula & Clark. 2005. "Science and Governance of Modern Biotechnology in Sub-Saharan Africa—The Case of Uganda." \*Journal of International Development\* 17:679-694.

5. Ongu, I. 2017. "Uganda's Parliament to reconsider long-stalled 'GMO bill'." Alliance for Science, Cornell.

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## 5. Social-Environmental System Dynamics

### The Challenge

The most complicated challenge in sustainable development is understanding the complex social-environmental system (SES) linking the productive base (capital asset stocks) to improved human well-being. This complexity exceeds the challenges of:

- Measuring well-being indicators (though not easy)

- Accounting for assets in the productive base (though data remains limited)

### Importance

Too many development projects fail because implementers fail to understand on-the-ground realities and complexities that influence multiple outcomes of any intervention. Effective policy work requires serious reflection on:

- Intended intervention outcomes

- Likely obstacles and barriers

- Probable unintended effects

### Recommended Resources

The following sources provide insights into Uganda's complex SES dynamics:

1. Robinson, M. 2006. "The Political Economy of Governance Reforms in Uganda." IDS Discussion Paper 286.

2. World Bank Group. 2017. "The World Bank in Uganda."

3. Ministry of Agriculture, Animal Industry and Fisheries. 2016. "Agriculture Sector Strategic Plan." The Republic of Uganda.

4. Ellis, F. 2003. "Livelihoods and Rural Poverty Reduction in Uganda." \*World Development\* 31(6):997-1013.

5. Hickey, S. 2005. "The Politics of Staying Poor: Exploring the Political Space for Poverty Reduction in Uganda." \*World Development\* 33(6):995-1009.

6. Oxfam. 2017. "Who is Growing: Ending Inequality in Uganda."

7. Sekitoleko, Victoria. 2015. "Why your skills are best suited for agri-business." TEDx Talk.

8. Pilling, D. 2017. "How the world's biggest refugee settlement sprang up in Uganda." \*Financial Times\*.

9. Schlitz & Titeca. 2017. "Is Uganda really a 'refugee paradise'?" \*AlJazeera\*.

10. Technoserve. "Uganda Overview" - A reputable NGO working to "build competitive farms, businesses and Industries" in developing countries.

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## 6. Conducting Expert Interviews

### Value of Expert Interviews

Expert interviews are particularly effective tools for:

- Developing a sense of regional complexities

- Ensuring recommendations are nuanced and respectful of local context and history

### Identifying Experts

Experts can come from any sector:

- Business

- Government

- Non-governmental organizations (NGOs)

- Academia

- Journalism

### Interview Guidelines

\*\*Preparation:\*\*

- Identify experts whose expertise aligns with your research questions

- Research the expert's background and work

- Prepare thoughtful questions in advance

- Consider what specific insights this expert can uniquely provide

\*\*Logistics:\*\*

- Request interviews early to facilitate scheduling

- Be flexible with timing and format (Skype, Zoom, phone, email)

- Use technology the interviewee is comfortable with

- 15-20 minute interviews can yield valuable insights

\*\*Conducting Interviews:\*\*

- 2-3 participants optimal for interviews

- All team members should contribute to question development

- Those attending should take high-quality notes for others

- Listen actively and ask follow-up questions

- Respect the expert's time

\*\*Reaching Out:\*\*

Craft professional emails:

- Introduce yourself and your project

- Explain why their expertise is relevant

- Clearly state your request (interview length, timing)

- Express appreciation for their consideration

- Offer flexibility on scheduling

You may be surprised how many people—even those highly prominent in their fields—will spend 15-20 minutes sharing knowledge when approached with a polite, informed request.

### Critical Perspective

Remember: All experts have particular expertise and lenses through which they view opportunities and challenges. Your job is to:

- Synthesize information from multiple expert interviews

- Integrate expert insights with broader research

- Critically evaluate expert perspectives within the wider context

- Identify areas of consensus and disagreement among experts

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## Conclusion

This research guide provides a foundation for understanding Uganda's pursuit of sustainability. The challenge ahead is to:

1. \*\*Build on this foundation\*\* through extensive additional research

2. \*\*Understand complexities\*\* of the social-environmental system

3. \*\*Critically evaluate\*\* how capital asset stocks generate (or fail to generate) improved human well-being

4. \*\*Identify opportunities and obstacles\*\* for sustainable development

5. \*\*Develop nuanced, context-appropriate recommendations\*\* that account for Uganda's unique history, current conditions, and future aspirations

The pursuit of sustainability in Uganda—as anywhere—requires integrating general principles with specific local knowledge to provide useful guidance for action on the ground. This guide is your starting point for that integration.