



Environmental and Social Review Summary

Chobe Agrivision Company Ltd.

This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed prior to the date on which MIGA's Board of Directors considers the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA's activities. This document should not be construed as presuming the outcome of the decision by MIGA's Board of Directors. Board dates are estimates only.

Any documentation that is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country:	Zambia
Sector:	Agribusiness
Project Enterprise:	Chobe Agrivision Company Ltd (Somawhe Estates)
Environmental Category:	B
Date ESRS Disclosed:	May 22, 2013
Status:	Due Diligence

A. Project Description

MIGA entered into a Master Contract (MC) in May 2010 with Chayton Africa, (CA) of Mauritius, (formally Chayton Atlas Investments) to support agribusiness investments into existing farming operations in Zambia and Botswana. CA has recently made an equity investment in Chobe Agrivision Company Ltd (Chobe) to acquire a farm - Somawhe Estates ("Somawhe") which is located in the the Mpongwe Farm Block in the Copperbelt Province of Zambia. Capital expenditures are planned for operations and improvements, including the expansion of irrigation systems. The acquisition of Somawhe Estates represents the third investment project to be underwritten under the MC, the first being the farms of Whispering Hope and Parklands and the second being the farms of Amasenga in Zambia. Please see link to ESRS for the [first](#) and [second](#) investments.

Somawhe, an existing commercial arable farm growing wheat, soya and maize, of some 12,822ha, (2,611 ha under irrigation) is situated in the south-west part of Mpongwe, 120 kilometers (km) south west of the city of Ndola 40 km to the west of Mpongwe, which is the nearest administrative center and 350 km north of Lusaka. The Munkumpu Farm Block (now Mpongwe Farm Block) was established in the late 1970s. The farm was initially owned by the Government of the Republic of Zambia, through Mulungushi Investments Limited, which was a division of Zambian Consolidate Copper Mines Limited ("Z.C.C.M"). Under the Z.C.C.M, the farm underwent its metamorphosis from bush land to arable land between March 1984 and May 1985. Land clearing and field preparations commenced in 1984. A dam and canal were completed in 1986. Thereafter it was parceled as part of four farms in Mpongwe district and bought by the Commonwealth Development Corporation (CDC). In 2006, The Danish Africa

Development Company A/S, who had a 65% shareholding, and The Industrial Fund for Developing Countries, (“IFU”) who owned a 35% shareholding, formed Somawhe Estates Limited and took over one of the four farms, Munkumpu Farm and changed its name to Somawhe (SOya MAize WHeat).

CA has gained water rights that allow Somawhe to extract water from the Ipumbu River, and there are plans to invest additional capex to increase the land under irrigation by an additional 1,800ha to 4,411ha. According to CA’s consultants, the dam located within the boundaries of the farm, has a 38.7 million cubic meter capacity and irrigation potential of up to 3,800ha. However, a night storage dam will also be constructed to facilitate irrigation of the proposed extension. Somawhe has produced in excess of 27,000 tons of wheat, soya and maize annually over the last 5 years, and has maintained reliable, long-term off-take agreements with milling companies in the Zambian Copperbelt. As with the Whispering Hope, Parklands and Amasenga operations, all of the crops are intended for consumption within Zambia.

CA has requested MIGA guarantees for its shareholder loan to and/or equity investment in Chobe (or its subsidiaries) against the risks of Transfer Restriction, Expropriation, War & Civil Disturbance and Breach of Contract. MIGA’s gross and net exposures will be up to US\$46 million.

B. Environmental and Social Categorization

This project is categorized B under MIGA’s Policy on Social and Environmental Sustainability, because the potential social and environmental impacts are limited, few in number, site-specific, largely reversible and readily addressed through mitigation measures. The expected risks and impacts are related to liquid and solid wastes, soil compaction and erosion due to the use of heavy machinery; agro chemical storage and use; and social issues related to workers health and safety and community health and safety related to increased traffic and the use of security guards. Water user rights will also be assessed as the farm intends to expand its crops under irrigation.

C. Applicable Standards

While all Performance Standards are applicable, based on our current information it is expected that the investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- Performance Standard 1: Social and Environmental Assessment and Management System
- Performance Standard 2: Labor and Working Conditions
- Performance Standard 3: Pollution Prevention and Abatement
- Performance Standard 4: Community Health, Safety and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement
- Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management

The project is not expected to trigger PS 7. PS8: Cultural Heritage is not triggered except for the need to implement “chance finds” procedures.

