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*Perched above the Golden Sea*

*Science at the Confluence of Business and Governance in German East Africa*

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B.A. University of Louisville, 2012

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Ph.D., Yale University, 1997

An abstract of

A thesis submitted to the Faculty of the

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Abstract

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My work addresses the development of the German East African (1891-1919) economy, particularly leading up to and following the Maji Maji Uprising (1905-1907). Its primary focus rests on the contradictions behind the rapid rise of the sisal crop of the agave genus. In under a decade, sisal went from almost non-existent in the colony to accounting for over a quarter of its exports. This rise pivoted on the years of the Uprising while also seemingly controverting some of the primary effects of the unrest. For instance, government officials openly began to support indigenous agriculture and proclaimed it to be the colony's economic future. Sisal, however, was grown exclusively by Germans in a plantation setting using African labor. While the stage was set for a conflict between these two divergent aims, sisal's rise continued unabated—the area remains a center of production to this day. My work seeks to contextualize this outcome through an examination of the actors who facilitated its rise.

The key figures in shaping the colonial economy—outside of the African laborers—were German business (primarily concentrated in the northeast of the colony), scientists (employed by companies and the government alike), and the colonial government. Scientists stood at the confluence, receiving funding from both sides. They, therefore, variously reflected the aspirations of both government and business throughout the first decade of the twentieth century. Coinciding with the Uprising and the emergence of sisal as a dominant export commodity, however, science shifted its focus away from the largely failed crops forwarded by the government and took on a more public role in support of business. In showing a similar shift on the part of government toward supporting labor recruitment, this study revises the prior historical portrayal of a government at odds with German settlers and companies. By examining the writings of both government officials and scientists, I seek to spotlight the dominance of the capitalist paradigm in the minds of all these types of colonial actors and behind the wave of support that transformed the German East African landscape into a golden sea.

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# Table of Contents

# Introduction

The 'golden sea' was one German colonist's characterization of the Tanga region located in the north and northeast of former colonial German East Africa (1891-1919; for map, see *Appendix One*). Sisal—a plant grown for the fibers in its leaves and stalk—constituted this vast sea that covered Tanga by the late 1900s. The 'sea', however, only arose after many failed attempts to grow a variety of crops in the 1890s and early 1900s. After 1900, businesses and scientists became increasingly interested in sisal. This interest had lasting effects that reverberate to this day. Tanzania, which composed the majority of German East Africa, currently ranks as the second largest cultivator of the plant. Yet sisal originated in Mexico. As much as the observer commented on a present state, he commented on a transformation that occurred since the German colonization of the area. This transformation was not inevitable. After many aborted experiments, the German East African Company (DOAG; 1884-1920) led a group of Tangan businesses in partnering with then-Governor Gustav Adolf von Götzen (1901-1906) in pooling resources to centralize science in the region at the

Biological Agricultural Institute Amani (f. 1901). Shortly thereafter, the Maji Maji Uprising (1905-1907) led to changes in the colonial administration. The new government made claims that insinuated it would foster African agriculture at the expense of German businesses in the colony. Despite the joint nature of the venture, Amani found itself at the confluence of conflicting authorities. This thesis argues that focusing on the tension between the parallel rise of sisal plantations and a government avowedly adverse to the plantation model ultimately distracts from the central element that gave rise to landscape transformation and the government's eventual acceptance of it. For the ultimate response of both government and science to the success of sisal reveals a common language uniting them with business: the mutual intelligibility of capitalism, which ultimately trumped the reformist impulse of the colonial administration immediately following Maji Maji.

At the colony's outset, cotton and coffee held immense promise and sisal was relatively unknown. By 1900, when it became increasingly clear that German businesses had failed to make their agricultural ventures profitable, observers in the colony and beyond began to consider other options.[1] Things did not change overnight and final attempts to salvage initial investments through coercive tax measures on Africans led to unrest. The result was the Maji Maji Uprising, in which colonial inhabitants, primarily in the south of the colony, sought to

[1] Christopher Conte, *Highland Sanctuary: Environmental History in Tanzania's Usambara Mountains* (Athens, OH: Ohio UP, 2004): 61-62.

eradicate all symbols of the German presence.[2] For a few key officials and advisory bodies, such as soon to be economic advisor Bernhard Dernburg and the Colonial Economics Committee (KWK), these events demonstrated that plantation agriculture could not turn the colony around. Once Albrecht von Rechenberg became governor (1906-1912), the ideas of the KWK gained backing from the most powerful colonial official. Dernburg and Rechenberg began supporting initiatives to limit German agriculture in the colony and encourage African production. If they could convince the indigenous peoples to produce for the market themselves, they would have a nation of taxpayers.

Inquiring into the tension between the positions advocated by Dernburg and the KWK on the one hand, and the interests of colonial businesses on the other, provides the central thread of this analysis. Many historians note that the long-term vision for indigenous agriculture held by the former did not sit well with German businesses in the colony.[3] They also emphasize the tension between science and government regarding the degree to which research should be pragmatic in nature.[4] Many details support this tension, particularly in relation to the experiences of German companies in East Africa, such as the loss

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[2] James Giblin and Jamie Monson, *Maji Maji: Lifting the Fog of War* (Leiden: Brill, 2010): 1.

[3] Ralph Austen, *Northwest Tanzania under German and British Rule* (New Haven: Yale UP, 1968): 71-73; Conte, *Highland Sanctuary*, 66; Lewis Gann, *The Rulers of German Africa, 1884-1914* (Stanford, CA: Stanford UP, 1977): 181-183; John Iliffe, *Tanganyika under German Rule: 1905-1912* (Cambridge: Cambridge UP, 1969): 81-82; Thaddeus Sunseri, *Villimani: Labor Migration and Rural Change in Early Colonial Tanzania* (Portsmouth, NH: Heinemann, 2002): 17-18.

[4] Conte, *Highland Sanctuary* and Detlef Bald, *Das Forschungsinstitut Amani: Wirtschaft und Wissenschaft in der deutschen Kolonialpolitik Ostafrika, 1900-1918*, 13-14.

of concessionary rights a decade prior, repeated crop failures, and an oft-adversarial relationship with the KWK. Despite their setbacks, businesses in Tanga still marshaled substantial resources and could exercise significant power in the area. In prior readings, a government armed with a new ideology and German businesses accustomed to officials more sympathetic to their desires were on an inevitable collision course.

This collision course centered on the question of labor for plantations, as the unrest of Maji Maji and the potential for further conflict was fresh in the minds of the colonial government. For acquiring laborers, German plantations depended on recruitment over long distances and binding Africans in contracts that they did not fully understand.[5] These recruits lived in barracks, away from their families, and away from any easy means of acquiring the basics needed to survive. Their long hours made taking care of themselves incredibly difficult and these hardships were sometimes supplemented by physical abuse. Often all their work came to nothing as planters could interpret the contract requirement for 'four months of labor' in ways advantageous to their own interests. As Maji Maji wound down, government officials began to openly criticize the practices of German colonial businesses and discuss the possibility that German East Africa's

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[5] This thesis does not tell the story of these laborers or that of the development of the East African economy in general, but focuses on the German side. For a fuller picture of East Africa, refer to: Jonathon Glassman, *Feasts and Riot: Revelry, Rebellion, and Popular Consciousness on the Swahili Coast, 1856-1888* (Portsmouth, NH: Heinemann, 1995) and Bruce Berman and John Lonsdale, *Unhappy Valley: Conflict in Kenya & Africa* (London: J. Currey, 1992). Or see Iliffe, *Tanganyika under German Rule* for more on the conditions of African labor specifically within the context of German plantations.

economic future lay in the hands of their African subjects. In thinking this, they did not foresee the significance of the ongoing rise of sisal and the attendant power it afforded plantations in Tanga.

After the uprising had subsided, the increasing success of sisal and the growing labor requirements on the many plantations that cultivated it became the most pressing issue in the colony. The economic triumph of the fiber on the market, however, began to make German-based colonial commerce more palatable to the government. The main sisal market lay in rope and textiles back in Germany, but the German East African product promised to spread beyond the metropole. To account for the future increase in labor requirements, the DOAG spearheaded the formation of a syndicate of Tangan businesses for recruitment and lobbying purposes. The members of this pressure group were acutely aware that they needed government support to recruit workers—labor projections predicted a five-fold increase from 1906 to 1910.[6] As exports increased, Rechenberg revealed himself to be a pragmatist, taking measures to increase the labor supply for sisal plantations in Tanga, demonstrating his attunement to the needs of capital, while also taking steps to support African agriculture in areas not yet penetrated by German businesses. Despite the reformist intent he expressed, his interests coincided with that of large businesses where immediate economic benefit was concerned.

Rather than a latent tension between German actors, the difficulties encountered in the spread of German capital in East Africa can be better

[6] BArch R 1001/19, Letter to the Foreign Office (April 19, 1906).

explained as resulting from local resistance. As John Lonsdale and Bruce Berman argue for the Kenyan case, the main source of tension lay in the articulation of multiple modes of production, both capitalist and customary, in a delimited area.[7] While many Africans resisted becoming workers, opting instead to continue along prior lines, the realization on the part of more enlightened officials that they could not force production for the market overnight could not overcome their instinctual predispositions; that is, they "never ceased to try to provide the conditions for the reproduction of settler capitalism, and to justify it through the myth of the indispensability of the large farm sector to the colony's exports."[8] Between business, science, and government, the paradigm of capital helped sisal resolve the latent tension between German actors following Maji Maji.

Only by examining the way in which actors from all three backgrounds gave rise to a colonial economy dominated by plantations can we begin to understand the shared mentality that made the post-Maji Maji economy possible. In section one we explore the way in which the growth of sisal in German East Africa created ample room for tension between government policy and business developments and examine how colonial science in turn reflects this pull in either direction. This section argues for the immense success of the sisal boom; points out the labor concerns that pushed some key figures to consider indigenous agriculture—developed further in section two; and begins to question the

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[7] Bruce Berman and John Lonsdale, "Coping with the Contradictions: The Development of the Colonial State in Kenya, 1895-1914," *The Journal of African History* 20 (1979).
[8] Berman and Lonsdale, *Unhappy Valley*: 504.

implication that sisal's success contradicted government hopes. Section two seeks to more firmly resolve the apparent contradiction between government policy and business interest through the lens of regional particularity. It reveals that this particularity produced a relationship of both conflict and support with the government, which persisted through Maji Maji once the success of sisal bolstered the power of businesses in Tanga. Whereas section one demonstrates the shift of science towards business ends, section two argues that the government could not resist this pull either. Finally, section three seeks, through examining the writings of scientists and government officials alike, to pin down the logic of the above-outlined developments by demonstrating the extent to which economic motivations drove the relationship between Amani and the colonial government. This serves to further melt away the tension and reinforce the presence of the mutual intelligibility of capitalist aims that existed among German actors in the colony.

