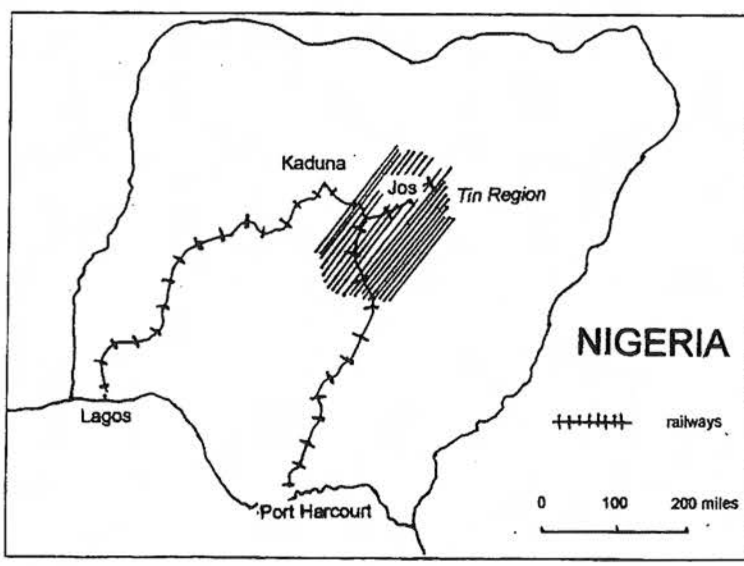
The Politics of Equity: Administering Tin Restriction in Nigeria, 1931-1933

John Hillman

The Nigerian tin industry faced a particularly difficult situation as prices declined sharply with the onset of the Depression in 1929. Salvation eventually came through the decision of the major producing countries - Bolivia, Malaya, Dutch East Indies, and Nigeria - to form the International Tin Committee (ITC) and cartelize the industry, imposing sufficiently severe levels of restriction to ensure that prices again became remunerative. Governments now faced a new set of responsibilities in regulating producers, allocating domestic quotas and generally ensuring that total exports did not exceed authorized levels. In spite of general support for the principle of cartelization, producers were anxious to secure for themselves the highest levels of production, and were quite prepared to exercise political pressure to do so. The administration of tin restriction was particularly complicated, especially in Nigeria, and the experience there reveals some of the major difficulties that emerged as competition between producers was translated from the economic to the political sphere.



THE DEVELOPMENT OF THE TIN INDUSTRY IN NIGERIA

The tin deposits of Nigeria are alluvial in origin and are concentrated in a comparatively small area on the Jos Plateau in the North. A local mining and smelting industry had flourished prior to the arrival of the Europeans, but it was not incorporated into the world market until a British Chartered Company, the Royal Niger Company (RNC) started buying tin metal in 1889.[1] Although the RNC was primarily interested in trade, it took care to acquire mineral rights in the treaties with the Northern rulers. When the British government decided to establish formal colonial rule in 1899, it bought out the mineral rights with the proviso that half of the royalties would be returned to the RNC. From 1902 to 1910 the region was thoroughly prospected and the results were so encouraging that 200 companies were floated on the London stock exchange by 1914. Among these early companies were three that continued to play an important role in the development of the minesfield over the next two decades: Naraguta (Nigeria), Bisichi Tin Company, and Kaduna Syndicate.

The existence of a large number of separate companies operating in a small area was a result of system of property rights codified in the Minerals Ordinance of 1910. Alluvial mining leases were granted for a term of 21 years, for a maximum area of 800 acres and carried the obligation to employ sufficient labor to "effectually and vigorously work" the concession.[2] At first, the tin-bearing deposits were of high quality and easy to extract, so production relied on comparatively simple, labor-intensive techniques, within an equally simple organizational framework. The companies contracted with gangs of African laborers, paying them by results in a system known as "tributing," and providing minimal supervision by European mining engineers.[3]

Although this system of primitive hand working continued for many years, the increase in demand for tin in the mid-1920s encouraged the introduction of new forms of production and organization. With ore deposits as much as 100 feet below the surface, mechanical excavation was required to remove increasing quantities of overburden.[4] Mechanization required cheap sources of energy and, given the location of the mines on the Jos Plateau, hydro-electricity proved to be the most economical. Fresh investment in mining was therefore matched by large-scale hydro-electric projects. At the same time, the government invested in the completion of the rail link from Jos to Port Harcourt which cut freight rates by one third.[5]

Output expanded rapidly. From 1921 to 1929 Nigeria's tin output more than doubled from 7,200 to 15,300 tons of tin ore, elevating the African nation to the world's fourth largest producer. However, the mining industry was not in a secure position. The new steam shovels proved to be very expensive to operate,[6] and construction of the hydro-electric projects proceeded slowly. A wave of consolidations, however, shored up the industry. Cantered on a comparatively new company, Associated Tin Mines of Nigeria (ATMN) which was linked to a large London mining finance house, Anglo-Oriental/London Tin under the leadership of John Howeson, the consolidations brought ample capital and stability to the Nigerian industry.

Anglo-Oriental was in the vanguard of technical modernization in other tin-producing countries. Already established in Burma, Australia, and Cornwall by the late 1920s, Anglo-Oriental was making inroads into Siam and Malaya, and it was the natural point around which consolidation occurred in Nigeria. With this enlarged production base, ATMN took over responsibility for the expansion and completion of a hydro-electric project at Kurra Falls in 1929. The same year saw a further tightening of Anglo-Oriental's grip as an affiliate, London Nigerian Tin Mines, acquired two other large companies to secure an adequate supply of tin concentrates for a newly constructed smelter in Britain.[7] Producing virtually nothing in Nigeria in 1926, Anglo-Oriental mined and processed 46 per cent of the nation's tin production by 1929.

