

Report

Zambia Wheat GMAP

Methodology

GMAP provides an early and high-level country and commodity-level evaluation of environmental and social risks associated with agro—commodity primary production. The criteria and indicators align with the IFC 2012 Performance Standards on Environmental and Social Sustainability, in particular the supply chain-related requirements of Performance Standard 2 and Performance Standard 6.



PS2

Performance Standard 2

Labor and Working Conditions



PS6

Performance Standard 6

Biodiversity Conservation and Sustainable Natural Resource Management

Risk Matrix

The methodology uses a traditional risk matrix to quantify production risk. A risk score for each indicator is derived from a combination of two factors

1

Probability of an occurrence

2

Severity of impact

Score Summary

Labor and Working Conditions

Use of harmful child labor	84
Laws related to child labor	88
Use of forced labor	92
Laws related to forced labor	92
Conditions of production	32
Laws related to the protection of workers from significant safety issues	88

Biodiversity Conservation and Sustainable Natural Resource Management

Rate of expansion into natural areas	88
Impact on protected areas	52
Presence and impact on high or unique freshwater biodiversity	68
Presence and impact on high or unique terrestrial biodiversity	88

Analysis Data

Labor and Working Conditions

84

1.1 CHILD LABOR

Use of harmful child labor

What is the extent of harmful child labor use in commodity production?

Child labor in Zambia is a problem in agriculture and farming where children under 15 are often employed. Because education is not compulsory many children are often instead forced to work. More than 92% of child labor occurs in the agricultural sector. According to the United State Department of Labor a list of good produced by child labor in Zambia include: Cattle, Cotton, Gems, Stones, and Tobacco. It is not unreasonable to rule out Wheat production based on proximal trends and market overlap.

References

- *U.S. Department of State. "Zambia 2016 Human Rights Report", 2016. https://www.state.gov/documents/organization/265528.pdf*
- *United States Deportment of Labor. "List of Goods Produced by Child Labor or Forced Labor", 2016. https://www.dol.gov/ilab/reports/child-labor/list-of-goods/*

88

1.2 CHILD LABOR

Laws related to child labor

To what extent do the laws of the country protect the rights of children in commodity production?

Zambia has ratified both the Minimum Age and Worst Forms of Child Labor Conventions. Law prohibits children under the age of 15 to work and there are restrictions to labor that is hazardous or which interferes with children's education. Also, the Zambian National Service runs state farms for displaced children and those that are orphaned and contributes to the problem of child labor. Although there are formal laws and regulations, the Ministry of Labor and Social Security has not effectively enforced these laws outside of the industrial sector.

References

- *Information System on International Labour Standards: NORMLEX. C138 - Minimum Age Convention, 1973 (No. 138) http://www.ilo.org/*
- *US Department of State. "Country Reports on Human Rights Practices for 2016: Zambia." https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#wrapper*
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92

1.3 FORCED LABOR

Use of forced labor

To what extent is production of the commodity associated with forced labor in the country?

Forced labor may occur in the agricultural sector, but because the government lacks necessary resources to investigate more organized trafficking operations, it is harder to prosecute offenders. Both women and children frequently faced subjection to forced labor; orphans were especially vulnerable. Industries that experience the most use of forced labor include: agricultural, textile, construction, mining, hospitality, and small business. This also includes sex trafficking from neighboring countries. Zambia is listed as a Tier 2 watch list by the US Department of State Trafficking Persons report from 2017 because the nation "does not fully meet the minimum standards for elimination of trafficking."

References

- *U.S. Department of State. "Zambia 2016 Human Rights Report", 2016. https://www.state.gov/documents/organization/265528.pdf*
- *U.S. Department of State. "Trafficking in Persons Report", 2017. https://www.state.gov/documents/organization/271345.pdf*

1.4 FORCED LABOR

Laws related to forced labor

To what extent do the laws of the country prevent the exploitation of forced labor in commodity production?