* * *

Connections between landscape transformation and identity have been fruitfully posed by a number of scholars. William Cronin's *Changes in the Land* figures most prominently among them and has spurred much historical research.[9] In this work he argues that the tendency of American settlers to view natural resources as commodities resulted in the rise of an exploitative relationship between land and people in the United States. The economic aspect

[9] William Cronin, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 2003).

is a crucial element of his argument. While in many areas *Changes in the Land* is well-trodden terrain, the approaches therein have been under-utilized in examining Germany's own relationship to nature. Many in the field focus on the romanticized views and philosophies held by various Germans; historians have argued that German conceptions of nature held the seed of anti-modernism that they saw as prefiguring the rise of Nazism. As a result, an economic focus has only recently developed in certain areas of German historiography.

This under-utilization began early on as a purposeful counter-attack on the part of historians who felt that arguments casting Nazism as an aberration in German history, unconnected to German culture as a whole, eschewed accepting blame.[10] Without delving into the many complexities of these debates, which have continued in various forms up to the present day, one of their effects has been to direct scholarly attention towards the cultural roots of Nazism that did or did not exist in Imperial Germany (1871-1918). For instance, in the 1960s historians Fritz Stern and George Mosse emphasized the Volkish connection between land and people in Imperial Germany, foreshadowing the rise of Nazi 'blood and soil' and unintentionally skewing scholarly inquiry into the Imperial period.[11] A result of these arguments has been to reduce our understanding of German conceptions of nature to those held by radical nationalists.

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[10] A good place to begin reading about the effect of these debates on Imperial German historiography would be: Chris Lorenz, "Beyond Good and Evil? The German Empire of 1871 and Modern German Historiography," *Journal of Contemporary History* 30:4 (1995), 729-765.

[11] George Mosse, *The Crisis of German Ideology: Intellectual Origins of the Third Reich* (New York: Grosset & Dunlap, 1964), 15-19; and, Fritz Stern, *The Politics of Cultural Despair: A Study in the Rise of the Germanic Ideology* (Berkeley: University of California Press, 1961), .

More recently, historians have corrected this image by expanding their inquiry into Imperial German cultural life. They have revealed that many different social and economic groups engaged with and wrestled over the meaning of their national landscape. In his *Turning to Nature in Germany* John Williams argues, "The expansion of health as a metaphor for a better future further politicized projects of turning to nature, simply because it raised the stakes."[12] Rather than these projects being predetermined by nationalist sentiment, Germans grappled over nature and participated in giving it meaning through hiking, nudist, and 'boy scout' groups. While Williams provides an important addition to the historiography, any physical effect on the landscape remains obscured.

A number of historians have begun to broaden German environmental history by considering the economic effects that conceptions of nature could have.[13] While continuing to focus on debates over the meaning of nature in Imperial Germany, such as that over the national tree, Jeffrey Wilson's chapter on East Prussian forestry provides a glimpse into how conceptions of nature brought about physical changes for those on the periphery. He argues that German foresters sought to impose a vision of an organized German forest on a 'backward', unproductive area in order to render it productive and healthy.[14] Here, 'meaning' resulted in drastic changes for how the ethnic Polish and

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[12] John A. Williams, *Turning to Nature in Germany: Hiking, Nudism, and Conservation, 1900-1940* (Stanford: Stanford UP, 2007), 285.
[13] Jeffrey Wilson, *The German Forest: Nature, Identity, and the Contestation of a National Symbol, 1871-1914* (Toronto: University of Toronto Press, 2012).
[14] Ibid., 132.

Kashubian inhabitants of the area secured their livelihoods, as 'order' precluded them from using the forest as a resource.

The idea that Germany sought to impose order on nature has substantial provenance, appearing in works by historians David Blackbourn and Thaddeus Sunseri.[15] Blackbourn, starting in the eighteenth century, and Sunseri, focusing on German East Africa, contend that the language and actions of German foresters and officials revealed a desire to control people and spur development by imposing a specifically German order upon the land.[16] For the former, this impetus arose out of the Enlightenment vision of progress forwarded by Frederick the Great as "mastery over nature was supposed to mark the moral advance of humankind"—a cultural explanation[17]; and, for the latter, it arose from the desire to impose order on the land of a people that needed to be controlled in order to turn German East Africa into a more German place, a political/cultural explanation.[18] As national and colonial histories, these works are highly informative and do reflect on landscape transformation. By focusing on political and cultural explanations, however, these approaches miss some important aspects of the German ordering of nature at the apex of colonialism

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[15] David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York: W. W. Norton and Company (2007); Thaddeus Sunseri, *Wielding the Ax: State Forestry and Social Conflict in Tanzania, 1820-2000* (Athens, Ohio: Ohio UP, 2009).
[16] Blackbourn, *The Conquest of Nature*.
[17] Ibid., 5.
[18] Sunseri, *Wielding the Ax*, xii: Despite making this point, his argument that this opened the peasantry up for being targets of development goals is only really a long-term argument, where the development was able to happen in the period following Germany's loss of its colonies. Here I discuss development during the German period.

and within the context of the rise of global capitalism.

To this end, scholars have begun to focus on the number of levels on which commodities began to operate beginning in the eighteenth century and intensifying particularly in the late nineteenth and early twentieth centuries—the high point of traditional imperialism. Among these works are hefty tomes produced by scholars such as Kenneth Pomeranz (*The Great Divergence*), Sven Beckert (*Empire of Cotton*), Jürgen Osterhammel (*The Transformation of the World*), and Emily Rosenberg's collected volume (*A World Connecting*).[19] Historians have approached the challenge posed by global history in a number of different ways. Osterhammel tackles the challenge by juxtaposing a wide array of topics in quick succession: the growth of political participation, the development of legal systems, the rise of industrialization, and the evolution of class-based societies. Instead of attempting to ensnare the elusive idea of 'modernity', he presents it to the reader as a multi-faceted, non-singular phenomenon.

While such an intellectual approach has its merits, it does downplay those factors that would increasingly bind the world together in the twentieth century. Pomeranz and Beckert provide a counter-approach to Osterhammel's by utilizing capitalist logic as a binding element on the international stage. For Pomeranz, while resource access plays the key role, the effect of this on international relations was to bring to the fore the "unique advantages for the pursuit of armed

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[19] Kenneth Pomeranz, *The Great Divergence* (Princeton: Princeton UP, 2000); Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014); Jürgen Osterhammel, *Die Verwandlung der Welt: eine Geschichte des 19. Jahrhunderts* (München: Beck, 2009); Ed. Emily Rosenberg, *A World Connecting, 1870-1945* (Cambridge, Mass.: Belknap Press of Harvard UP, 2012).

long distance trade" that European financial institutions possessed.[20] Similarly, for Beckert, Europe propelled itself to dominance on the back of war capitalism, which entailed an attitude towards the appropriation of technologies as well as resources, allowing Europe to develop its grip on the world.[21] Both argue that a way of interacting with the world, driven by a focus on production for the market, became increasingly ingrained over the course of the nineteenth century.

That is not to say that the direction of historical development was a foregone conclusion. To this end, Lonsdale and Berman nuance the role of capital in the British East African context.[22] Capitalism did not simply lay waste to all that came before it, but coexisted and competed with a variety of modes of production. While this paper does not delve into the entire African-based economy, which existed parallel to the plantation economy of late German imperialism, it does suggest that the most pressing issue for the German colonizers was the tension created by the meeting of the two.

This tension asserted itself in the formation of the German East African colonial state in which all German actors in the colony played a part. Like for Lonsdale and Berman, "[the] focus is on the state as a complex historical process, not on governments—which are variously misconceived as sovereign actors [and] pliant instruments of economic interests."[23] The formation of the German East

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[20] Pomeranz, *The Great Divergence*, 19-20.
[21] Sven Beckert, *Empire of Cotton*.
[22] Bruce Berman and John Lonsdale, "Coping with the Contradictions: The Development of the Colonial State in Kenya, 1895-1914," *Journal of African History* 20 (1979): 487-505.
[23] Ibid., 1.

African before the onset of the First World War resulted from the dynamic interaction of colonial actors, wedged in between the global economy and the African economy. As Lonsdale and Berman emphasize, "the domination of the most advanced forms of capital" guided the mindset of colonial actors, regardless of their intention.[24] The German historiography around landscape transformation can be further nuanced by drawing on past and present research concerning both the hegemony of capitalism and the constraints thereon in turn of the century colonial Africa.

This connection has remained shrouded in the historiography on agricultural development in German East Africa. Instead of noting the remarkable degree of mutual understanding that drove the rise of the sisal crop and the plantation economy in the colony, previous scholarship has tended to highlight the tension at Amani—and in the colony at large—between the influence of the colonial government and businesses. Historian Detlef Bald's *Research Station Amani* (1972) represents the first attempt to contextualize the practice of the Institute within a broader field. Bald criticizes previous writers, such as Rainer Tetzlaff, for missing the connections, both social and economic, that Amani had with the surrounding society.[25] For him, this earlier effort to historicize Amani places it in the clouds as an abode of science and nothing else.[26] Christopher Conte's more recent *Highland Sanctuary* continues to cast Amani as

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[24] Ibid., 1.
[25] Rainer Tetzlaff, *Kolonial Entwicklung und Ausbeutung: Wirtschafts- und Sozialgeschichte Deutsch-Ostafrikas, 1885-1914* (Berlin: Dunker und Humblot, 1970).
[26] Bald, *Das Forschungsinstitut Amani*, 13-14.

directed by idealistic aims, arguing that this led to a strained relationship between the Institute and the government. To him, the research institute "degenerated into heated debate over the benefits of pure versus applied research."[27] In contrast, Bald argues that the real impetus for the foundation of Amani lay not in the government, but in the pressure that German companies exerted on the Foreign Office (*Auswärtiges Amt*). His broader view begins to contextualize Amani within the development of the colony itself.

The notion of a latent tension between German actors provides the driving force for both Conte's and Bald's arguments. Conte bases his claim concerning the Amani Research Institute on there being a conflict between science and business, while for Bald business and science join in a skirmish against the government. Instead, this thesis argues that Lonsdale and Berman's emphasis on tension between modes of production rather than that between German actors provides a better view for understanding the engine of change that sat behind German East African development in the twentieth century. Though the writings of Bald and Conte serve a particular heuristic purpose of disaggregating what is meant by "colonialism" or "German colonialism," the converse also deserves consideration. Without dismissing the validity of such arguments, it is nevertheless important to examine what such arguments miss; mainly, they miss the extent to which forces came together to cause the landscape transformation that the above commentator poetically termed "the golden sea."