The remaining tin interests can be broadly divided into four sectors: 1) another large group of companies formed around Herbert Latilla; 2) medium-sized companies; 3) small companies; 4) small independent miners. The Latilla group had originally developed Kurra Falls and retained some interest in the project after it had been taken over by ATMN, since the group's mining companies could use the power. As a result, the Latilla and Anglo-Oriental groups worked effectively together after 1928. Points of tension were to be found more with the medium-sized companies, such as Kaduna and Naraguta, which had been established with the opening of the minesfield in the 1910s and believed themselves to be its pioneer producers. The small independent miners enjoyed a symbiotic relationship with the large companies. Most had originally come to Nigeria as engineers in the service of existing companies, but, once there, they discovered opportunities to develop fresh properties and strike out alone.[8]

By the end of the 1920s, the Nigerian tin industry had become highly differentiated with a distinctive pattern of cleavages and tensions. Most sectors found the decline in price difficult to absorb. Medium-sized companies which had relied on labor tributing were now experiencing rising costs as a result of earlier, unsystematic techniques of extraction.[9] While the large mechanized companies were moving towards lower production costs, they had not achieved acceptable profit levels. Both the medium-sized and the large companies, therefore, reduced their scale of operations in response to falling prices throughout 1929 and 1930. These reductions aided the small companies and the independent miners who now had access to the laborers released by the larger companies. Since they also enjoyed generally lower production costs, they expanded their operations during the same period. Another dynamic emerged as a result of the ATMN's increased production capabilities in mid 1930 after the company completed the Kurra Falls hydro-electric project. As the small and the large expanded, the market share of the medium-sized companies inevitably declined. It was these divisions that would make it extraordinarily difficult for the Nigerian government to administer the restriction of production to levels required by the ITC.

The industry's organizational structure further complicated matters. Since the majority of the producers were London-based companies, the most important association was the Nigerian Chamber of Mines in London. In Nigeria itself, the Chamber organized a Local Council which brought together local managers to deal with local concerns including representation to the Nigerian government. However, it had no authority to deal with matters of policy without reference to its parent body in London. Two difficulties arose because of this structure: 1) the Nigerian government could not deal directly with a local organization with any authority and, 2) the organization could not speak on behalf of all mining interests, since it excluded the independent miners.

NIGERIA AND THE FORMATION OF THE INTERNATIONAL TIN COMMITTEE

The framework agreement for the formation of the ITC was accomplished in a meeting of industry leaders in November 1930. The industry realized the need for governmental intervention, following the failure of the various schemes promoted by the Tin Producers' Association (TPA) to promote voluntary restriction in the face of declining consumer demands and expansion in productive capacity during 1930.[10] The idea for the cartel was then presented to the governments of Bolivia, Dutch East Indies, Malaya, and Nigeria. It was to be a simple system of restriction, aiming to cut world production in 1931 to 26 per cent of its level in 1929, which in turn would mean a cut of 22 per cent from the four members of the ITC. This reduction was not much larger than that proposed by the TPA during 1930. It was expected that within two years the ITC would accomplish its objective of bringing production and consumption into equilibrium at which point it would be dissolved.

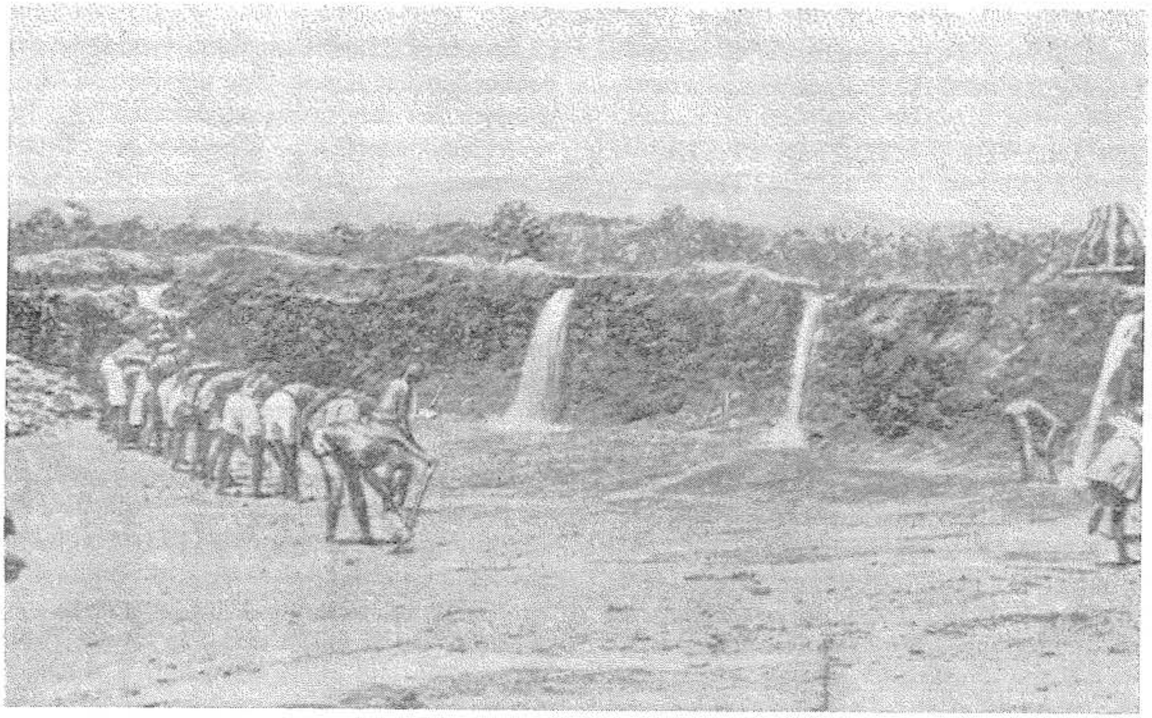
While there was little objection to the principles of the cartel, the question of just how production quotas were to be allocated among the participating governments was particularly contentious. Each member was granted a standard tonnage to which the agreed cuts would be applied. The Dutch argued that these tonnages should reflect the historic pattern of production, while Malaya argued that it should reflect current productive capacity including that made possible by recent investment. Allocation was resolved with two compromises. First, an agreement on production in 1929 was suggested as the base for the standard tonnages. Second, Bolivia and Nigeria were to concede part of their claims based on 1929 to the Dutch.[11] The Nigerian government soon received a cable from the Colonial Office in London with assurances that the concessions made on its behalf were both necessary and equitable, adding that, in the domestic administration of restriction there should be "equitable allowance for production initiated in 1929 and 1930."[12] Since the policy of the Nigerian government had always been in favour of leaving the tin in the ground because of low prices,[13] there was no further discussion and Nigeria's participation was confirmed on December 3, 1930.

