



Competition and Consumer Protection Commission

Barriers to Entry, exclusionary strategies, regulation and inclusive growth in the Forestry Sector in Zambia

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PART I

INTRODUCTION

1. Zambia is one of the most forested countries in Africa and approximately 67% (49,468,000 ha) of Zambia's land surface is covered by forest (FAO, 2011). With the vast and abundant endowment of natural resources and appropriate climatic and soil conditions, the Forestry and Wood Products sector offers the country potential for economic growth leading to increased job creation and the nations export earnings. Some studies have shown that the forestry sector has contributed up to 5.2% of GDP to the national economy¹. However, it has also been argued that the actual value of the forestry sector is likely to be higher than what is currently being accounted for (FAO, 2012 a&b) due to the inadequate accountability of the contribution of illegal or unregulated activities such as charcoal production.. The sector offers a reasonable alternative to the mining and agricultural sectors.
2. Presently Zambia's international trade is heavily reliant on mineral products with copper taking the centre stage. This heavy dependence on copper exports results in great sensitivity of the local economy to global commodity market prices and as such any global economic shocks greatly impact on the country's economy. Thus the Forestry and wood products industry offers the much needed potential for economic growth and development of a viable export based economy.
3. Timber and fuelwood constitute the most pronounced forest products due to the volumes involved and the central role they play in overall national development. Forests provide utility timber products, such as timber for the construction industry, furniture for households, transmission poles for the energy and communication sector, fuelwood for the tea industry and also for subsistence utilisation by

¹(Kokwe and Mickels-Kokwe, 2012).

the community as well as paper for the education and print media sectors.

Problem Statement

4. The challenges that have been faced in this sector are that, the forest reserves and plantations are finite resources therefore in the saw milling market where there have been multiple players who have tended to form associations to have more lobbying power have had a tendency to enter into agreements that foreclose the market. Due to the limited forest resources such agreements reserve the resources to a few players hence barring new entrants in the market. In addition, existing concession agreements that were signed by Government and private sector players gave a priority to the Concessioners at the expense of non-concessionary and new companies. Further the requirement by ZAFFICO for prospective players to first invest in machinery for saw milling before they can be granted a licence increases the start-up costs for potential entrants in the market.
5. This paper therefore seeks to look at the development of the forestry sector in Zambia and the emerging competition issues as well as the possible solutions to the emerging issues. The paper makes a comparison of competition issues in the plantations and forest reserves which are distinct markets by virtue of the product types and characteristics.

Types of Forests

6. Forests in Zambia are divided into 5 main categories: Forest Reserves, Plantations, National Parks, Game Management Area Forests, and Woodlands.

Plantation

7. Plantation forests in Zambia occupy approximately 55,000 hectares. These forests are comprised of predominately pine, eucalyptus and gmelina also called softwood. More than 50,000 hectares of these plantations are managed by the Zambia Forests and Forestry Industries Corporation (ZAFFICO) while the Forestry Department manages nearly 5,000 hectares. The primary business of ZAFFICO is to regenerate the exotic species and sale matured trees to the saw millers.

Forest Reserves

8. The Forestry Department has the responsibility of managing forest reserves which includes National and local forests which are mainly hardwood. Statistics show that 70 percent (5.18 million hectares) of the Forest Reserves are national while the remaining 2.22 million hectares are Local Reserves. These forests are further designated as either production or protection forests. Production forests are managed for timber and other forest products while protection forests are managed as conservation areas for environmental stability. The purpose of the National Reserves is for the security of forest resources of national importance, conservation of ecosystems and biological diversity, improved forest resource management, sustainable utilization of forest resources and management of major water catchments and headwaters. The purpose of the local Forest Reserves is nearly the same with a focus on the local communities.