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[27] Conte, *Highland Sanctuary*, 66.

# 1. Towards a Plantation Economy

The golden transformation did not come quickly or easily. In fact, early opposition to plantation agriculture in German East Africa arose due to how much trouble plantations faced. This was intimately tied to the failure of coffee and cotton cultivation in the colony. A veritable scramble for cotton accompanied the larger scramble for Africa in the late nineteenth century. The American Civil War caused Great Britain to seek out other ways to secure its cotton supply. This demand in turn led to a greater constraint on cotton's availability during the depression of the 1870s. Economic downturn then induced newly industrializing nations to erect tariffs in order to protect against the political unrest that might ensue if domestic production were opened up to external competition.[28]

This high-pressure situation led to the transference of the economic

[28] Andrew Zimmerman, *Alabama in Africa* (Princeton: Princeton UP, 2010): 66-67. Following the depression of the 1870s, many European nations erected protectionist tariffs. Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014), discusses this process: 247-273.

burden to indigenous populations of German East Africa, whom Governor Götzen required to pay a higher tax in order to force them to labor in poor conditions on cotton plantations. The need to ensure employment for workers in the metropole and guard against inflation redounded into the colonies. The Colonial Economics Committee and the German East African Company sought eagerly to expand cotton production. The main bottlenecks in their plan were the lack of a wage labor force from which to draw and ecological constraints—cotton did not grow well on plantations in the north of the colony. The implementation of the hut tax—a base tax on all inhabitants that could be waived in exchange for labor—was meant to coerce indigenous inhabitants to work for wages. While the government intended the measure to alleviate the labor problem, it resulted in widespread revolt in large parts of southern German East Africa.

Upon the KWK's advice, colonial policy began to favor individual over plantation production as the most effective method for inducing individual planters to grow cotton and, thereby, gain the ability to pay taxes.[29] The managers and shareholders behind the northern plantations had their own ideas, however, as the same conditions that pushed the government to seek other economic solutions provided the grounds for businesses to pursue new crops. Sisal's proliferation eventually eroded resistance to its cultivation, as well as to the plantation economy that undergirded it. Despite a lack of backing outside of business circles in the early stages and some resistance on the part of government officials to plantation agriculture, the economic success of sisal led to a

[29] Austen, *Northwest Tanzania Under German and British Rule 1889-1939*, 78.

multiplication of efforts in favor of its cultivation.

The above outlines the contours of developments for the DOAG and other businesses, on the one hand, and for colonial science and Amani, on the other. Because of its struggles with cotton and coffee, the DOAG continued to flounder into the early twentieth century. Agricultural science became a key means with which the company sought to extricate itself from its difficulties. This eventually led to the creation of the Amani Research Institute in concert with the government and other businesses. Amani's main organ for relaying findings to the general public was *Der Pflanzer*. It provides a window into the operation of the multivalent relationship between science, governance, and business. The publication years 1905 and 1906 provide a particularly insightful look into the German colonial enterprise at the time.

The upheaval of Maji Maji and the impending rise of sisal sit behind the explosive change between 1905 and 1906. The year 1905 sees a continued focus on cotton, while 1906 discusses little else but sisal. Caught in between important funders, those who controlled sisal plantations and those who supported the government, this volatile change in Amani's focus demonstrates the pull in two directions experienced by the Institute as well as the overwhelming influence of economic factors in determining which pull was stronger. This first section seeks, through paralleling the physical rise of sisal with the intellectual development of colonial science, to bring the actual landscape transformation that the publication of *Der Pflanzer* reflects to the fore and explore the tensions that other scholars have emphasized.

## The Missteps, Failures, and Advance of the Early Plantation System

The DOAG occupied a unique position in the early development of the colony, and as a concessionary company could exercise powers in the Tanga region which were traditionally reserved for the state (discussed further in chapter 2). It possessed the ability to print its own currency, to seize unused lands, and to pass judgment on day-to-day issues in its demesne. It essentially could operate as a company-run state leading up to the establishment of a stronger colonial government in 1891 and the gradual erosion of its powers. While 11 million marks in capital investment allowed the DOAG to extend its reach throughout the colony, its plantations, with a few exceptions outside of Dar-es-Salaam and Lindi in the south, were exclusively located in the Tanga region. The most important of these were Derema and Ngua (which would soon merge to form Union); Muoa; Kikogwe; and, later, Kange (among other, less frequently mentioned plantations). The developments on these plantations corroborate the more sweeping statements above and provide background to developments at Amani.

Initially, the DOAG moved quickly to establish cotton and coffee plantations in the northeast of the colony. To bolster this investment they planned to build a rail line from the town of Tanga on the coast through Usambara and to the cotton plantation at Kikogwe. The DOAG also constructed a port at Pangani, establishing two export centers in the northeast as early as 1890 (before the colony even had a governor). To best seize hold of the momentous

opportunities afforded by their position, the DOAG began to bring scientific expertise to the colony. The society recognized the need to conduct research in order to take full advantage of environmental conditions and began issuing reports on remedies for various plant fungi, the cultivation of coffee plants, proper manure usage, and how to treat plants for pests.[30] The latter problem quickly became a central one in the yearly reports of the society.

The same year that agricultural science became a central concern in DOAG reports, the society began to plant coffee trees at its main cotton plantation, Kikogwe. While the company may have planned this early on, the trend against cotton continued and developed rapidly. In the 1895 report, coffee becomes the primary focus—these reports were, after all, aimed at the large numbers of investors who had contributed to the eleven million marks in capital that the society began with and wanted to highlight successes. The slow development of the coffee trees could temporarily direct attention away from the failure, but the problem was stark. As the 1895 report stated, "the future at Kikogwe lies, on the one hand, with the extension of coffee and the 12,000 coconut palms that have thus far been planted and, on the other hand, with the placement of greater importance on the sisal crop."[31] The DOAG was unsure of what to plant in the wake of cotton's failure at Kikogwe.

Despite sisal's being an afterthought to other concerns here, development behind the scenes did foreshadow the ascent that the crop would soon achieve.

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[30] BArch R 1001/363, pg. 21. 1894 Yearly Report of DOAG (June 1895).
[31] BArch R 1001/363, pg. 50. 1895 Yearly Report of DOAG (June 1896).

At the time of the 1895 publication, Kikogwe had a grand total of 1,000 sisal plants, constituting the DOAG's entire investment in the crop. The lack of physical development notwithstanding, the scientist Richard Hindorf, who played the crucial role in supporting the establishment of the crop for the colony, was responsible for acquiring plants for the DOAG. The future Amani scientist and publisher of a treatise on sisal now worked with the most powerful company in the colony towards changing Kikogwe away from cotton and away from coffee into the largest sisal plantation in German East Africa.

The transformation did not take place overnight and coffee did not dissipate like cotton did. It is likely that the DOAG simply did not have the money to reboot its many struggling endeavors, so it persevered. This financial struggle is evidenced by the lack of a dividend over the course of its first decade of existence. The way to a productive plantation did not come easily or immediately. By 1897, the addition of a 60-plant sisal experiment at Kikogwe provided the only signal of future developments.[32] Coffee would remain the central concern for some time despite worries over the ability of the German East African coffee crops to overcome the dry and windy weather of Tanga. A number of experiments were carried out in order to find solutions for both of these problems, to little or no avail.[33]

By 1899, however, the first signs of change were beginning to appear. There were now 63,000 sisal plants (still a relatively small number), but also

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[32] BArch R 1001/363, pg. 73. 1897 Yearly Report of DOAG (June 1898).
[33] BArch R 1001/363, pg. 85. 1898 Yearly Report of DOAG (June 1899).

more optimism. In regards to Kikogwe, the report stated, "On this plantation the sisal crop becomes more significant with every passing day. We estimate that the profit from its introduction is the recipe to make agriculture in the northeast of the colony productive."[34] Despite the confidence espoused by the plantation manager, the DOAG remained in difficult economic circumstances. This was a company losing money, in possession of numerous plantations, and with an amount of sisal plants still dwarfed by their other holdings, such as coffee and coconut palms.

There was little sign that things would change and desperation hit a high point in 1899. The largest plantation, Union, could not produce coffee at an acceptable rate due to a dry period. The conditions were so poor at Union that the plantation leader requested an additional 250,000 marks to replant many of the coffee trees to provide shade and windbreaks.[35] The director there personally wrote in the yearly report, "It was the first and oldest plantation in Usambara, and German East Africa, and our 'experimental plantation'. Of course many mistakes were made."[36] In official correspondence Kikogwe was even sometimes referred to as an 'experimental station'—a term later applied to Amani's remote stations.[37] Given these difficult circumstances and the scarcity of available funds, the promise of sisal still lay further down the road. Despite this, the number of

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[34] Ibid., 85.
[35] BArch R 1001/363. 1899 Yearly Report of DOAG (May 1900).
[36] Ibid.
[37] BArch R 1001/363, pg. 104. Correspondence from the German East African government held by the colonial section of the German Foreign Office (August 3, 1900).

plants at Kikogwe did rise to 150,000 by May 1900.

If the period during which sisal became the dominant export crop in the colony constituted the sisal boom (1906-07), the years 1900-02 were the period in which the first substantial steps towards this development occurred. At Kikogwe in 1900, the first 63,000 sisal plants matured, 87,000 were two years old, and 50,000 were one year old. While these numbers certainly show some significant investment, they pale in comparison to what would come in the following two years.

As the society continued to incur losses from its coffee plantations, the DOAG decided to invest its remaining hope in sisal. By June of 1901, the DOAG planted an additional 491,000 sisal plants at Kikogwe and even began to supplement their coconut palm crops at Muoa with sisal.[38] Moreover, the optimism of the DOAG was matched by the German East African Plantation Company (DPG), which took the first steps in 1900 towards founding an offshoot society, the German East African Agave Company (DAG), with the goal of establishing the beginnings of a sisal plantation in the colony by 1902. These large investments on the part of the DOAG, DPG, and DAG, came on the heels of a single successful harvest of notable proportions (63,000 plants) and, thus, constitute a remarkable gambit on the part of German East African plantations to achieve profitability.

Given the emphasis theretofore placed on coffee and cotton, these investments in sisal did not translate immediately into general enthusiasm. Over

[38] BArch R 1001/364, pg. 9. 1900 Yearly Report of DOAG (June 1901).

the course of the next few years, both the DOAG and the DAG matched signs of progress with signs of trouble. The DOAG continued to increase its sisal holdings all while struggling to pay off its current debt—taking on an additional eleven million marks of debt—and being unable to pay a dividend to its investors.[39] For its part, the DAG quickly ran into trouble with mismanagement on the part of its first plantation director.