Companies represented by the Nigerian Chamber of Mines were only given the broad details of the scheme, and immediately urged its adoption without any thought to the question as to how it would be implemented. But the small independent miners were not consulted at all and when they learned of Nigeria's participation they protested vehemently. They had three major objections. The idea of restriction as a contravention of "the first principles of economics" was problematic and impractical in the case of tin, and, they believed, was doomed to "lead to disaster."[14] The second grievance stated that the Nigerian tin industry had been founded on the initial efforts of the independent miner, and that the recent pattern of concentration of capital was based on an unrealistic assessment of the economics of the Nigerian minesfield. The independent miner could continue to produce profitably, even at current prices, while the large companies could not. Consequently, the small operators argued that such an "attempt to bolster up the undesireables at the expense of sound propositions," was not in the long term interest of Nigeria. Excess production was caused by the large companies, and the small miners should not be expected to contribute to the solution of a problem they had not created. Lastly, they protested against the way in which Nigeria's consent had been secured as a result of the pressure exercised by the larger companies through the TPA and the Nigerian Chamber of Mines in London.[15] This controversy about the fact of restriction would turn into a problem with its administration.

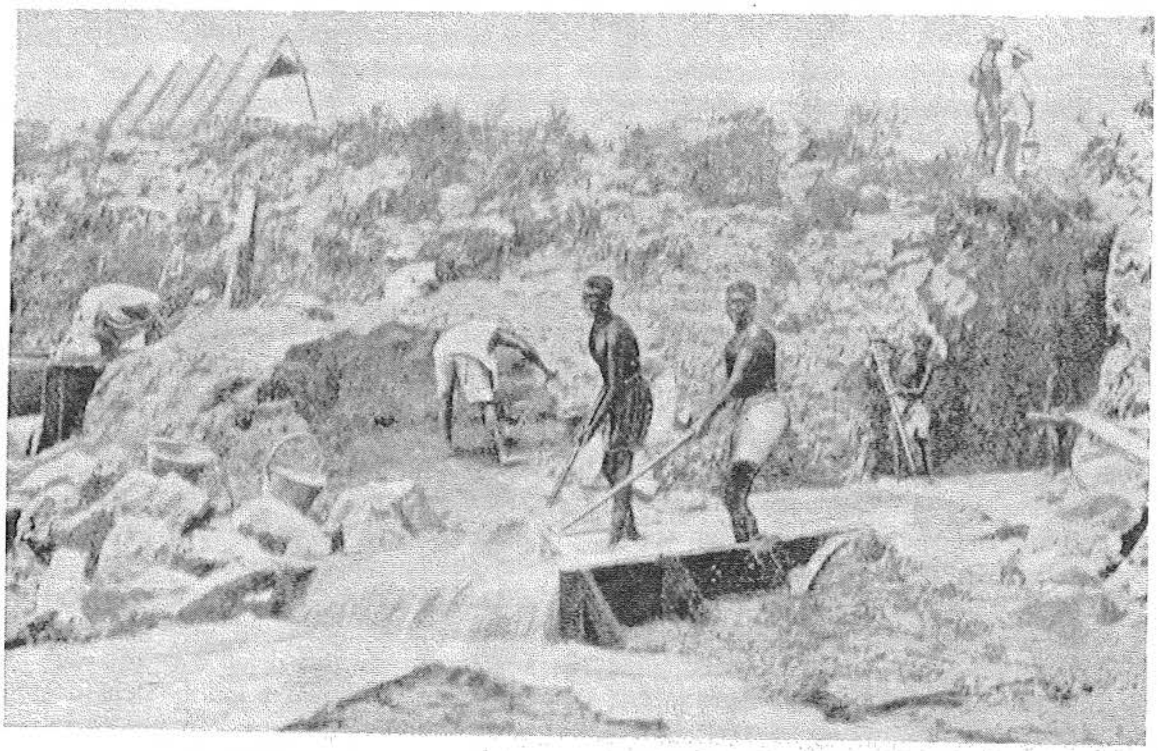
ALLOCATION OF PRODUCTION QUOTAS

The Nigerian government viewed its role as one of administrator in implementing an agreement between the international and domestic tin producers.[16] This duty required the establishment of regulations and procedures designed to ensure that Nigeria did not exceed the quotas determined by the ITC and to distribute those quotas among the domestic producers. The first problem was purely technical;[17] the second was seen as largely ethical, to be resolved by universal criteria of equity and fairness.