Regulations and Regulators in the Forestry Sector

9. The national legal framework governing the forestry sector dates back to 1973, when the Forest Act of 1973 was repealed and replaced by the Forest Act of 1999, which was also repealed and replaced with the

Forest Act No.4 of 2015. In Zambia, *the ownership of all trees standing on, and all forest produce derived from, customary areas, National Forests, Local Forests, State Lands and open areas is vested in the President on behalf of the Republic, until lawfully transferred or assigned under the Forests Act or any other written law.*

10. The Forest Act is enforced by the Forestry department under the Ministry of Tourism, Environment and Natural Resources (MTENR). The Forestry Department is tasked with the protection of Zambia's forests and is required to enforce government regulations for the protection of forests and woodland areas as well as the training and deployment of forestry officers.
11. In addition to the Forestry Act, plantations are managed by ZAFFICO. ZAFFICO is a Government Parastatal incorporated under the Companies Act, Chapter 388 of the Laws of Zambia as a private Limited Company limited by shares. The Corporation is wholly owned by the Government of the Republic of Zambia through the Ministry of Finance and National Planning pursuant to the provisions of the Ministry of Finance (Incorporation) Act, Chapter 349 of the Laws of Zambia. The Minister of Finance therefore holds 99% shares and the Secretary to the treasury holds 1% shares as nominee, in compliance with the provisions of the Companies Act whereby shares in a private company are required to be held by not less than two shareholders².
12. The Zambia Forestry and Forest Industries Corporation (ZAFFICO) was established in 1982 as a result of the commercialization of the Industrial Plantations Department Division of the Zambia Forest Department. With a heavy focus on plantations, ZAFFICO was established in order to help meet the increasing demand for timber in Zambia and to complement supplies from indigenous forests which

²<http://www.zaffico.co.zm/index.php/2013-06-05-18-35-22>

were being overexploited³. In 1962, the Zambian government initiated large scale exotic plantations in response to the declining timber yield from natural forests. This large scale plantation programme was managed by Industrial Plantations Department which was then transformed into ZAFFICO in 1982. On its inception in 1982, ZAFFICO inherited 40,000 hectares of Pine, 10,000 ha of Eucalyptus and the processing units at Kafubu, Kalibu and Dola Hill⁴.

13. ZAFFICO privatized all of its processing capacity in 2002. This resulted in a proliferation of micro processing plants with a few interspersed medium sized ones. Kafubu Processing unit, a gum pole treatment plant, sawmilling and joinery operation based in Kalulushi was sold to Copperbelt Forestry Company (CFC) as was the Kalibu mill and wood processing operation (Zambia Review, 2010) and some forest plantations. The Dola Hill processing plant was sold to Wood Processing Industries. ZAFFICO further entered into concession agreements with the two firms which allowed them to obtain some of their softwood from the acquired plantations and some from ZAFFICO.
14. The Commission regulates both markets for forest reserves and plantations as its mandate extends to that of regulating competition in all markets in Zambia. Hence the two markets are also guided by the Competition and Consumer Protection Act No.24 of 2010.

³Assessment of the Constraints to the Development of the Forest and Wood Products Industry in Zambia, 2010.

⁴Zambia Review, 2010

PART II

Market Structure and Players in the Sector

15. The part focuses on the forest reserve market and the plantations market which deal in hardwood and softwood respectively. In most cases the market participants dealing in hardwood are different from those dealing in Softwood plantations mainly due to the difference in machinery used.
16. Other major factors include the fact that saw millers were set up in the area close to the plantation areas as wood was very expensive to transport and heavy. Hence it was noted that the majority of saw millers on the Copperbelt Province only used softwood supplied by ZAFFICO and indicated that they would not substitute for hardwood as it was found in remote areas such that if they factored in the cost of transportation they were better off purchasing the softwood even if it increased by 10%. As such only saw millers that were set up in the remote areas near the indigenous forest dealt in hardwood.
17. There are a number of players in both forest reserves market and plantations market. However, most players in the two markets have formed associations with exceptions of a few large players and some few small scale players. Some of the associations in the forest reserve market include Lumber Millers' Association of Zambia (LUMAZ) and Timber Producers Association of Zambia (TPAZ) and one of the largest companies is Zambezi Saw Mills. It should be noted that in the forest reserve market, only the Forestry Department was present in the upstream⁵ market and the associations and other companies only operated in the downstream⁶ market.
18. On the other hand, some of the associations in the plantations market include Zambia National Association for Saw Millers (ZNAS) and

⁵ Upstream market is where the raw material or input is sourced

⁶ Downstream market is the market that processes and sells to end users.