Despite quickly increasing the amount of sisal on their Buschirihof plantation, the DAG's dwindling funds overshadowed their success. The initial plantation director, Herr Passarge, wasted much of the original investment on unnecessary equipment due to his lack of expertise, invested in donkeys despite the prevalence of diseases in the colony to which they were susceptible, and was even jailed by the government for a short period for mistreatment of workers.[40] After his dismissal by the DAG, Herr Passarge wrote to complain to the DPG, who then threatened to dissolve its relationship with the DAG. Elements in the DPG claimed, "the connection between the DPG and DAG is baleful and must be dissolved or it will be the downfall of the DPG."[41] While the relationship did not end, the DPG was firm in wanting to see the production of a dividend.

The first steps towards the rise of sisal were fraught with lurches and jolts, but by 1903-04, momentum had set the path towards boom or bust. By 1904, the

[39] BArch R 1001/363, pgs. 70 & 163.
[40] BArch R 1001/496. DAG reply to DPG complaints (January 31, 1903).
[41] BArch R 1001/496, pg. 115. Letter from DPG to the DAG (January 21, 1903).

DAG had reached over one million plants on their Buschirihof plantation.[42] Not to be upstaged, the DOAG's sisal plants spread out over at least four plantations with Kikogwe reaching 1.8 million plants over the course of 1903 and Muoa reaching 1.4 million.[43] The vast majority of these plants had yet to even reach maturity! The stage was set for a substantial change in the economic direction of the colony. Despite these developments, colonial science, now centered at the Amani Institute, did not immediately reflect the changing circumstances.

## *Der Pflanzer*: In Support of a Plantation-based Economy

The disregard paid by Amani to the potential impact posed by sisal is suggestive of the difficult position in which the Institute found itself operating. The government, KWK, and businesses in the Tanga region heavily influenced the work produced by this centralized scientific body. The previous year saw some growth in the export value of sisal, but it still sat around a similar level as products like coffee and ivory and well below rubber.[44] This promise was not enough to overcome two decades of partiality towards coffee and cotton on the part of business and other key figures. While these crops had failed German businesses in the colony, administrators began to eye these crops again in 1905, as Maji Maji made some officials question the wisdom of over-reliance on

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[42] BArch R 1001/496, pgs. 166-167. *Geschäfts-Bericht der Deutschen Agaven-Gesellschaft für das Jahr 1903* (April 9, 1904).
[43] BArch R 1001/365, pg. 36. 1903 Yearly Report of the DOAG (May 1904).
[44] *Statistiches Jahrbuch für das Deutsches Reich*: *1881–1917,* https://www.digizeitschriften.de/ (accessed April 19, 2016).

plantation agriculture and the labor unrest such a system could cause. Discussed further in the labor section, the basic premise forwarded by government officials was to push individual cotton production in order to make Africans tax payers. Whatever the decisive influence, sisal remained an afterthought in colonial research throughout much of 1905, as the government and scientists pursued their own ends.

In *Der Pflanzer*'s first serial year, the year in which the Maji Maji rebellion began, the main focus remains cotton.[45] This focus is commensurate with the economic significance of cotton (both real and potential), which scientists, administrators, and planters thought the crop possessed at this time. The scientists, predictably, engage repeatedly with common diseases and pests that threaten the crop, as well as with methods of care. Moreover, they demonstrate a keen interest in the business side of cultivation. A number of articles elaborate conditions of production amongst German East Africa's many competitors: India, British Central Africa (present-day Malawi), and Brazil.[46] Further, they do not limit themselves to mere observation of the fact of competition, but attempt to keep readers abreast of the market conditions to help ensure that planters gain a return on their investment.[47] Thus, in 1905, cotton comes across as anything but a waning commodity in German East Africa.

Sisal, on the other hand, appears as an afterthought in the same serial year's publications. There is a comparative lack of consideration of either the

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[45] *Der Pflanzer* (Amani Institute and Usambara Post, 1905), 3-4.
[46] Ibid., 24, 38, 45, 223.
[47] Ibid., 219.

plant's cultivation or its potential economic significance, which in hindsight we know was great. At this time, sisal even appears as an equal partner next to a number of competing fiber crops. Significant articles appear on both jute as well as the sanseviera plant.[48] The articles on fiber producing plants come across as a probing for a proper match between plant and geography on the part of Amani scientists in a game that pales in comparison to the business of cotton. One statement seems to open and shut the case surrounding the mystery of this disparity in focus: "In comparison with cotton, [jute] has an admittedly extremely high yield. On the other hand, one must consider its relatively low price."[49] Questioning the profitability of the crop sounds as a death knell to the future of fiber producing crops in the colony, yet large investments by Tanga businesses would secure their place. In explaining this incongruity, the admission on the very next page that the cultivation of cotton "cannot yet be regarded as secure" provides some foreshadowing for later developments.[50]

The introduction of sisal appears shortly after this revelation, almost as a first meeting, a chance encounter between author and audience: "If perhaps the majority of 'Pflanzer' readers know the provenance of the name [sisal], I would nevertheless like to mention it for the minority."[51] With a little false humility, the author grounds sisal almost as a new given for his readers in the colony. He contends, "the name sisal in connection with agave and hemp will play a truly

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[48] Ibid., 100, 264.
[49] Ibid., 108: Jute was another plant grown for its fiber.
[50] Ibid., 109.
[51] Ibid., 111.

great role for our colony."[52] Though he perhaps played to his audience with such a sweeping statement, hindsight certainly accords with his rhapsodic writing.

Such grandstanding aside, Eismann's brief supplement to the article "Sisal Land" explains the ecological reasons that made sisal suitable for the colony. The historian Helga Kjekshus argues that the pre-colonial East African economy depended largely on cattle and that, therefore, economic growth in the region signaled that the tsetse fly was not common during the pre-colonial period.[53] With the introduction of European agricultural methods and the limiting of slash and burn agricultural practices that limited breeding grounds for the fly, the environmental conditions of African production changed drastically. The tsetse fly decimated cattle populations by transmitting diseases. Further, an onslaught of rinderpest weakened many African communities in the region, which made them susceptible to a number of other diseases and hastened the economic decline in the face of the advancement of German forces in the area.[54] These two epidemics, rinderpest and the tsetse fly, meant that a scarcity of manure characterized the German colonial period in the area, with devastating consequences for certain crops, including cotton and tobacco. Overcoming this difficulty was an important focus at Amani and had real economic consequences.

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[52] Ibid., 111.

[53] Helga Kjekshus, *Ecology Control and Economic Development in East African History: The Case of Tanganyika 1850-1950* (Berkeley: University of California Press, 1977), 5.

[54] Ibid., 131-132. 'Rinderpest' is an infectious viral disease that affects cattle, amongst other mammals. 'Tanganyika' was the name of mainland Tanzania, used by the British and the first sovereign government before union with Zanzibar led to its present name.

Sisal was purportedly less vulnerable to this problem, as it originated from desert regions with less fertile soil.

Finally, one last 1905 article serves as a clarion call to the coming importance of sisal in the colony and signals the effect that it would have on colonial policy. In an article entitled "The Goldmines of German East Africa," the author Gustav Eismann demonstrates that in science and business, humor is not at a loss: "Gold mines? The reader so inclined will think, this is no theme for a magazine meant for planters."[55] Typical of the articles thus far discussed, Eismann ranks business interests equally with botanical ones. Thus, even beyond ecological concerns he argues that, "In the 'fever time of coffee plantations', it was easier to bring together millions in shares."[56] In the historiography, however, it is clear that coffee's demise resulted from ecological unsuitability, which exacerbated economic constraints. As Eismann contends, "Our land is no coffee land, at least not in the Usambara Mountains."[57]

Beyond this pyrite, a number of crops stand out as the potential source of gold. To Eismann, environmental conditions ranked equally with potential profitability: "It is a land that is suitable for many plants that will achieve a higher worth than coffee."[58] To him cotton elicited hope, and manioc, cocoa, rubber and sisal seemed promising (rubber, which vied with sisal as the most profitable crop before succumbing to market fluctuations and synthetic

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[55] *Der Pflanzer* (1905), 116.
[56] Ibid., 117.
[57] Ibid., 117.
[58] Ibid., 117.

alternatives, deserves ample mention).[59] Sisal, he adds, is "indestructible." This very quality, however, also militated against its profitability: "I think like a business man: what I can achieve in a year, why would I suffer for many years?"[60] The plant could take as many as five years before it reached maturity for harvest. Nevertheless, he contends, "a reasonably laid out and managed sisal plantation is a gold mine."[61]

With this conclusion in hand, his dissatisfaction with government influence bursts forth. Eismann rhetorically asks the reader, "How can leaders and officials pursue these facts with interest if it is a matter of indifference to them whether plantations are productive or not?"[62] This pointed question provides occasion for him to insult these same officials and demand a concerted marshaling of resources for the advancement of science. He wants the direction of the colony to head down a more "pragmatic" path instead of one driven by "egoism" and "idealism."[63] In 1906, the sentiment that the efforts of business and science should synchronize in the pursuit of practical ends finds greater reflection.

## Intensification of the Plantation Economy

Maji Maji placed the direction of economic policy in flux. In 1905, it was

[59] *Ibid.,* 118-120. For more on rubber plantations see Sunseri, *Wielding the Ax*.
[60] Ibid., 120.
[61] Ibid., 120.
[62] Ibid., 121.
[63] Ibid., 121.

not yet clear what crop would provide a solution to make German East Africa more productive. Sisal perhaps appeared an unlikely solution in light of its almost exclusive cultivation in plantation settings, considering the general move in sentiment away from plantation agriculture. Yet, the tide was changing and, from an economic perspective, production clearly trumped failure. Despite this truism, the agricultural shift created a lot of room for dissonance, as shown by Eismann's rant against officials. Much like with a fault line, where there is no tension, there is no change, Eismann's invectives confirm the struggle between the influence of business and government on science. The outcome of the tension burst forth in *Der Pflanzer* in 1906, as Amani shifted gears to focus on sisal despite the policy aims of both Rechenberg and Dernburg. Tracing this dissonance between the colonial government and a research agency designed to bolster the economic productivity of the colony further bears out the relationship between business and science, on the one hand, and the government on the other.