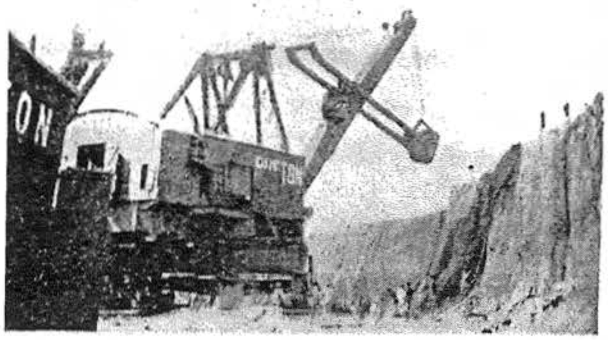
The mining industry of Nigeria was subject to detailed surveillance by the Department of Mines. Not only was it responsible for issuing prospecting licenses, and recommending the granting of mining leases, but it also ensured that mining operations were conducted in accordance with a detailed set of health and safety regulations.[18] Located in Jos, the Department reported to the Resident of Plateau Province where the bulk of the mines were located, who reported to the Lieutenant Governor of Northern Nigeria in Kaduna, who in turn was subject to the authority of the Governor of Nigeria in Lagos. The routine work of the Mines Department was undertaken with full



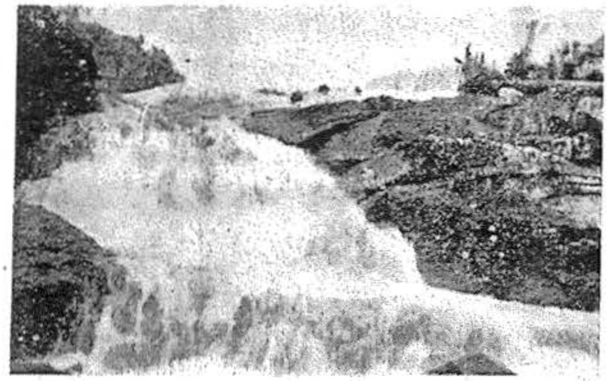
PART OF ACTUAL WORKING FACE, NARAGUTA



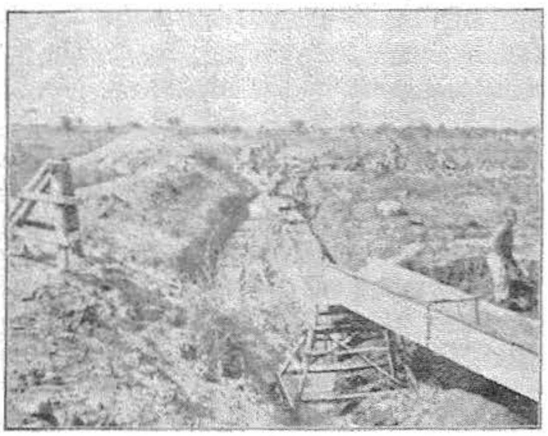
LAUNDERS AT END OF TAIL RACE AT RIVER'S EDGE, NARAGUTA



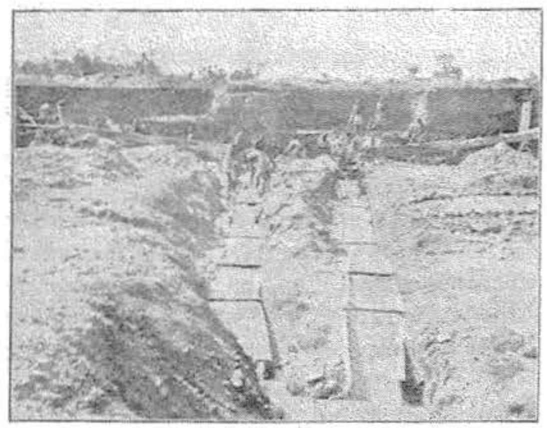
MINING TIN IN NIGERIA.—Steam shovel stripping nearly fifty feet of overburden to expose the tin wash which is being dug up by the small excavator in left corner of the picture



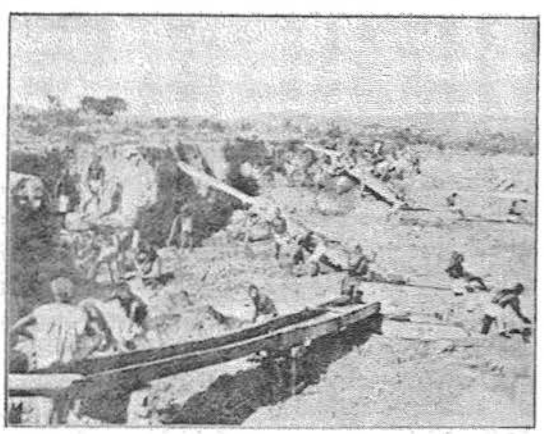
MINING TIN IN NIGERIA.—Water, under definite control, is the life-blood of all alluvial propositions, and where, as in this case, it can be conveniently harnessed for hydraulicking, it ensures low production costs