Copperbelt Saw Millers and Tree Growers Association and some of the major companies include Copperbelt Forestry Company (CFC) and Wood Processing Industries (WPI). In the plantations market there are three players in the upstream market and these include ZAFFICO, CFC and WPI. CFC and WPI also operate in the downstream market. The other players in the downstream market include associations and a number of other small scale saw millers.

Competition issues in the Forestry Reserves Market (Hardwood)

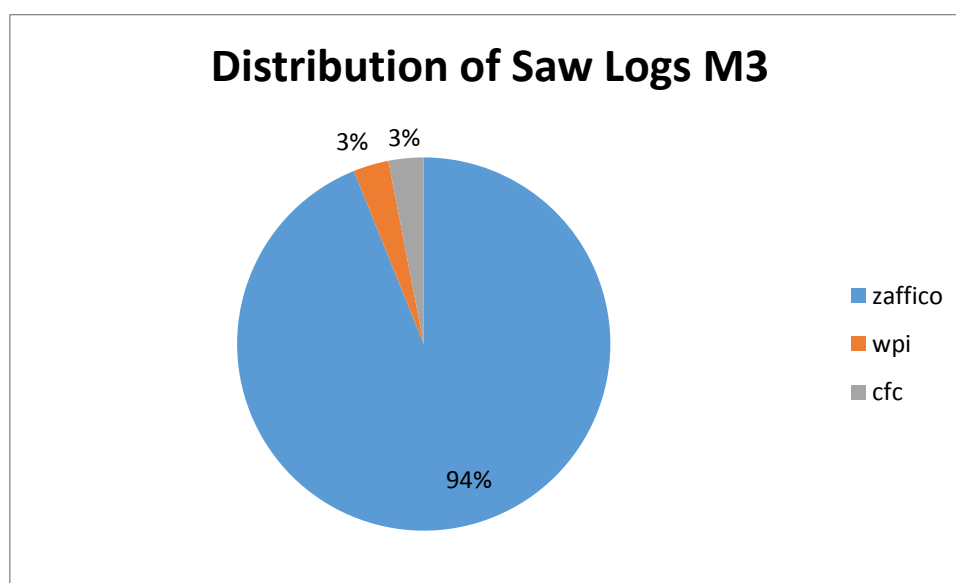
19. The market participant's main source of supply for their raw materials are forest reserves managed by the Department of Forestry and have no substitutes even though the law allows for private ownership of forests by licenced individuals and firms. Most market players in this market are in the downstream market operating as saw millers.
20. This poses a threat to substitutes of raw materials as firms rely on the capacity of the Forestry Department to replant or replenish the forests. This also implies that there is minimal competition and no internal rivalry in the upstream market.
21. In order to promote private sector participation in the upstream market a new law was enacted in 2015. The Forest Act No.4 of 2015, was assented to on 14th August, 2015 repealed the Forest Act of 1999 and was aimed at promoting private and community participation in the management of forest reserves and this has been noted from the clear guideline on the registration of private forests. Other provisions that have been included are those of Community Forest Management and joint forest management which would enhance sustainable forest management. The Forest Act of 2015 has further outlined some incentives in the registering of the private forest including technical and financial support. This move has particularly minimised the existing barriers to entry in this market and the promotion of private sector participation.

22. However, a prominent structural barrier to entry in this sector continues to be the number of years it takes for forests trees to mature which is about 20 to 25 years.

Competition issues in Forest Plantations (Softwood)

The Saw Log Market – Upstream Market

23. The main player in this market continues to be ZAFFICO which has the sole responsibility of managing and expanding the forest plantations. With the enactment of the Forest Act of 2015, private sector players were encouraged to participate in this sector. ZAFFICO remains a critical player in providing an essential facility for saw millers. This fact is evident from the existing statistics which indicate that ZAFFICO held about 7,730,740m³ (o.b) standing stock in the forest plantations as of November, 2011⁷. The main private sector players were CFC and Wood processing Industries (WPI) with 253,000m³ and 250,000m³ respectively of standing plantations. Important also to note is the fact that CFC and WPI are vertically integrated into the saw milling market hence their plantations are used by themselves.