The 1906 issues herald sisal's rapid expansion in the colony. The *Statistical Yearbook of the German Empire* illustrates this expansion, in the face of "indifference" on the part of officials, most dramatically. From 1905 to 1906, sisal exports from German East Africa increased in worth 52%; from 1906 to 1907, the increase would be nearly 60%.[64] Large plantations established approximately three to five years prior explain this sudden jump.[65] In *Der Pflanzer,* sisal—and its genus agave—tended to occupy 20-25% of its pages

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[64] *Statistiches Jahrbuch für das Deutsche Reich*.
[65] Richard Hindorf, *Der Sisalbau in Deutsch-Ostafrika* (Berlin: Dietrich Reimer, 1925).

following the rebellion. Corresponding with this increase was a decline of research into cotton production, based on the number of articles focusing on the crop in *Der Pflanzer*.[66] Mirroring this decline, the combined worth of all exported coffee and cotton fell to approximately 40% of the total value of sisal by 1907.[67] In 1906, the sisal plantations of the DOAG and the DAG began to pull their weight and offer the promise of profitability despite the lack of fanfare the crops had thus far received in comparison to cotton and coffee. The influence that these businesses exercised, at the expense of Rechenberg's and Dernburg's ideals, appears in Amani's publication.

In light of the increase in production, much of *Der Pflanzer*'s 1906 articles come across as a manifesto for sisal to the settler population. The first indication of this lies in a total reversal of the position of cotton and sisal in the intervening year. Cotton gets all of three mentions in the index, compared to dozens regarding agave and its varieties. Amani scientist Dr. K. Braun composed a lengthy multi-volume article covering every aspect of sisal. Stretching across four issues, his article "Agave, its Cultivation and Use: with Special Consideration of *Agave rigida var. sisalana*" strikes the same introductory tenor as Eismann's earlier commentary as a result of its sheer thoroughness. Braun takes over twenty pages to enumerate the different varieties of agave, their suitability to produce fiber, and the extent to which different varieties have become confused in common parlance. Finally, he settles on *Agave rigida var. sisalana* as the crop best fit for the environmental conditions of German East Africa.

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[66] *Der Pflanzer* (1905-1914).
[67] *Statistisches Jahrbuch für das Deutsches Reich*.

From September through December of 1906, each cover story continued the discussion of sisal, stretching from origins, varieties, and harvesting, through to business opportunities and its use abroad. The mundane details of the publication further illustrate Braun's meticulousness. The September cover article stretches from page 209 to 223; the October article picks up on page 225-240; the November article starts on page 241 and goes to 257; and the final continuation covers pages 273 to 304 and 307 through 310 in the December issue. As these numbers make apparent, *Der Pflanzer* accorded hardly any space to other crops during this period. The clarion call had become a deafening roar.

The change in the discussion paralleled physical changes in the colony and the progress made by businesses with large investments in sisal. During 1904 and 1905, sisal plantations continued to expand greatly. In Tanga, businesses erected facilities to process the sisal into fiber on the spot, built rails in the fields to facilitate harvest, and put the finishing touches on railways to connect them to the northern ports in Tanga and Pangani.[68] The DAG even went from a society in existential turmoil to one that began thinking about establishing a second sisal plantation. These developments were so substantial that the DOAG began to publicly discuss and worry over the availability of a labor supply in Tanga just before the outbreak of a rebellion would exacerbate it further—the labor question, and its significance in regards to the relationship between the government, business, and science will be discussed below (section 2b). These material changes played a substantial role in influencing the direction of colonial science.

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[68] BArch R 1001/496, pg. 166. *Geschäfts-Bericht der Deutschen Agaven-Gesellschaft für das Jahr 1903* (April 9, 1904).

The DOAG experienced significant progress in the years following Maji Maji. Even during the uprising, they increased their sisal profit from 370,000 to 544,000 marks at Kikogwe alone, and this increase did not even tell the full story. Kikogwe produced 887 tons of fiber while Muoa produced just 184; this is despite the fact that the latter only had 25,000 fewer sisal plants.[69] Half of the DOAG's plants had yet to reach maturity for harvest! The rate of new plantings only increased following Amani's backing. At the beginning of 1906, the plantation at Kange contributed to the explosion by planting 300,000 of its own seedlings. The result was that the year 1907 saw the DOAG's first dividend, 5%.[70] By 1909 this jumped to 6%, then 8% in 1910, and, finally, by 1912 the DOAG was paying a 9% dividend.

At Buschirihof, the DAG managed to go from firing its first plantation manager and almost losing a major source of investment to becoming a profitable enterprise in just a few years. This progress enabled it to pay its first dividend by the end of 1906.[71] This performance was followed by a doubling in profit by 1908, the increase of plant holdings to 3.5 million plants—rivaling the DOAG—and a doubling of the dividend by 1909 to 7%.[72] The DAG planned an additional plantation in 1909 with an additional two million plants. This success was by no means an isolated one. Dernburg's numbers corroborate the success of sisal

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[69] BArch R 1001/366, pg. 11. 1905 Yearly Report of the DOAG (May 1906).
[70] While sisal played a significant role in this, one cannot totally discount the DOAG's other, non-agricultural business pursuits in this development.
[71] BArch R 1001/497, pg. 5. *Jahresbericht der Deutschen Agaven-Gesellschaft für das Jahr 1906* (May 2, 1907).
[72] BArch R 1001/497, pg. 11. *Jahresbericht der Deutschen Agaven-Gesellschaft für das Jahr 1907* (June 25, 1908).

plantations across the board (*Appendix Three*). The DAG perhaps best characterized this state of affairs in a letter circulated in 1909 seeking to entice new investors: "German East African sisal, which finds its principal use in the rope industry, has conquered the market in a short period."[73] Not only did it conquer the market, but also the northeastern colonial landscape.

Comparing the landscape transformation wrought by plantation agriculture to subjugation fits the German East African context completely. Before the arrival of Germans in the area, African agriculture embodied the antithesis of the order through which Germans identified a landscape as being German, namely neatly delineated plots of land with even rows. In east Africa agricultural practices heavily relied on clearing practices to free up new land so that topsoil would not be exhausted, as well as slash and burn techniques. These methods served to reduce the spread of pests—including mosquitos, which carried a variety of diseases and infected both bovine and human populations—and to replenish exhausted topsoil. The resulting appearance of these indigenous farms appeared disorderly due to the practice of having them combined in one large, amorphous, and contiguous plot. This plot arrangement made it much easier to protect from pests and allowed for the combining of efforts to hoe the land—the more 'efficient' plow would devastate the thinner east African topsoil.[74]

In contrast, after Maji Maji, the plantations of the Tanga region consisted

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[73] BArch R 1001/497, pg. 18. Letter to investors (January 1909).

[74] James Giblin, *The Politics of Environmental Control in Northeastern Tanzania, 1840-1940* (Philadelphia: University of Pennsylvania Press, 1992): 19-21, 129-132; and Kjekshus, *Ecology Control and Economic Development in East African History*, 26-34.

of neatly organized plots of land, planted with rows, and with surrounding bush left intact to provide windbreaks for crops. While not ideal for the German East African ecology, this practice sufficed for the hardy sisal plant and proved imminently suited for capitalist production. In the immediate years following Maji Maji, sisal was king, the Tanga region was its realm, and the plantation economy was the means by which it assured its ascendancy. Despite the oft-repeated assumption that German colonialism was economically insignificant, at the cusp of World War I, the post Maji Maji economy was on an upward trend. By 1912, sisal accounted for 23% of German East Africa's exports.[75]

Sisal could not have arrived at a more opportune time for German businesses in Tanga. The scientists at Amani recognized this when they shifted their focus. While sisal helped sustain the plantation agriculture system in German East Africa by making it profitable following Maji Maji, this growth contradicted government policy in the immediate aftermath of the rebellion. Thus, conflict between businesses and the government seemed likely, especially given desires to avoid further unrest. One thing, however, was undeniable: the colony began to experience a steep rise in the quantity and value of its exports. This was something that neither planters, nor scientists, nor even the government could ignore, despite their sometimes-conflicting visions for the future of the colony following Maji Maji.

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[75] John Iliffe, *A Modern History of Tanganyika*, 147.

# 2. The Regional Particularity of Tanga

The overwhelming positives of this new situation notwithstanding, the government still sent mixed signals as to the economic direction it sought. As discussed above, historians have taken these signals at face value to show that the government was at odds with German businesses in the pivotal post-Maji Maji period. It is easy to highlight the tension at this juncture, as the success of sisal combined with unrest did not bode well for plantations, which had an ever-increasing need for workers. The labor situation threatened to affect the productivity of plantations and, in turn, the tax revenue that the government could expect. The fulcrum in this equation, in the minds of all of the actors involved, was the labor supply. The government was increasingly concerned with the unwillingness of Africans to work on German plantations and, therefore, hesitant to use any measures that Africans might interpret as coercive. While this cautious approach came into conflict with the aims of planters, their initial reasoning followed a capitalist logic, which prefigured their ability to seamlessly

transition to supporting sisal.

The governments' concern over labor issues did not prevent the rise of legislation supporting worker recruitment. In the Tanga region, businesses exerted enough influence to pressure the government into organizing recruitment on their behalf. This ability, however, was unique in the colony. The resistance by the government to assist in other areas of the colony helps to explain the historiographical focus on latent tension between German actors, yet the concentration of German agriculture in Tanga made these other voices marginal. While sisal's success bolstered its influence, Tanga's exceptional position in the history of the colony provided the base from which sisal's rise could redirect government aims in such a decisive manner. After some grappling, Rechenberg proved himself a pragmatist who, though wary of disturbing local African economies, believed "in the myth of the indispensability of the large farm sector to the colony's exports."[76] The government assisted a syndicate of Tangan planters in recruiting workers from throughout the colony despite the potential for disruption such a system possessed.

This chapter seeks to demonstrate the above-outlined patchwork labor policy on the part of the government by establishing the Tanga region as occupying a peculiar position due to the particularity in both its subjugation (compared with the rest of German East Africa) and its settlement. Firstly, it achieves this through an examination of the history of conquest in the region and the treatment of the area by officials prior to Maji Maji. This demonstrates the

[76] Berman and Lonsdale, *Unhappy Valley*, 504.

existence of tension between the government and Tanga, as well as a pro-business attitude on the part of Götzen (1901-1906). Secondly, this chapter considers the specific resolution of the labor question in Tanga under Rechenberg, arguing that it shows the same combination of tension and business support. Such perspectives give reason to emphasize continuity in the dominance of the capitalist paradigm at the height of colonialism.

## The Plantation Economy: Why the Tanga Region?

To set the stage for the discussion of how the labor question played out in colonial policy, one must first understand the unique position occupied by the Tanga region in the historical development of the colony, as well as the regard in which government officials held the area. To this end, a glimpse at the political events leading up to the period before sisal's rise outlines both the contours of German control over the area and the extent to which the German government lacked control due to the presence of concessionary companies. Later, despite the difficulties these businesses presented for Rechenberg's colonial administration, which first expressed an interest in limiting their spread, his government happily accepted the laurels of success that accompanied rising export figures. Official itineraries steered arriving dignitaries toward the Tanga region and the area became the face of the colony. Discussing these two arrivals in the colony, subjugation and sightseeing, will set the stage for understanding the odd mixture of conflict and concordance that characterized the rise of the plantation economy during Rechenberg's tenure.