Zambia has ratified the Abolition of Forced Labour Convention 1957 (No. 105) and the Forced Labour Convention 1930 (No. 29)., Zambian law explicitly prohibits all forms of forced and compulsory labor, although there is insufficient evidence to determine whether penalties for violations (25 to 35 years of imprisonment) are enough to deter offenders. In 2016 there were no convictions for forced labor and it is thought that the government may not have been effectively enforcing the law. As of 2017, the country had not reviewed or updated the national action plan to combat trafficking, which expired in 2015.,

References

- *International Labor Organization. 2015. "Ratifications of ILO Conventions: Ratifications by Convention - Abolition of Forced Labour Convention, 1957 (No. 105)." http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312250:NO.*
- *International Labor Organization. 2015. "Ratifications of ILO Conventions: Ratifications by Convention - Forced Labour Convention, 1930 (No. 29)." http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312174:NO.*
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- *U.S. Department of State. "Trafficking in Persons Report", 2017. https://www.state.gov/documents/organization/271345.pdf*

1.5 SIGNIFICANT SAFETY ISSUES

Conditions of production

To what extent do workers in commodity production face physical and/or chemical occupational health and safety (OHS) hazards?

According to a study produced in 2013 that targeted exposure to occupational health hazards in Zambia, out of nearly 64,000 respondents, pesticides exposure was significantly low (3%). The agricultural sector employs about 75% of Zambian workers and it has been reported that almost a quarter of peasant farmers were reported to have had organophosphate poisoning., Most of Zambia's Wheat production however falls in the hands of mechanized commercialized farming and therefore reduces the amount of direct exposure to elements of physical and chemical hazards.

References

- *Siziya, S., E. Rudatsikira, A. Mweemba, G. Rachiotis, D. Mugala, K. Bowa, and A. S. Muula."Exposure to Occupational*

Health Hazards among Zambian Workers." 2013. Occupational Medicine 63 (2): 109–15. doi:10.1093/occmed/kqs201.

- *Magauzi, R., B. Mabaera, S. Rusakaniko, A. Chimusoro, N. Ndlovu, M. Tshimanga, G. Shambira, A. Chadambuka, and N. Gombe. 2011. "Health Effects of Agrochemicals among Farm Workers in Commercial Farms of Kwekwe District, Zimbabwe." Pan African Medical Journal: 9 (1). https://www.ajol.info/index.php/pamj/article/view/71201">https://www.ajol.info/index.php/pamj/article/view/71201*
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88

1.6 SIGNIFICANT SAFETY ISSUES

Laws related to the protection of workers from significant safety issues

To what extent do the laws of the country prevent workers from significant safety issues in the production of the commodity?

Zambia has ratified eight out of eight fundamental conventions and 36 of 177 technical conventions that pertain to safety, health, and workers' rights; per the International Labour Orgranization. As a part of the Stockholm Convention, Zambia has submitted a National Implementation Plan (NIP) for the management of Persistent Organic Pollutants (POPs) which include pollutants such as DDT, PCBs, Dioxins and Furans, and pesticides. The country still has not ratified the Safety and Health in Agriculture Convention (No. 184) however, since 2010 it has implemented the Occupational Health and Safety Act that establishes and institute that provides for the establishment of health and safety committees at workplaces and the protections against risks to health and safety arising from workplace conditions.

References

- *International Labour Organization. "Ratificaitons for Zambia", Accessed September 26, 2017. http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103264*
- *United Nations. 2015. "Status of Ratifications - Stockholm Convention on Persistent Organic Pollutants." Accessed August 7. http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatories/tabid/252/Default.aspx.*
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88

2.1 PROTECTION AND CONSERVATION OF BIODIVERSITY

Rate of expansion into natural areas

To what extent is production/harvest of the commodity expanding, and to what extent is that expansion into undeveloped areas?

In the decade from 2004 to 2014, Zambia's harvested area of wheat has fluctuated, first rising almost 209% before it took a 33% decline from 2013 to 2014. Production mainly occurs in the Central Province (49.5%), Lusaka (24%), the Copper Belt (14.3%), and the Southern Province (12.1%).(4) 2017 predictions for wheat in Zambia estimate that production will exceed average levels, topping out at nearly 3 million tons. Zambia is predominantly a woodland environment with over 60% of coverage area, but currently experiences an estimated 250,000 to 300,000 hectares deforested annually. While deforestation for wheat production alone is not readily documented, it is suggested that agricultural expansion and collection of firewood and charcoal are the main drivers. According to the UN that is a rate of loss equivalent to 7.9% since 1990, Zambia ranks 31st out of 204 for countries monitored by the Global Forest Watch.