⁷Forest Inventory of ZAFFICO plantations February, 2012, P. Ng'andwe, F.Njovu, E. Chisanga and R. Kasubuka.

Saw Milling Market – Downstream Market

24. Players in this market include ZNAS, CFC, WPI and many other small scale saw millers who are mainly located on the Copperbelt with a focus on softwood. Saw Milling in softwood became prominent immediately after ZAFFICO privatised its saw milling plants in 2002 which were sold to CFC and WPI. Prior to this ZAFFICO was vertically integrated and was involved in the management of forest plantations as well as saw milling. However the privatisation of the saw milling market opened the market for private sector participation and this saw the emergence of small scale saw millers in softwood. This saw the entrance of about 585 saw millers as of 2013⁸.
25. Saw millers dealing in softwood depend on acquiring forest plantations from ZAFFICO. In this case saw millers are concentrated in the downstream market with the few also operating in the upstream market..
26. While the number of saw millers continues to rise, there was only one source of raw materials of softwood with limited stock which was diminishing at a fast rate due to demand. It was particularly noted that the number of forest plantations had been decreasing from about 11,531,549m³ in 2007 of which pine was 9.3 million m³ and 2.2million m³ of Eucalyptus with a Mean Annual Increments of 9.5m³/ha/annum for pine and 7.4m³/ha/annum for Eucalyptus and an Annual Allowable Cut of 318,000m³ per annum of pine and which 71,824m³ was Eucalyptus and 1383m³ of Gmelia totalling to 391,706m³ Annual Allowable Cut per annum which was lower than the 510,000m³ a drop of 23%. It was further noted that there was a further reduction in standing tress in 2012 to 7,730,740m³ in November, 2011 with pine standing at 6.1million m³ and 1.6million m³ of Eucalyptus species with an Annual Allowable Cut of 228,268 m³ of

⁸Interviews with ZAFFICO

which 177,709 m³ was pine and 49,352 m³ was eucalyptus and 1009 m³ of Gmelia. It was noted that there was a further reduction in Mean Annual Increase to 4.3 m³/ha/annum and 6.7 m³/ha/annum⁹.

27. However, with the demand of softwood stood at 700,800 m³ while ZAFFICO was providing only about 377,767 m³ per annum as of 2013 implying there was a deficit of 323, 033 m³ for the existing saw millers.

28. The gap between the demand and supply was worsened by the existing concession agreements between ZAFFICO and the buyers of the saw milling business from ZAFFICO namely CFC and WPI. The concession agreements were such that the buyers ZAFFICO's saw milling plants were to receive priority in the allocation of softwood in addition to the plantations that they purchased. Not only did the buyers of ZAFFICO's saw milling business receive priority in accessing the raw material the agreement also included price reductions which were significantly lower than the market price.

29. The increased demand for the raw materials for saw millers led to exclusionary strategies by saw millers for softwood such as market foreclosure and denial of access to an essential facility by ZAFFICO. New entrants could not enter the saw milling market due to;

(I) The agreement that ZAFFICO and the associations entered into where it was decided that no new saw milling companies would be awarded licences until one of the existing members of the saw millers associations exited the market.

(II) The concession agreements which gave priority to the companies that bought the saw milling plant from ZAFFICO

⁹ Forest Inventory of ZAFFICO plantations February, 2012, and 2008, P. Ng'andwe, F.Njovu, E. Chisanga and R. Kasubuka

limited the amount of raw materials available to the other saw millers.

30. This was particularly noted in the complaint received by the Commission in 2013 in which new saw millers complained that two associations of saw millers namely the Zambia National Association of saw millers (ZNAS) with about 400 members and Copperbelt Forestry had lobbied ZAFFICO not to allow new saw millers from entering the market. The agreement was to run for three years and new entrants would only be allowed to enter if one of the existing saw millers left the market. The agreement was also essentially a cartel of competitors in the Association.
31. The potential impact on competition was that ZAFFICO was denying saw millers access to an essential facility and the same time ZAFFICO and the Associations foreclosed the market to potential saw millers. This would lead to reduced competition in the market. Further it could lead to increased prices for end users due to the high demand for the product.
32. The impact of the increased demand for the raw material led to the increase in the price of standing trees which also increased prices of final product.
33. The table below shows the price increments in the standing trees from 2009 to 2013.