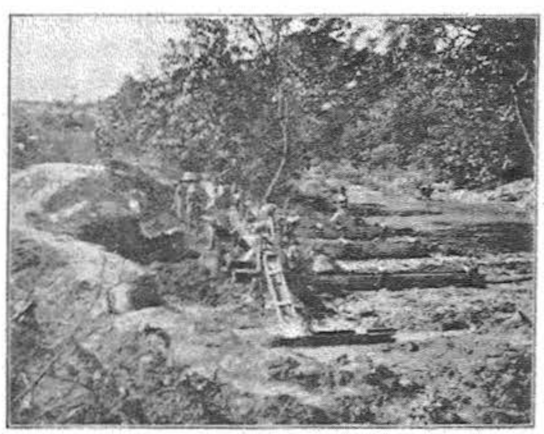
178 NARAGUTA



179 NARAGUTA



180 NARAGUTA



181 NARAGUTA. FOUR SLUICE-BOXES IN LABOURERS' CREEK

autonomy, and it was initially hoped that the Department could administer the restriction agreement in a similar fashion.

Without much thought as to the magnitude of the task and its implications, the Chief Inspector of Mines, Langslow Cook, met with representatives of the domestic industry to agree upon a set of working principles, and established a Quota Committee, drawn from each sector of the industry, to implement them. Cook thought he had created a system that would place "upon the mining community the responsibility for carrying restrictions into effect in their own way, the Resident and myself only acting as referees to see that no section of the community is unduly penalized."[19]

The Department established three objectives for allocating quotas via the Quota Committee: 1) preservation of each producer by ensuring an "irreducible minimum or living wage.";[20] 2) recognition of past production performance; 3) recognition of recent capital investment which had yet to generate output. All producers could therefore make three types of claim for quotas: first, for a basic allowance of 12 tons per year, granted automatically to every qualified producer;[21] second, for an ordinary allowance, based on 1929 production; and third, for a special allowance, based on 1929 and 1930 investments which had generated productive capacity by January 1, 1931. While virtually all sectors of the industry had a common interest in ensuring production restriction, each company had an interest in securing as high a quota as possible for itself. That contradiction generated constant political pressure to modify the quota formula, and the way in which the government responded to such pressure reveals much about the overall problem of trying to regulate a complex mining industry.

Initially it appeared that the system was going to work well. Of the 90 cases under consideration, only seven were the subject of a difference of opinion within the Quota Committee, and of these only two involved important amounts of quota.[22] The initial distribution of quotas was as follows:

Table 1: Allocation of Production Quotas

	ADMITTED CLAIMS		RATIOS OF QUOTAS TO 1929 OUTPUT		
Tons concentrates	Ordinary (1929)	Special (1930)	1931 (Mar-May)	1932 (Jan-May)	1932 (July-Dec)
SMALL	637	775	1.76	1.36	1.11
Individuals	513	703	1.90	1.49	1.22
Companies	124	72	1.18	.83	.66
MEDIUM	5287	609	.64	.47	.27
Objectors	4047	365	.62	.46	.26
Non-Objectors	1240	244	.71	.51	.29
LARGE	9291	2739	.71	.53	.30
Latilla	2212	639	.74	.55	.32
ATMN	3366	1800	.85	.64	.37
Other Anglo-Oriental	3713	300	.56	.42	.24
NIGERIA TOTAL	15215	4122	.73	.54	.32
Ratio of Small to Total			2.48	2.51	3.46

Source: SNP 14034A. 1932 Calculated on basis of applicable formula. Metal content was considered to be 72% of the shipping grade concentrate.

What is striking is that the main beneficiaries were polar opposites, the largest company, ATMN, and the small independent miners. This was the result of the application of two principles of equity: the first to ensure that each productive unit could weather the depression, and the second to recognize current productive capacity. The fact that both principles operated in favor of the small miners was sufficient to overcome their initial reservations. Such preference was reinforced by more pragmatic considerations. Bankruptcy on the part of small miners posed two potential problems: they might remain in Nigeria, becoming a group of poor whites and upsetting the established link between class and race, or they might demand repatriation.[23] If the number of white miners had to be reduced, far better that they come from the companies which had the responsibility of ensuring that dismissed employees be shipped home.

In extending privileges to two groups, the government inevitably upset others, and the controversy focused on the special claims for recent investment which had permitted an increase in capacity. A group of older medium-sized companies became particularly vociferous. It included the Naraguta and Kaduna groups, together with Bisichi Tin Company, Lower Bisichi Tin Company, Jantar (Nigeria), Jos Tin Areas, Tin Fields of Northern Nigeria and South Bukeru. Members of this group objected to the principle of special claims, arguing that their original consent to cartelization had been based on the expectation of a cut around 25%. The distortions introduced by the principle of special claims meant that they were now expected to absorb a cut of 38%.[24] As these companies grasped for moral principles with which to bolster their case, they also pointed to the dangers of supporting further monopolization with the growth of ATMN, and felt they had a particular claim as the pioneers of the industry.[25]

The objecting companies took the issue of quota allocation to Nigerian Chamber of Mines in London, where Sir Edwin Speed, Chairman of Naraguta, found a fundamental contradiction in the way in which companies who had participated in the voluntary restriction schemes had nonetheless continued to expand capacity for which they were now being rewarded with special claims:

> How could that [development] be when the companies that answered to that description were already under an honourable agreement to restrict production. The idea was to restrict. . . . and if they chose to develop, they did it at their own risk. . . . The scheme could not possible succeed except in an atmosphere of complete good-will. The last thing to produce that atmosphere was a sense of injustice.[26]

Cook ignored these sentiments and continued to insist on the equity of the principle of special claims.[27] However, there was a serious administrative weakness in his position. Without a production history, his assessment of the potential production from recent investment was speculative, forcing the Quota Committee to make a hasty decision in setting quotas.[28] The Quota Committee rationalized its decision believing that the claims could be reduced once production data became available. This assumption proved faulty, however, because further reductions in the level of the international quotas skewed the data, making it useless as a guide to actual capacity. These kinds of problems opened the tin industry to contentious relations among the operators.