In addition, the following World Bank Group Environmental, Health and Safety (EHS) Guidelines are applicable to this project:

- World Bank Group General EHS Guidelines
- World Bank Group Industry Sector EHS Guidelines for Annual Crop Production

D. Key Documents and Scope of MIGA Review

A MIGA Social and Environmental (S&E) specialist visited the project site in February 2012 and met with project staff and management. In addition to the site visit, and other communication with the project and sponsor, MIGA has reviewed the following documents:

- Environmental Impact Statement Report – Somawhe Estates, Moingwe, 2012, Envsol Consult
- Chobe Agrivision Ltd Workplace Health and Safety Policy Statement, February 2011
- Chobe Agrivision Ltd Environmental Policy Statement, March 2011
- Chayton Africa: Response to Questions on EIS December 2011
- Chobe Agrivision Ltd Recruitment Policy and Procedure, April 2011
- Chobe Agrivision Ltd Human Resources Policy and Procedures Manual (January 2012)
- Chobe Agrivision Ltd Conservation Activity Manual, including: Nutrient Management Plan; Woodland Management Plan; Irrigation Water Management Plan and Pest Management Plan, March 2011
- Chobe Agrivision Ltd Traffic Management Plan, March 2011
- Chobe Agrivision Ltd Occupational Health and Safety Procedures, March 2011
- Chobe Agrivision Ltd Emergency Preparedness and Response Plan, March 2011

E. Key Issues and Mitigation

PS1: Social and Environmental Assessment and Management Systems

For this specific project an Environmental Impact Statement (EIS) including an Environmental and Social Management and Monitoring plan (ESMMP) was completed. Once instructions have been provided by the Zambian Environmental Management Agency (ZEMA), the EIS will be submitted for approval which is expected in the coming months. An EIS is required for land clearing for large agricultural developments and for irrigation developments exceeding 50ha in order to comply with host country requirements¹.

Chobe has developed an environmental policy and a worker health and safety policy to guide its agricultural investments in Zambia, including its investment in Somawhe estates. As part of its Social and Environmental Management System (SEMS), Chobe developed the following manuals/plans.

- Conservation Activity Manual, including: Nutrient Management Plan; Woodland Management Plan; Irrigation Water Management Plan and Pest Management Plan

¹ The Second Schedule, Section 6 of the Environmental Impact Assessment Regulations of 1997, as recently reformulated under the Environmental Management Act of 2011 to replace the Environmental Protection and Pollution Control Act of 1990 and 1999 demands an environmental impact assessment (EIA)

- Traffic Management Plan
- Human Resources Policy and Procedures Manual including Employee Grievance Mechanism 3rd January, 2012
- Occupational Health and Safety Procedures
- Emergency Preparedness and Response plan (EPR)
- Community Grievance Mechanism

A set of key indicators to monitor and evaluate potential adverse social and environmental project impacts has been developed. Annual monitoring reports will be submitted to MIGA, ZEMA and Chayton Atlas. Quarterly lender reports are prepared by the Chayton Africa office with input by the farm managers. The on-site farm manager is responsible for coordinating the activities associated with the development of the environmental and social programs. The farm management along with Chobe's Zambian country manager are responsible for setting targets for the ESMMP and for identifying programs that support the objectives of the plan along with adequate budgets. The on-site farm managers, Environmental Health and Safety officer and Human Resources officer are familiar with the provisions of the ESMMP, committed to its implementation and will receive clear guidance and training as necessary from Chobe and Chayton senior management who have experience from managing Whispering Hope, Parklands and Amasenga in line with the Performance Standards.

An extensive training program is in place in the following areas: irrigation; chemical handling and spraying; electricians; health and safety; HR; driving and management. Further training programs will be developed as the company continues to expand operations.

PS2: Labor and Working Conditions

The farm currently employs 155 permanent staff, including nine female and temporarily employs 215 staff, including 16 female. Nine managers are employed, including six international and two female. Once the 3,000 ha land clearing begins and irrigation systems are being installed, the farm is expected to employ an extra 150 staff, including 50 permanent and 100 temporary. It is anticipated that wages and benefits will be above the national minimum and no lower than sector or countrywide commercial standards. A human resources manual consistent with the national law and PS2 has been developed and submitted to MIGA and covers areas such as recruitment and selection policy; retrenchment policy and procedure and the grievance procedure. Contractors will also be obliged to comply with Chobe's HR manual and OHS policy.

The farm will be operated according to international good practice in terms of safety, working conditions and other relevant aspects. Appropriate Personal Protective Equipment (PPE) is provided to all staff including contractors. Training is provided prior to each spray season to train staff on chemical handling, application and disposal. An Emergency Preparedness and Response (EPR) plan has been developed and implemented for life and fire safety, and hazardous spills or accidents. Occupational Health and Safety (OHS) guidelines have been developed to include all operations on the farm and address risks related to pesticide and fertilizer handling (including chronic exposure), heavy machinery operations, confined spaces such as grain silos, etc. The company has also implemented an accident and incident reporting system which is managed by the administration office and senior managers. Along with these, the ESMMP includes measures to mitigate potential health and safety impacts during operations and land clearing.