In 1890, around the time of the DOAG's entry into northeast Tanzania, rulers in the area violently opposed any Germany presence. In the West Usambara Mountains, not far inland from the city of Tanga and across the valley from where Amani would stand, the chief Semboja sought to take advantage of the situation to gain the upperhand on his rival. After the arrival of German forces in February under Hermann von Wissmann, the chief raised the German flag without protest. Another chief in East Usambara, Kibanga, had previously refused gestures of goodwill from Semboja in the hopes that the invaders would help him expand his power in the region by unseating Semboja. However, with the change of course by the latter, he temporarily lost out. Eager to gain the upper hand and curry favor with the Germans, Kibanga began selling tracts of land to German planters in order to ingratiate himself with German authorities.[77] These lands would form the basis of the DOAG's land grant for the foundation of Amani.

Due to the effective control of concessionary companies over the Usambaras and the area's proximity to the coast (the latter facilitating the former), the area quickly became a site for development. The German East African Company invested large sums of money into creating plantations and, beginning in 1891, building the colony's first railway to connect plantations to the coast.[78] As illustrated by debates in the *Reichstag* during this period, coffee was supposed to redeem these large investments. However, as we have seen, coffee failed to provide a basis for making these plantations profitable and the economy

[77] Iliffe, *A Modern History of Tanganyika*, 99.
[78] Ibid., 126.

of Tanzania remained rooted in the nineteenth-century trade relationship between Zanzibar and the mainland.[79]

Nonetheless, the continued expansion of railways was essential to advancing German hopes to make the colony an economically productive space. Massive construction losses eventually compelled the government to take over operation of the limited Tanga Railway, but the Reichstag's reticence to fund further construction meant that the line only reached West Usambara by 1905 (129 km inland).[80] Thus, just prior to the Maji Maji Uprising, most of the colony remained inaccessible to German development schemes, with the Tanga region being a notable exception. In contrast to the control of concessionary companies over the Tanga region, a large number of *Grenzwildnisse* characterized the patchwork nature of authority in the colony.[81]

Lack of penetration into African economies was not the only limiting factor on the authority of the German colonial government. An important side effect of the slow development towards centralization lay in the unprecedented power and influence exercised by the DOAG and other companies in the northeast of the colony. Far from 'German' authority spreading in Tanga, that of concessionary companies over-shadowed the colonial government in the region. The establishment of Tanzania's first rail line by private interests was certainly not the smallest of the feats achieved by investment groups in the colony. From transport to employment to landownership, settlers who came in representation

[79] Ibid., 128.
[80] Ibid., 135.
[81] Ibid., 119.

of German investors brought money and could operate with a fairly free hand throughout much of the 1890s. This freedom would reverberate in the relationship between German businesses in the northeast of the colony and the colonial government.

While probably most apparent in relation to the labor question (*Arbeiterfrage*), discussed below, a number of considerations bear out the special position of Tanga in the period leading up to and during Maji Maji. In particular, the outside interest paid to the Tanga region reflects the extent to which the area outpaced development elsewhere in the colony. Dignitaries who paid visits to the colony usually would request an itinerary from the government or provide a few of their own in order to get some advice from the colonial administration. One such trip, taken by Herzog Johann Albrecht in 1906, illustrates a pattern repeated over and over in the travel plans of other visitors. The duke submitted two itineraries to Governor Götzen in order to get his advice: should he head south to Lindi and Kilwa or focus his trip on the north? While continued fighting may have played a role in Götzen choosing route 'B', he justified his selection on the basis of it providing the most time to visit the plantations surrounding the Usambara Mountains.[82]

The Tanga region, in general, remained a fixture on every single itinerary submitted to or suggested by the colonial government. Even more telling, trips into the region were always accompanied by a list of plantations to visit, whereas

[82] BArch R 1001/298. Exchange between Herzog Johann Albrecht and Adolf von Götzen (1906).

this was not always the case for visits to other areas of the colony. Tanga was an area of European business and science, a site of advancement and progress that representatives of government, business, and science in the colony wanted to share with the outside world as emblems of their success. Both before and after Maji Maji, the northeast remained the central feature in German East Africa. The Foreign Office cited the modern layout of the plantations as a central reason for visiting the sisal fields of Amani and the DAG.[83] The government enshrined this route in its official program for German politicians visiting the colony, issued in 1906. Though many would visit the south of the colony, the featured section focused on the plantations in the northeast. Thus, despite disagreements over the future of the colony, the face that German actors in the colony wanted to project abroad was not a matter of debate.

## Labor Policy Prior to Maji Maji

The importance of the northeast of the colony in the economic plans of the colonial government transcends periodization, as did tension between it and Tanga. While historians highlight the tension of the post-Maji Maji period, there was never a time that the colonial government did not wrangle with the Tanga region on issues of labor. Wissmann set the baseline when he rejected the DOAG's concessionary rights in the Tanga region, which had resulted in massive

[83] BArch R 1001/298. From Kaiserlicher Gouvernement Deutsch Ostafrika to the German Foreign Office (August 23, 1906).

sell-offs of land in the area for paltry sums.[84] The situation inherited by Wissmann and, to a certain extent, propagated by him and his successors, however, remained highly advantageous to business interests. While it is certainly true that businesses in the northeast pursued their aims with a freer hand earlier on, it is not true that the government was always happy with this state of affairs. As a result of the power that companies were used to exercising in the region, however, the government's room to maneuver was constricted. This situation served to perpetuate the unique economic position of Tanga in the period both leading up to and after Maji Maji.

Before the Uprising, correspondence concerning labor deals almost exclusively with Tanga. The tone of these letters reveals that the government was well aware of the strength of German businesses in this area. The existence of tense language about labor in the years before the uprising similarly suggests that historians should not overlook the degree of collaboration amid such language. This applies to the relationship between business and government both before and after the Maji Maji Uprising. It is instead important to emphasize the continuity of mutual aims in regard to German East African development, especially in light of the continuity in support of the plantation economy.

From the early stages in the development of the colonial economy, correspondence concerning the worker situation exists from the Tanga region and from nowhere else. A lone letter from 1897 comments on concerns that the

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[84] Illife, *A Modern History of Tanganyika*, 126.

present labor supply might be insufficient.[85] The lack of correspondence preserved from other areas of the colony at this time is telling. At later dates, exchanges between Tanga and the government indicate that the region's particularity allowed it to exercise powers that other areas could not. Letters reveal that Tanga officials could increase their number of workers at will as well as lean on Amani in lean times for the procurement of additional workers. While the central government certainly could put limits on this if they saw fit, correspondence from other areas show that not everyone had the same degree of autonomy.

This autonomy, and attempts to limit it, became a cause of strife between business and the government. In late 1902, a district officer from West Usambara took measures that another official reported to the central government. This was then passed on a month later by the government to the Foreign Office with an explanation of the government's position. Due to a need for additional workers on European plantations, the Tanga district officer decided to increase the number of workers that the government required each village to offer for labor. The reporting of the situation by the central government shows some early signs of tension between the economic goals of the settlers (dominated by large plantation interests) and the political goals of the government. They both sought similar ends (profitability), but the government had to consider the potential for unrest that coercive measures could bring about.

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[85] BArch R 1001/126, p. 46. From Westdeutsche Handels- und Plantagen-Gesellschaft to the Koloniale Abteilung des Auswärtigen Amtes (March 25, 1897).

To this end, the government claims that the root cause of this increase lay in mistreatment of workers by plantations in the northeast. The government official contends that the actions of local administrators were only made necessary by the negative view that many Africans take of plantations and that this is connected to "the growing reports of harsh treatment on the part of plantation owners."[86] For the local Tanga officials, the plantation leader at Ngua, Herr Mismahl, serves as the exemplar of worker abuse. According to earlier correspondence, he had been a persistent problem due to his well-positioned brother in Berlin. In a 1902 letter to the central government, the Tanga official Herr Sperling reported, "the Ngua plantation is the only plantation on which the labor question has not come to a peaceful conclusion."[87] The biggest difference between the two reports is how the government tries to spread the blame, seeing abuse as endemic, while local officials present it as the result of exceptions.

The government's desire to spread the blame underlies their desire to have firmer control over labor policy and prefigures language that would only grow more incisive later. A government inspection trip in response to the 1902 letter resulted in a twelve-page list of worker mistreatments. These pages reveal the frequent problems with payment, as well as the continuation of corporal punishment. It concludes that many workers did not want to work because of a fear of being caned or not receiving their full wage.[88] For their part, the planters

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[86] BArch R 1001/126, p. 47-48. A letter from the Kaiserlicher Gouverneur von Deutsch-Ostafrika to the Auswärtige Amt (January 14, 1903).
[87] BArch R 1001/126, 49. A letter from the Kaiserliches Bezirksamt Sperling in Tanga to the Kaiserliches Gouvernement Daressalam (December 20, 1902).
[88] BArch R 1001/126, p. 58.

contend that workers not accustomed to working for wages often did not work the requisite amount of time or sent others in their place. In the end, after a lengthy correspondence, Governor Götzen decided to award sixteen workers a total of 11 rupies 16 pesa.[89] While serving as a message on the treatment of workers, the measure did nothing to erode the power of the large plantation holders in the Tanga district.

Though these dates precede the coming to power of Rechenberg, the stances taken by the central administration remain consistent under both regimes. The difference in additional cases, however, was that other districts lacked the power to do much about the labor situation in the face of consistent government displeasure with the treatment of workers. Over the next eight years, particularly during Rechenberg's tenure as governor, the administration would continue expounding its position by limiting the authority provided to other districts. These attempts were not new to Rechenberg's regime. Despite the continuation of efforts to limit the influence of businesses in Tanga, the reformation of labor in the region displays the indelible mark of industry. This prehistory of government-business relations provides the context through which we should interpret the apparent contradictions in Rechenberg's policies.

## Post Maji Maji: Reformation and its Limits

[89] BArch R 1001/126, p. 62. Letter from Götzen to Auswärtiges Amt (Oktober 30, 1903).

The lynchpin of the planter-government relationship, as well as of the colony's future profitability, was the development of an agreement to ensure an adequate labor supply for the northern plantations. In the historiography, the lack of consensus for agreement provides the basis for which latent tension existed between German actors in the colony. The volatile increase in sisal production, however, was not an issue that either side could easily ignore. It promised to turn more Africans into laborers for the market and place additional stress on the productive capacities of their communities. Labor needs promised to reach unheard of proportions by 1910. Neither businesses nor the government could ignore the exigency of forging a solution in light of the dominance of export figures in the logic of German colonial actors.