The first move by the disaffected minority was to bypass the newly established administrative system and appeal to the Governor of Nigeria, Donald Cameron, in Lagos, who proved sympathetic to their case.[29] However, when the governor took up the complaint about the distortion caused by the special allowances, the supporters of the quota system argued that it had been designed in the best interest of the entire mining community. Before any alternative could be taken seriously, it had to address both the specific problem of the small miners, and the special claim of ATMN that would enable it to recoup its investment in Kurra Falls.[30] The governor therefore struggled with his sympathy for the objectors and the difficulty of formulating a coherent alternative.

In addition to approaching Governor Cameron to change the quota scheme, the objectors also used the Local Council of the Nigerian Chamber of Mines to challenge the Quota Committee, claiming that it lacked the authority to represent the industry as a whole since its members included active miners who were in a position to advance their own interests. In effect, the objectors wanted to turn the Quota Committee into a strictly governmental rather than a joint government-industry body, thereby creating a structure that would permit overt politics to determine policy. As the administrators tried to defend their machinery, they dismissed the substance of the issues raised, as the merely the result of "frayed and sore nerves."[31]

Some immediate flexibility was found as a result of a small increase in the international standard tonnage awarded by the ITC to Nigeria, as a result of a belated discovery of a mistake in the recorded statistics for 1929. This windfall of 314 tons could be awarded as relief to those who were particularly hard pressed, so that a new moral claim was tacitly recognised without regard to the overall principles which formed the basis of the scheme.[32]

The issues in contention were addressed at a general meeting when Governor Cameron visited Jos in early August, 1931. By this time the ITC had reduced authorised production levels from 78% to 65% of standard tonnages. Since the complex formula for internal allocation had been designed on the basis of the initial cut, a strong case could now be made for revision. This meeting, therefore, provided an opportunity to review the entire quota scheme.

The large companies tried to identify contradictions in the position of their opponents. The medium-sized companies argued for 1929 production as the sole basis for internal allocation of quotas. However, the large companies pointed out that this would reflect the increase in productive capacity initiated by the medium-sized companies in 1928. If this increase in productive capacity were recognized, then equity demanded that the increase in capacity available to the large companies resulting from the Kurra Falls hydro-electric project should also be recognized. Since Kurra Falls had also been started before the slump, the fact that it did not materialize until 1930 should not disqualify it from a special allowance. The conditions under which the government had granted permission for Kurra Falls did not allow for a slowing down in its rate of completion, so that the government now had a particular obligation to concede the special allowances. The large companies also claimed the moral high-ground of being the greatest source of the basic quotas which, in reality, operated in favor of the small miners. However, the large companies were prepared to compromise, they proposed that any further increase in production permitted by the ITC be assigned entirely to ordinary allowances alone.[33]

For the medium-sized companies, the issues were equally clear cut. They believed that increase in capacity in 1930 was not justified, making the special allowances rewards to those who were responsible for the problem of overproduction. These companies felt that the details of the restriction scheme had not been properly discussed when it was first initiated and found themselves bound by a principle they disagreed with. They were forced to restrict production at a much higher rate than anticipated, for what they considered to be the benefit of undeserving interests. Both the process and its results had placed them in an untenable position. For their part, they were prepared to offer a compromise which would recognise the principle of special allowances, but at half the existing rate.

The small miners too felt they had compelling arguments. Their original opposition to restriction had been suspended only with special assurances which recognized the cost of their fresh investment in 1929 and 1930. They also presented themselves as responsible for the long term development of the minesfield.[34]

Agreement was reached on some matters. Most important was the modification of the concession made to the small miners. Basic allowances were abolished and replaced by a minimum entitlement of 12 tons per year, now called a "Compensating" or "Compassionate" Allowance. The system of special allowances was also revised. Hitherto quota allocated on the basis of special allowances had to be won from the specific property which had been developed in 1929 or 1930. This restriction was abandoned, so that special and ordinary allowances were consolidated, and producers were granted the right to transfer quota freely among themselves.[35]

The government was just as divided as the industry. While Governor Cameron appreciated the claims for special allowances, his fundamental sympathy remained with the medium-sized companies; the Chief Inspector of Mines, Langslow Cook, still supported the large companies and the independent miners. During these deliberations, the government could not formulate a coherent policy; it was confined to supporting the principle of restriction, and in administering that principle on behalf of the industry. The divisions that could not be overcome in Jos were then referred to the Nigerian Chamber of Mines in London. This body had now fallen under the control of the larger companies and it therefore endorsed their position.[36]

Although the restriction measures had been successful in bringing production into line with consumption, a large stock overhang continued to depress prices, and the ITC decided on drastic measures. From July 1932, Nigerian production was cut to 32 per cent of her standard tonnage. This forced yet another reconsideration of internal distribution. The principle of compensating allowances placed the small miners in a far too privileged position. The effect of the modifications made in August 1931 in preserving the rough balance between the groups is evident from Table 1, with the ratio between the restriction levels of the small and medium-sized groups being maintained at around 2.5:1; if the level of the compensating allowances remained unchanged, the new round of cuts would raise this to over 3.5:1.