PS3: Pollution Prevention and Abatement

The ESMMP includes measures to mitigate potential pollution of soil, surface water and ground water related to liquid waste, pesticides, fertilizer usage and irrigation, as well as solid waste management, and air pollution management.

Liquid waste management

All support services for the new acquisition including refueling vehicles, fuel storage, vehicle washing site, vehicle maintenance, etc. are performed at a central location on the farm. The designated vehicle washing area is in a suitable location with an adequate collection, separation and drainage system. Fuel is delivered to the farm by a licensed third party. Diesel fuel is stored in a tank located in a designated fuel store room with secondary containment. Used oil is collected by a licensed third party. A backup generator is housed in a separate facility with appropriate ventilation in place and access is restricted to dedicated personnel. The EPR plan provides details of how to respond to an accident, spillage and emergency situation and spill kits are being purchased. Sewage is collected in septic tanks that adequately soak away from the farm and staff accommodations use pit latrines, some of which are efficient eco-toilet which reduce smell and the need to be emptied so frequently.

Solid waste management

The current solid waste management arrangements at the farm are inadequate and will be improved. Glass bottles will be recycled. Chemical containers are triple rinsed, punctured and buried where this does not present risks to people or the environment and in line with EHS and Food and Agriculture Organisation guidelines. Chobe is investigating if it is possible to return empty containers to the supplier as approximately 3,000 are used each year. Consumables such as used fertilizer sacks, oil filters and used protective clothing will be incinerated in a ZEMA approved incinerator with the remains transferred to a designated refuse pit. A designated site is available as a storage area for scrap parts.

Hazardous materials management

An integrated pest management plan has been developed. Only World Health Organisation (WHO) approved chemicals are being used. Agro-chemicals are stored in a central location, which is locked and has adequate signage, and inventory is tracked. Staff are trained before each spraying season and are provided appropriate protective clothing. Regular bore hole testing is carried out to ensure there are no signs of pollutants and water filters are being installed where necessary to ensure the water meets WHO standards for potable water. The use of zero tillage cultivation techniques, integrated pest management, crop rotation systems and the use of pest-resistant crop varieties, should reduce the need to use excessive amounts of agrochemicals and hence reduce the risk of potential pollution. Medical waste from the on farm clinic is collected and transferred to a registered medical waste disposal facility.

Soil erosion

Soil erosion is being minimized with the use of the zero tillage cultivation technique which involves maintaining ground cover, no ploughing and the use of direct drilling and targeted fertilizer applications. As the ground is continuously covered, the loss of soil during rain fall and irrigation is minimized.

Water use efficiency

Water availability in the dry season is managed through the use of the on-site large dam. One night storage dam will be constructed on the farm in line with international good practices for EHS and OHS. A separate EIA will be developed and submitted to ZEMA and MIGA for review and as supporting documents for the application for the necessary permits once details of size, location, type, etc. are developed. Estimated water needs for anticipated crop yields are in line with EHS guidelines, including current cropping and future expansion.

Air and noise pollution

Air emissions from farm machinery are negligible as farm machinery is new and well maintained however emissions will be managed in line with the EHS Guidelines. During land clearing, water sprinkling will take place in order to reduce dust.

PS4: Community Health, Safety & Security

The farm is located within the Mpongwe farming block and away from any towns or villages. There are a number of workers houses (132) situated on the farm land for all permanent employees as follows: 68 (Kanyuma), 30 (Munsonshi), 15 (Workshop), 13 (TAP), 4 (Kalimba) and 2 (Kabasha). Chobe is in the process of improving the houses, by installing new windows, kitchens, toilets and shower blocks. Two schools are located on the farm for workers children. Supplies are provided and the teachers are paid by Chobe.

A Traffic Management Plan guides staff on safety and security when operating machinery in order to avoid accidents on site. Fencing is erected around the perimeter of the property, and unarmed security guards are stationed at the main entrances. Signage will be placed around the dams to advise of deep water and that no swimming is allowed. The existing large dam has been designed in line with international standards and considering a catastrophic flood event. No communities are living in direct path of the dam in case the wall breaches and an Emergency Response Plan is in place.

Two clinics are located on the farm and are open to the community and their families. The clinics are managed by qualified health workers. Malaria testing can be carried out here as well as treatment for other common diseases such as diarrhea and respiratory diseases. Drugs are provided free of charge.