The negotiations surrounding labor serve as a litmus test for the extent of government dedication to indigenous agriculture as an ideal. The administration, led by Rechenberg during this period, proved itself far from idealistic, taking a pragmatic approach to the labor situation in the Tanga region. That this pragmatism materialized in measures to bolster the labor supply in Tanga and eschew such measures elsewhere demonstrates how the region's unique position serves to diminish the idea that the post-Maji Maji rise of sisal exhibited anything other than the strength of the capitalist paradigm over business-interests and the government.

## Dernburg's Report

In the historiography, Maji Maji serves as a watershed in more ways than one. Interpreted as a proto-nationalist uprising in early writing, more recent research has revealed that the rebellion actually consisted of a number of struggles, and a clear accounting of the sides and parties to this conflict remains fraught.[90] Its primary effect on German policy, however, is clear. While the KWK arose specifically to explore the possibilities for the extension of cotton cultivation, they began to advocate an abandoning of the cotton plantation model as "plantation cotton showed that capital and technology alone made little impression on Tanganyika's environment."[91] Presumably, an awareness of impending labor issues, prior to exacerbation by Maji Maji, contributed to this decision, but the problem became acute by 1907. At this time, Rechenberg sent Dernburg on a trip through the colony in order to collect data and begin the process of reform.

The rebellion strengthened the resolve of those who thought an expansion of plantation agriculture was the wrong strategic move (at least in the short term) and inspired Dernburg's report on the economic situation in the colony. Governor Rechenberg's economics advisor Dernburg, considered a nuisance by many settlers due to his support for indigenous agriculture, provides an important and telling counter-example to the usual trip through the colony. While continuing to keep an eye on cotton, he invited a bevy of industrialists and experts with him on a trip through German East Africa.[92] Dernburg's goal was to

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[90] Giblin and Monson, *Maji Maji,* 181.
[91] Iliffe, *A Modern History of Tanganyika*, 145.
[92] BArch R 1001/32. Hermann Schubert to Richard Dernburg. February 18, 1907.

produce a report on the economic situation, both real and potential, which he found.[93] The novel position forwarded in the report and that made him the bane of many German East African planters, was that the government should support indigenous agriculture in its reform efforts.

Dernburg's vision of the colony, expressed in his report, divides it into three sectors. His divisions indicate the political and economic ramifications that regional particularity could have. First, he names the area around Usambara and Bagamoyo—the northeast of the colony—the area of the plantation economy.[94] The region surrounding Kilimanjaro he calls that of small 'white' agriculture. Finally, the central part of the country is the area of indigenous agriculture. He sees the central section as focused on subsistence production. Much like the large planters that came before him, however, he also had an eye for the landscape transformation that market production could bring to the area.

In order to foster production in the central area of the colony, Dernburg cites the extension of a rail line as the most important step towards facilitating the growth of the indigenous economy. Secondly, he calls for the creation of an agency designed to encourage the cultivation of cash crops amongst Africans. This encouragement was even extended to include a school for teaching cotton cultivation in the Rufiji region. Dernburg's approach toward the central area of the colony provides a telling contrast to the situation in the north, a fact that will become particularly pertinent to the discussion of the labor policy that the

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93 BArch R 1001/300. *Bericht über eine vom 13. Juli bis 30. Oktober 1907 nach Ostafrika ausgeführte Dienstreise* (November 21, 1907).
94 BArch R 1001/300, pg. 1.

government developed, in part, as a result of Dernburg's trip.

The desire to move away from a plantation and settler-based economy emerges strongly in his writing. Dernburg does not obfuscate his opinion when he claims, "All white economic activity brings whites and blacks closer together … and, where this happens, it is the germ and the cause of great conflict."[95] He does not just blame white planters, but contends that the government is at fault. Rather than a vote against any German presence in the colony, these statements can best be seen as a call for caution and restraint going forward on the part of all Germans in the colony. In the aftermath of war, Dernburg argued that the best remedy would be to advance the economic position of all in the colony and to create a labor system that more fairly treated blacks.[96]

While supporting indigenous agriculture, however, he also does not hold it to be the sole solution to making the colony profitable. Dernburg concedes that raising taxes, particularly on food, will bring Africans into the fold of the state by making them workers and that this would be a positive development.[97] What seems novel in his approach, and to a lesser extent Rechenberg's approach, was his willingness to entertain that African production could become as valuable to the colony as settler production—a reasonable plan given the miniscule flow of Germans into the colony and the difficulties that such settlement had already brought about.

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[95] Ibid., 6.
[96] Ibid., 8-10.
[97] Ibid., 14.

His support of indigenous agriculture at a time when the labor question was becoming more intense in the north was certainly a source of tension. However, Dernburg did not condemn plantation agriculture in his report, but only advocated that planters improve their treatment of workers and pay some tax on their exports towards the development of infrastructure. Officials were well aware of sisal's success at this point. Dernburg quickly moves from talking of the many different disappointments with plantation agriculture to the strong statement that "Sisal is a culture that plantations must always keep in reserve."[98] His call for economic experimentation in the central part of the colony notwithstanding, his report reveals his pragmatic approach to the existing plantation agriculture system, despite the real venom with which settlers regarded him as a result of his views on Africans.

## Rechenberg and Dernburg's Pragmatic Approach to Reform

Dernburg and Rechenberg supported the extension of railways so as to encourage an expansion of agriculture and enable more Africans to become taxpayers; they also identified education as the key to turning Africans into 'European' farmers.[99] Both also repeatedly rebuffed calls by settlers for an increase of taxes on Africans for the purpose of coercing individuals to work on

[98] Ibid., 36.
[99] Ibid., 136.

plantations.[100] Both, however, served during the period of greatest plantation growth, assisted with labor recruitment, passed taxation measures on Africans, and facilitated the appropriation of additional lands. Despite their different vision for the future of the colony, the only way to reconcile the reform measures sought by Rechenberg and Dernburg with the actual course of development during their tenure is by underscoring the unique economic position of businesses in the north of the colony and the capitalist mentality shared between them.

Rechenberg's rule is seemingly littered with a number of inexplicable policy reversals. From a distance, Rechenberg's decisions seem at stark odds with some of his and Dernburg's statements regarding their policy aims. Historian John Iliffe makes note of some of the policy U-turns, but he does not reflect upon their significance beyond mentioning their occurrence. On the subject of land appropriation, a sticking point for many who rebelled, Rechenberg extended Wissman's approach to the DOAG. Whereas previously colonial law required settlers to cultivate land in order to gain possession of it, enforcement remained sporadic, particularly under Götzen. Rechenberg, on the other hand, "regarded settlement as experimental, but privately hoped it would fail."[101] This seems minor at first; after all, politicians can moderate their private views for public utility. However, Iliffe argues, "He obstructed settlement in many ways, raising land prices, insisting on strict observance of leasehold

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[100] Iliffe, *A Modern History of Tanganyika* and Bald, *Das Forschungsinstitut Amani.*

[101] Iliffe, *A Modern History of Tanganyika*, 142.

provisions and regulating the settler's treatment of African laborers."[102] From these developments, Rechenberg appears to be firmly against European encroachment on African lands and at odds with the planters.[103]

Then there is an altogether different Rechenberg. In 1907, he supported the annexation of much of the *shamba* belt around Kilimanjaro (an area just west of the Tanga region); by 1911, settlers there occupied 200 square kilometers, but only cultivated sixty square kilometers.[104] As a result of this appropriation, many tribes in the area lost access to grazing lands and localized famines ensued.[105] Just a few pages later, Iliffe again presents Rechenberg as intransigent on the issue of appropriation, but sets him against settlers who sought a more democratic, 'German' government, as opposed to Rechenberg's apparent desire for the development of an African based economy.[106] Despite this desire, he allowed the implementation of a card system that required Africans to work thirty days per four-month period at a fixed rate.[107] Though Iliffe and others say much about Rechenberg's more conservative development policies following Maji Maji, perhaps his 'true' position is opaque or irrelevant. "The supply of raw materials to Germany . . . is the object', Rechenberg insisted, '. . . and whether it is achieved through plantation agriculture or indigenous cultivation is a secondary

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[102] Ibid., 142.
[103] Sunseri echoes this view in *Wielding the Ax*, 64-65.
[104] Iliffe, *A Modern History of Tanganyika*, 144.
[105] Ibid., 144.
[106] Ibid., 149.
[107] Ibid., 150.

consideration."[108] Above all, Rechenberg appears to be a pragmatist.

By looking at Rechenberg's policies in light of the history of the Tanga region, there is little surprise that he supported a card system there or supported land appropriation in the surrounding area while also developing a reputation for defending Africans over settlers. By focusing on the particular course that conquest took in its early stages, later differences in settlement patterns and policy initiatives appear to clear up the contradiction and tension posed by sisal's explosive growth. As head of the colony, Rechenberg's aims could not help but confront the recent success of the plantations. His capitalist ideals, discussed below, always mediated his ideals as governor.

Examining the government's dealings with the DOAG and other plantations from the north of the colony bears out this ambivalent picture of Rechenberg. While attuned to humanitarian matters, Rechenberg and Dernburg clearly had a keen interest in developing the colony along capitalist lines. However, with Dernburg's background in the KWK, the impression among planters was that he played the primary role in creating divisiveness. Returning from his trip in late 1907, Dernburg set in motion his plans to reform the German East African economy. The majority of extant sources reflect the proliferation of the plantation economy, the exacerbation of the labor question that this entailed, and government desires to reach a peaceful coexistence in the colony. The resulting compromise did not perfectly reflect the ideals of either side, but they did reflect both sides' interest in increasing productivity.

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[108] Ibid., 154.

Immediately following Dernburg's trip, such an outcome, admittedly, did not appear likely. Settlers railed against the negative consequences that they feared would result from Dernburg's influence. Newspaper articles warned of his nefarious influence. One industrialist worried that "the economic undertakings of Europeans will soon go to ruin."[109] Many feared what he implied should occur with the statement, "All white economic activity brings whites and blacks closer together . . . and, where this happens, it is the germ and the cause of great conflict."[110] Others took the milder view, complaining to Rechenberg that Dernburg dismissed their claims out of prejudice without fully considering them.[111] Rechenberg ultimately listened to these complaints.

Despite the settlers' great fears, Dernburg's correspondence with planters does not evince any insatiable aggression towards German businesses, but a strong conviction that capitalist principles would best develop the colony's economy. Writing in 1908, his frustration at calls for government assistance with the labor question erupts into full moral didacticism. Rather than confronting the issue head on, he begins by considering alcohol imports to the colony, scolding planters with the suggestion that "their efficiency would greatly increase through moderation."[112] Not only that, but he claims that the 1500 marks spent on alcohol yearly per person would cover a year's wages for ten black workers. A more moderate existence would also improve planter-African relations, as planters would short workers less if they had more money on hand.