The Resident of Plateau Province, Hale Middleton, took the opportunity to inform the mining community that he now wished to review the principles of allocation of restriction. It was clear that the large companies could no longer afford the concessions made to the small, and Cook now considered them "pure sentiment" to the detriment of the "real backbone of the industry," the large companies.[37] Unable to depend on the original assurances from the government, the small miners organized the Private Mine Owners Association to defend their interests.

The medium-sized companies also wanted to use the opportunity to reopen their case against the special allowances, and were prepared to challenge the compensating allowances.[38] The small miners then began to counter-attack, and proposed yet another criterion for the allocation of quotas, comparative profitability, so that each producer would earn the same rate of return on investment.[39] It was clear to the government that any reopening would involve endless politics, especially since there was no staff available to undertake a complete assessment of the only basis that stood a chance of adoption, current productive capacity.[40]

However, the medium-sized companies could not simply be ignored. The additional 314 tons awarded in the previous summer was withdrawn on the reduction in the quota allocated to Nigeria. It was felt that a further concession would be justified and for this the small miners might have to be sacrificed. Middleton observed:

> The small miner is of no particular use to the industry and if Government has to choose between annihilation of the small owners and the bankrupting of large concerns . . . then clearly the latter are more worthy of consideration and Government in its own interest must protect them.[41]

This position was articulated more provocatively and publicly in the *Nigerian Daily Times*, where it was argued that the small miner had no "moral rights . . . as no such thing is recognized by big business," and the anonymous author looked forward to the day when the Nigerian Chamber would be "completely controlled by one group which will eliminate all disputes and enable united front being presented to Government."[42]

As the small miners responded, they reopened the question of the principle of restriction and the interests that it served.[43] In this they were joined by some of the companies who were growing impatient at the delay in price recovery. With a much wider range of issues being raised, there was no attempt to call a general meeting to search for a new basis for agreement. Instead all the issues were referred to the London Chamber. However, on this occasion the medium-sized companies were better prepared and took control of the process,[44] presenting a report that made three major recommendations: 1) eliminate compensating allowances and encourage the small miners to move out of tin into gold, 2) transform the Quota Committee into a purely government body, and 3) undertake an independent inquiry into the actual productive capacity represented by the special claims.

When the report was received by the Nigerian government, there was no willingness to rethink the premises of the original conception. To do so would involve a substantial commitment of time and resources to determine current productive capacity accurately.[45] The problem of determining a satisfactory basis for the allocation of production quotas remained intractable.

Fortunately, by mid-1933 the price recovery was well under way and, as a result, the particular pressure on quota allocation was defused. This process was reinforced by the fact that some of the smaller producers did make the transition from tin to gold.[46] However, the government considered that it had learned one important lesson from the entire experience. The politics of tin were unnecessarily troublesome. It was not prepared to support any strengthening of the scheme through a Buffer Pool[47] and it had lost enthusiasm for its renewal.[48]

CONCLUSION

All parties to these debates worked with a similarly moralistic discourse, attempting to find universal criteria of fairness and equity, in terms of which they could couch their own interests and challenge those of their opponents. The mining industry may have had a common interest in a policy of cartelization. Yet the Nigerian tin industry was structurally differentiated, and because that country's government could not devise a satisfactory policy, conflicts and delays arose. The issues involved were inherently political, and their resolution required political responsibility on the part of the government to chart an overall policy for the preservation and development of the industry during production restriction.

Treating the question of distribution as though it can be reduced to the administration of consensually established principles was largely responsible for the escalation of the actual politics. But those politics never challenged the assumption that the process should be inherently apolitical. Had the government been prepared to recognize that, as the ultimate owner of the resource,[49] it could have created a policy that would have facilitated the most efficient management of its tin resources. The government could then have escaped from the conceptual trap it set in defining itself as the policy implementer in behalf of a mythically homogeneous "industry."

NOTES

This research was supported with a grant from the Social Sciences and Humanities Research Council of Canada. Nigeria is the only member of the ITC with a complex industry which has preserved a comprehensive set of files on the domestic administration of tin restriction. The files are very extensive since they not only include the records of the Mines Department, but also correspondence between the Department and the Secretariat of the Northern Provinces, much of which was also copied to the Governor of Nigeria in Lagos. They are in the Nigerian Archives in Kaduna. An earlier version of this paper was presented at the Third International Mining History Conference, Golden, Colorado, June 1994.