PS 5: Land Acquisition and Involuntary Resettlement

Under the ownership of Mpongwe Development Company sections of land were ceded to the north east of the property in 2005/6 to local villagers. One small community of Kasambanyambi to the east of the property and close to the entrance of the Ipumbu river to the Ipumbu Dam was not part of this agreement. The Mpongwe Development Company (owners of the estate in the 90's) brought a court order in 2003/4 against this village to have them removed, however, the previous owners of Somawhe Estates decided not to pursue this court and instead chose to leave the Kasambanyambi community in place. Chobe will engage with the community through local leadership and formalize this arrangement and demarcate the land area to prevent encroachment of this community.

PS 6: Biodiversity Conservation and Sustainable Natural Resources Management

A flora and fauna biodiversity assessment was carried out between April and May 2012, and included field surveys and a desk review of documents provided by the farm. The survey identified various land types with the most prominent being miombo and termitaria. There are also some dambos on the farm and riparian forests which occur along the river banks. Much of the vegetation has been cleared; however, there are large patches of undisturbed miombo left between the fields which provide an ecological corridor and links to the riparian forests. A larger area of undisturbed miombo woodland exists in the north east of the farm which supports a number of fauna species and is protected. This is impenetrable and there are no commercial activities or roads of any sort in this area. There are a number of wetlands within and around Somawhe which have been subjected to limited disturbance and none are classified as Ramsar sites. There are some flora species classified on the IUCN red list or CITES lists as “Species of Special Concern (SSC), which classifies species with new records or limited distribution. These include: *Nymphphaea divaricata*, *Oeceoclades saundersiana*, *Anthocleista vogelii* and *Aloe zebrina*. Approximately eighteen mammal species were identified on the farm, including duiker, bushbuck and large numbers of monkeys and mongoose. Nearly all are classified as Least Concern on the IUCN red list. Approximately nine reptiles were observed on the farm, but none are listed on the IUCN red list.

The Environmental Protection Unit (EPU), managed by the farm manager, has the responsibility for protecting the wildlife within the farm. There are 8 employees – one supervisor, one assistant supervisor and 6 scouts. They are registered honorary Zambia Wildlife (ZAWA) Officers and their duties include daily patrols around the farm checking for tree cutting/snares/poachers with dogs etc. They also enforce the 3 month fishing ban on the dam Dec/Jan/Feb. The unit works in close collaboration with the ZAWA and at times conduct joint patrols. The Conservation Activity Manual, including: Nutrient Management Plan; Woodland Management Plan; Irrigation Water Management Plan and Pest Management Plan guide their operations and ensures biodiversity is managed appropriately on the farm. It has been noticed by all stakeholders that biodiversity such as fish, birds and mammals has increased since the EPU began operating.

F. Environmental Permitting Process and Community Engagement

For this project an Environmental Impact Statement (EIS) including an Environmental and Social Management and Monitoring plan (ESMMP) was completed. Once instructions have been provided by ZEMA, the EIS will be submitted for approval which is expected in the coming months. An EIS is required for land clearing for large agricultural developments and for irrigation developments exceeding 50ha in order to comply with host country requirements².

Public consultation and community engagement has taken place to discuss the details of the project and the impacts on the local community through the EIS process. A meeting was held on 3rd May 2012 with the chief of Kasambanyambi village which is located to the south corner of the dam where the Ipumbu river flows into the dam. The community raised concerns regarding

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the following: (i) The concern over not having full access to the dam for fishing, (ii) The concern over not being allowed to cut trees within the farm, (iii) The concern with not being able to cut through farm land to access villages across the Impumbu stream.

In response to concerns under (i) above, Chobe has restricted fishing to just half of the dam in order to allow fish stocks to recover. There is also a three month fishing ban during fish breeding. In response to (ii) above, Chobe has placed a ban on the cutting of trees on their land in order to preserve and enhance biodiversity on the farm. In response to (iii) Chobe allow the communities to cut through the farm, with the exception of the road over the dam wall where access is prohibited for security reasons. These arrangements will be monitored on a regular basis.

A grievance mechanism is in place for community members to discuss issues with management. This is done via a formal process whereby a grievance application form can be completed and submitted to HR or senior management. Items are dealt with at Chobe's monthly executive meetings which includes Chobe and Chayton senior management and investigations will take place for any grievance reposted.

G. Availability of Documentation

The following documentation is available electronically as PDF attachments to this ESRS at www.MIGA.org, <http://www.chaytonafrica.com>, local administrative offices and Chobe farm offices.

- [Environmental Impact Statement Report](#) (including Environmental and Social Management and Monitoring plan – ESMMP), 2012

The Corporate Social Responsibility policies of Chobe can be made available upon request to Jaco Wasserfall at Chayton Capital, Jaco.Wasserfall@Chaytonafrica.com