References

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- *Zambia Data Portal. "Agriculture Statistics" 2014. Knoema. http://zambia.opendataforafrica.org//ionawve/agriculture-statistics?tsId=1000290.*
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- *United Nations Statistics Division. "Forest Area XLS." Environmental Indicators: Forests (Forest Area). UN, 2013. https://unstats.un.org/unsd/environment/excel_file_tables/2013/ForestArea.xlsx.*
- *"Global Forest Watch." 2017. http://www.globalforestwatch.org/.*

2.2 PROTECTION AND CONSERVATION OF BIODIVERSITY

Impact on protected areas

To what extent is commodity production negatively impacting designated protected areas and/or cultural heritage sites in the country?

Zambia is home to 635 IUCN sites that include Categories II, III, IV, and VI. Over 550 sites are deemed Forest Reserves, which could be threatened by the expansion of wheat production. According to PADDD (Protected Area Downgrading, Downsizing, and Degazettement) there have been four instances since 2012 of the loss of protection in Zambia; one specifically tied to industrial agriculture. There is ccurrently there is no direct evidence that supports the hypothesis that wheat is specifically or negatively impacting protected and cultural heritage sites in Zambia.

References

- *Protected Planet. UNEP/IUCN/WCMC. http://www.protectedplanet.net/.*
- *PADDDtracker. http://www.padddtracker.org/*

2.3 PROTECTION AND CONSERVATION OF BIODIVERSITY

Presence and impact on high or unique freshwater biodiversity

To what extent do areas of high or unique terrestrial biodiversity exist within or near the region of production and to what extent is the commodity known to negatively impact those areas?

There are six freshwater ecoregions in Zambia (Upper Zambezi Floodplains, Kafue, Middle Zambezi – Luangwa, Bangweulu – Mweru, Zambezian Headwaters, and portions of Lake Tanganyika, and Lake Malawi). Where the majority of wheat production occurs (the Central and Lusaka Provinces), freshwater species richness and endemism is considered low. However, there is a moderate presence of richness of amphibians. Wheat production uses the organophosphate chemicals to control for insects and other fungicides, herbicides, and pesticides were found in groundwater. According to the Water Risk Filter (WWF), the Central and Lusaka Provinces have lower levels of contamination risks. It should be noted that the Eastern Province, which carries a moderate amount of wheat production and borders the Lake Malawi ecoregion, is at risk for very high contamination.

References

- *Freshwater Ecoregions of the World. http://www.feow.org/*
- *Xu, Yongxin; Usher, Brent. "Groundwater Pollution in Africa", 2006. ISBN 10:92-807-2680-3*
- *"The Water Risk Filter." Accessed July 29, 2013. http://www.waterriskfilter.panda.org/Maps.aspx.*

Presence and impact on high or unique terrestrial biodiversity

To what extent do areas of high or unique freshwater biodiversity exist within or downstream of the region of production and to what extent is the commodity known to negatively impact those areas?

Zambia is one of the most biodiverse countries in the world in terms of its mammal life. Currently there are eight RAMSAR wetland sites, of which three overlap with areas with the highest wheat production, 42 Important Bird Areas where four of them are considered "In Danger", and four WWF priority terrestrial ecoregions (Central and Eastern Miombo Woodlands, Right Valley Lakes, Southern Rift Montane Woodlands, and Zambesian Flooded Savannas)., In particular, the Central and Eastern Miombo Woodands is considered a vulnerable region with high species richness and diversity of large mammals (Giraffes, Elands, Rhinos, and African Elephants). Since 2009 there have been 24 new bird species identified and 11 of them are considered endangered.

References

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- *Birdlife International. Important Bird Areas - Data Zone. http://www.birdlife.org/datazone/site/search*
- *Convention on Biological Diversity. "Country Profile - Zambia: Biological Diversity", Accessed September 26, 2017. https://www.cbd.int/countries/profile/default.shtml?country=zm#facts*