1. This section relies on Bill Freund, *Capital and Labour in the Nigerian Tin Mines* (London, 1981), Chapters 1 & 2.
2. A. F. Calvert, *Nigeria and Its Tin Fields* (London, 1910; reprinted 1977), 181. For a general survey see Penelope Bower, "The Mining Industry," in Marjorie Perham, *Mining, Commerce and Finance in Nigeria* (London, 1948), 6-8.
2. E. W. Hodder, "Tin Mining on the Jos Plateau of Nigeria," *Economic Geography,* 35: 2, April 1959, 115. The term "miner" was only used to refer to European engineers, and the handful of Africans who held mining leases.
3. W. E. Sinclair, "Tin Mining in Nigeria," *South African Mining and Engineering Journal,* August 14, 1943.
4. Hodder, 110.
6. W. E. Sinclair, "Steam Shovel Mining in Nigeria," Institution of Mining and Metallurgy, *Transactions,* May 1930.
7. London Tin Syndicate, Annual General Meeting, December 30, 1929.
8. In 1929 there were 65 small miners, two who were Africans. Many properties did not lend themselves to large scale exploitation, and ATMN sold off several from the companies it absorbed in 1928.
9. National Archives, Kaduna, Secretariat of the Northern Provinces (SNP) 17/2/19018, letter from Canaris, December 26, 1934, Chief Inspector of Mines (CIM) to SNP, July 27, 1935. Cf. Freund, 92.
10. The TPA programme was orchestrated by John Howeson and encompassed most companies operating in Bolivia, Siam, Malaya and Nigeria. It was endorsed by the Nigerian Chamber of Mines (NCOM), Minutes of Meetings of Council, July 1, 1930, 16545/2. These minutes are in the Guildhall Library, London.
11. A full account of these negotiations is provided in John Hillman, "Malaya and the International Tin Cartel," *Modern Asian Studies,* 22:2 (1988), 237-261.
12. SNP 14034, Secretary of State to Governor of Nigeria, November 7, 1930. A similar clause had become a condition of support by the Federated Malay States Chamber of Mines, and was simply copied in communications with Lagos.
13. CO 583/166/5/581/29, minute July 26, 1929. The Mines Department was also strongly supportive of restriction, SNP 14034, CIM to SNP, November 28, 1930.
14. SNP 14034, Petition to Chief Secretary, December 13, 1930.
15. SNP 14034, Byrde to Chief Secretary, December 20, 1930.
16. SNP 14034, CIM to SNP, November 28, 1930.
17. Nonetheless, it was quite complicated as a result of the infrequent sailings from Nigeria, and the need to coordinate Customs control over exports with the production and railing permits issued by the Mines Department.
18. In 1930 the Department had 5 Inspectors of Mines together with the Chief Inspector and his Deputy. They supervised activities on 1732 Mining Leases carried out by 186 Europeans and 29,182 Africans, Annual Report, 1930.
19. SNP 14034A, CIM to SNP, June 19, 1931.
20. *Ibid.*
21. Eligibility was confined to those mining as of January 1, 1931. This meant that new miners who had taken all the usual legal steps necessary to start operations after the cutoff date found themselves without any effective right to do so, SNP 14839, Barton to SNP, March 19, 1931.
22. SNP 14034A, CIM to SNP, July 22, 1931.
23. SNP 14939 has full details of one such case and its cost.
24. SNP 14034, Bisichi Tin Company to Chief Secretary, Lagos, March 16, 1931.
25. SNP 14034A, Mathews to Chief Secretary, June 29, 1931.
26. NCOM 16545/2, Council Meeting, April 30, 1931.
27. SNP 14034A, CIM to SNP, July 29, 1931.
28. The same issue was not resolved in Malaya until August 1931 and that delay had permitted chronic, albeit temporary, overproduction.
29. SNP 14034, Tarbutt to Chief Secretary, July 3, 1931; SNP 14034, Chief Secretary to SNP, July 15, 1931. Such conflict between Lagos and Kaduna was endemic to the system of colonial administration, Robert Heussler, *The British in Northern Nigeria* (London, 1968), chapter 3: Marjorie Perham, *West African Passage. A Journey through Nigeria, Chad and the Cameroons, 1931-1932* (London, 1983), 51.
30. SNP 14034A, CIM to SNP, July 3, 1931; CIM to SNP, July 8, 1931; CIM to SNP, July 21, 1931.
31. SNP 14034A, Resident, Plateau Province to SNP, June 20, 1931.
32. SNP 143034A, CIM to SNP, September 9, 1931. The amount was distributed to those who were restricting at a level lower than that for Nigeria as a whole.
33. It would be another three lean years before this could generate any real advantage,
34. SNP 14034A, "Summarised Statement Expressing the Three Groups of Opinion," August 5, 1931.
35. SNP 14034, Meeting of the Quota Committee, December 9, 1931. The new system followed the general lines adopted in Malaya. Free transfer simplified the task of administration, and permitted more efficient production, at least in the short run.
36. NCOM 16545/2, Council Meeting, September 8, 1931.
37. SNP 14304CI, Resident, Plateau Province to SNP, April 4, 1932; SNP 160964, SNP to Chief Secretary, May 4, 1932.
38. SNP 14034, Medium miners to Chief Secretary, June 6, 1932.
39. SNP 14034, Rumbold to Local Council, June 15, 1932.
40. The general retrenchment of the Nigerian Civil Service in 1931 had severely reduced the establishment of the Mines Department in spite of the extra work generated by tin restriction, SNP 14270/II.
41. SNP 14034, minute, June 18, 1932.
42. *Nigerian Daily Times,* November 8, 1932.
43. *Nigerian Daily Times,* November 22, December 1, 1932.
44. NCOM 16545/2, Special meetings of all Nigerian tin producers, December 15, 1932, April 25, 1933.
45. SNP 14034, CIM to SNP, July 10, 1933.
46. SNP 14034C, Resident, Plateau Province to SNP, July 12, 1933.
47. SNP 14034CIII, minute, May 15, 1933.
48. SNP 14034, Governor to Colonial Secretary, June 17, 1933; Resident minute, January 8, 1933.
49. Although the Nigerian government was still compelled to share half the royalties with the United Africa Company as the successor to the Royal Niger Company, this did not reduce the extent of its fiscal interest. Since it set both the rate of royalty and the railway tariff, it lowered the former and raised the latter, since that would not have to be shared.