Table 2: Prices of Standing Trees by ZAFFICO

Year	Price of standing tree Kwacha per cubic metre
2009	51.1
2010	104.295

2011	130.369
2012	153.375
2013	204.5

Source: Interviews with Saw Millers

34. The table below also shows the prices of timber to consumers from 2009 to 2013.

Table 3: Prices of Sawn Timber

Year	Approximate Prices of Sawn timber cubic metres
2009	28-32
2010	30-32
2011	30-32
2012	38
2013	42

Source: interviews with Customers and Saw Millers

35. The Commission further noted such an agreement came at a cost to potential saw millers. It was noted that prior to the agreement, ZAFFICO advertised through public media for interested saw milling licence applicants with stipulated conditions. The conditions included such applicants possessing a saw milling machine. As this was the trend over the years where potential saw millers had in anticipation bought saw milling machine expecting ZAFFICO to advertise for licences as there was no prior announcement that they would no longer be issuing licences. Potential saw millers who had invested in the machinery awaiting the licence advertisement were thus disadvantaged and at a loss due ZAFFICO and the Associations exclusive agreement.

36. Another barrier to entry was that saw logs take a long time (approximately 25) years to mature into harvestable logs for processing. Zambia is not short of suitable land for plantations. However, the long period in which it takes for the trees to mature appear to be the only barrier to entry into this sector. The main constraint has been the lack of expansion of the existing plantations and inadequate capacity to effectively manage the planted areas due to inadequate resources. This difficulty has further been compounded by the rapid rise in wood demand in the past five years which threatens to exceed the supply¹⁰.

Part III

Competition Reforms in the Industry

37. Because of these competition concerns and the need to instil competition recognising the potential of the industry, the Commission intervened. The interventions included the need for :ZAFFICO to come up with and implement a competitive process starting in the 2015 financial year of allocating the soft and hard wood licences for both existing and potential saw mill applicants other than foreclosing the market to potential entrants completely. The Commission further recommended that the companies that were left out at the time the market foreclosure started could be considered through a competitive bidding process that they would come up.
38. For the need to replenish the diminishing resources, the Commission urged Government through ZAFFICO come up with a deliberate policy for saw millers to be engaged in replanting trees in order to promote sustainable forest management.

¹⁰ <https://www.scribd.com/doc/33903203/7/Forestry-Timber>

Impact of Competition Reforms

39. The Commission has noted that the recommendations on promoting private sector participation has been dealt with in the Forest Act of 2015. Specifically the technical and financial support as well as a clear outline on how Government would collaborate with the community to manage and run community forests would ensure sustainable forest managements which was the case in other countries such as Ghana that had taken similar deliberate polies.
40. It was noted that through the intervention of the Commission, ZAFFICO has been able to come up with a competitive bidding process which provides for different licences for small scale saw millers and medium scale saw millers making it competitive. This has further increased the number of small scale saw millers by 450 (new entrants) with a trickle-down effect of increasing employment levels by 5,000 directly employed and 5 000 indirect jobs.

Conclusion

41. The Forestry and plantations market in the forestry sector have vast potential for growth and increased contribution to GDP as well as offers some of the best alternatives to diversification from Mining in Zambia. However, it is imperative that regulators monitor the sector closely to ensure sustainable forest management in the case of the Forestry Department. This is expected to reduce potential competition issues as has been noted in the past. The Commission notes that some steps have been taken in the newly enacted law and the new law has resolved some of the Commission's concerns as was noted in the investigations on ZAFFICO. This is expected to increase competition in both the upstream and downstream market.
42. It is evident that since the Commission's investigations in the plantations market, competition has continued to flourish leading o

positive impacts on the livelihoods of the people operating in this market as was noted from the additional jobs created.