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[109] BArch R 1001/120. Cut out of article from November 24, 1907.
[110] Ibid., 6.
[111] BArch R 1001/120. Letter from January 2, 1908.
[112] BArch R 1001/125, pgs. 69-72.

These personal reproaches then turn into a clear statement of Dernburg's economic views, representative of the KWK and, to a certain extent, Rechenberg's own economic stance: capitalist principles prevail. In his writing, he comes off as surprised by the expectation of assistance in finding workers, noting that the same principles operate in Africa as in Europe: "Who treats his workers well receives workers, in Africa just as in Europe."[113] Violating this economic stance would not be a small error, in Dernburg's view, but would result in "grave consequences, even spiritual ones, for the development of the colony."[114] He applied this same attitude to plantations losing liquidity due to choosing crops that neither perform well on the world market nor are suitable for the land. First and foremost, Dernburg advocated for a free market to determine the outcome of development rather than the government making this decision from above.

Dernburg's response, along with his trip, constitutes one of the first steps in the debate over the reformation of the colonial economy. A quick glance at the figures relating to the explosive growth of sisal plantations reveals how important reformation of labor in the colony was (*Appendix Three*). These figures were Dernburg's own projections, demonstrating his own keen interest in sisal's cultivation. This growth meant that the labor force would need to expand many times over in order for it to satisfy the needs of northern plantations. The looming requirements of plantation agriculture became the pressing question following Maji Maji.

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[113] Ibid.
[114] Ibid.

The planters of Tanga were well aware of their situation and, in late 1906, the Association of German East African Plantations (VDOP), which represented plantations in the northeast, formed a syndicate in order to collectively address it.[115] The DOAG and DAG were two of the primary voices in bringing the Syndicate about. In 1906, a letter to the Foreign Office outlines the situation as they saw it. At the time, plantations in the north employed 11,340 workers. With the amount of sisal yet to reach maturity, as well as the expansion of other crops, the projected number of workers for 1909 was 39,720 and 53,500 for 1910.[116] However, only 5,500-6,000 workers actually lived in the Tanga region. Importing contract workers from Asia also could no longer address these shortfalls.

There were many opinions on the part of planters on the approach that they should take with respect to the government. All predictably sought legislation advantageous to their interests. These opinions were of moderate to extreme varieties. On the more extreme end, some planters were dissatisfied with Rechenberg's raising of taxes on Africans and thought that commuting the tax to a labor requirement was the only way to alleviate their situation.[117] However, actions on the part of the Syndicate indicate that a moderate majority

[115] BArch R 1001/19, pg. 4.
[116] BArch R 1001/19. Letter to the Foreign Office (April 19, 1906).
[117] Ibid.

controlled its direction. The moderate opinion won out early on and the government appeared more than willing to listen to the needs of the group.[118]

The Syndicate, and the work that it undertook, was something that its members thought should occur in close relationship with the government. Realizing that the government was not going to directly provide them with workers, as current government officials saw this as non-competitive coercion, they sought to create their own agency to work in tandem with the government for this very goal. This sentiment becomes clear in light of an earlier statement by the VDOP that, "We hold it as an urgent necessity that the undertaking of worker recruitment can only be successful if carried out in close connection with the government and are, therefore, decided to seek the appointment of a colonial official to that end."[119] The creation of the Syndicate by the VDOP led to the partial realization of their requests.

Correspondence between Rechenberg and the VDOP produced some success as the government appointed officials to assess the availability of labor in nearby districts and the KWK sent some its own representatives. One government official went to regions in the center of the colony to both assess the situation and recruit workers.[120] This marks the achievement of a middle ground between the two sides. The government was clear that it was not going to use

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[118] BArch R 1001/19. "Steuerpolitik und Arbeiternot in Deutsch-Ostafrika," *Deutsch Ostafrikanische Zeitung* (June 15th, 1906).
[119] BArch R 1001/19. Letter from the Association of German East African Plantations to the Foreign Office (March 1906).
[120] BArch R 1001/19. Letter from German East African Government to the Foreign Office (August 1906).

further political or military means to force Africans to become laborers, but it was more than willing to collaborate with planters to find new sources of labor.

The new government labor official responded, listing the main impediments he saw to the development of a robust labor force. He argued that the development of the colony's transportation network would do much to improve the labor situation in the north (the transportation system for which Dernburg advocated would not only assist African agriculture).[121] It would enable workers to more easily extricate themselves from the conflict-ridden south and would empower seasonal laborers to venture farther from home. Further, he argued that the relationship between the worker and the employer must be more clearly enshrined in law with bodies created to more readily enforce contracts.[122] Once the expectations of the workers and employers were clear, only then could there be a truly positive relationship between the two. Finally, he upholds the importance of the Syndicate, and his newly-created position, in that such bodies were central to organizing an otherwise messy recruitment system.

All of these points would be the major themes in correspondence regarding the labor situation in the years to come. While they clearly concern the development of the colony as a whole, the author only refers to their importance for the north of the colony. The relationship between the government, on the one hand, and the VDOP and Syndicate, on the other, was the decisive factor in the mind of this official. This relationship was also strengthened by the stationing of

[121] Ibid.
[122] Ibid.

a VDOP representative in Dar-es-Salaam to work with the government to find answers to these questions. The crucial issue of transportation would remain, but the government certainly invested much hope in the central railway, which would only be completed just before the outbreak of WWI. The codification of rules surrounding seasonal labor on plantations, dispute arbitration, and the organization of worker recruitment became the main issues for which resolutions were sought during Rechenberg's tenure. Dernburg's invectives aside, the beginning stages of a compromise solution were in place.

As far as the VDOP was concerned, the pressing issue of 1907 was ensuring the continued existence of a shared body for the organization of worker recruitment. Rechenberg had his reservations about the Syndicate—workers could not choose where or with what plant they could work—but he also recognized the need for such a body in order to lighten the costs of recruiting workers from the interior of the colony. He concluded that, "a regular supply of workers will be necessary for the continued growth of plantations and to secure this extremely important part of the economic life of German East Africa."[123] He balances this sentiment with further reflections that the Syndicate could become a centralized body for worker protection, as well as recruitment. His opinion on centralizing recruitment poses a stark contrast with the language used by Dernburg—who himself proved to be rather moderate in his desire for reform—as well as with the focus by historians on the degree to which the government and businesses came into conflict during his tenure.

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[123] BArch R 1001/19, pg. 166. Letter from Rechenberg to the Foreign Office (November 1906).

## Labor Recruitment Outside of Tanga

Although the centralization of labor recruitment may have lent itself to a gradual homogenization of the way officials governed the colony, some correspondence between Rechenberg and an assortment of businesses from the Rufiji district displays the different outcome that could result when the government dealt with areas outside of Tanga. Correspondence between Rechenberg and the German Colonial Tanning and Dye Society (DKGFG) in 1909 and then again with the Rufiji Economic Society (RWG) in 1911, best outline Rechenberg's more idealistic position when operating outside of Tanga's regional peculiarity and outside the reach of a concentrated group of German businesses. Rechenberg forwarded both pieces onto the Foreign Office along with his thoughts on their complaints concerning a lack of government assistance. The Rufiji group lobbied the colonial government to increase the number of laborers made available to them and to lessen government control over the operation of their businesses. Contrary to their desires, however, Dernburg successfully advocated for a cotton school in the region to begin developing indigenous agriculture in Rufiji—a stark contrast to results of correspondence between the government and Tanga businesses. All the while, Rechenberg continued to espouse capitalist principles as the rationale behind the government's decisions.

Responding to the arguments of the DKGFG and the RWG, Rechenberg calls for a softening of the position of the Rufiji group's positions in order to maintain peace with Africans. Taking a more forceful stance, he also requested

them to retract their complaint that the government had not provided enough assistance in the light of 'a complete lack of evidence' for their claims that such assistance would be advantageous in the long run.[124] He forwarded the familiar governmental stance that better treatment of workers would alleviate the shortage confronting Rufiji planters and be the more economically and politically viable solution.[125] Further, much like in regards to Tanga, he contends:

> The view of the society, that only the men in the Rufiji Delta can work, is not a view that I share; when neither the necessary number of workers in the area nor better pay for the strenuous and dirty work are obtainable, they must follow the example of other businesses and seek to advertise for workers from other areas.[126]

Conspicuously absent from this statement is any offer of government assistance in terms of recruitment and organizing. The Rufiji businesses' lack of organization and influence hurt their ability to have their claims considered and respected as we saw occurred quite easily for the VDOP.

On the contrary, the government sought to implement some of its reforms in the area. In particular, as noted above, they set up a school to

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[124] BArch R 1001/126, pg. 86. Rechenberg to Reichskolonial Amt (October 12, 1909).
[125] BArch R 1001/126, pgs. 80-82. Rechenberg to the Reichskolonial Amt (September 20, 1909).
[126] BArch R 1001/126, pg. 86. Rechenberg to the Reichskolonialamt (October 13, 1909).

supply seeds and teach the local inhabitants how to cultivate cotton.[127] This shows that they did not consider European commerce in the area to be a viable option. Rechenberg believed the DKGFG and RWG to be forwarding an essentially non-competitive agenda. He felt that difficulties in the day-to-day operations of plantations in Rufiji were the result of their own actions:

> If a portion is held captive and beaten, if another is mistreated with 15 whippings, if a third is regulated through slaps, if a plantation leader holds indigenous women in their tent for four hours . . . so may the people in question have no wonder when they are unable to obtain but a few workers from the area.[128]

If there was one thing the government under Rechenberg would not tolerate it was measures that hindered the development of the colony along capitalist lines. While there were cases of abuse that Rechenberg worked to alleviate in the Tanga region, no such instance in that area received nearly the same level of derision in response. A response to the RWG further bolsters the view of this difference in treatment. When the RWG requested a commissioner to oversee labor in the area, Rechenberg justified the lack of one by arguing, "the plantations in Rufiji are currently not important enough to justify the positioning of a permanent

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[127] BArch R 1001/126, pgs. 118-123. Rechenberg in response to *Denkschrift des Wirtschaftlichen Verbandes Rufiji.*

[128] BArch R 1001/126, pg. 118. Letter from Rechenberg to the Foreign Office (May 10, 1911).

Distriktkomissar in the area."[129] It seems clear from such statements that, while Rechenberg may have shared many opinions with Dernburg and that this could have been a large source of tension between the government and settlers, Rechenberg was far from opposing the development of plantations in general. Rather, he was against the sinking of government funds into ventures that had not proven themselves productive on the market.

[129] Ibid.

# 3. Amani, the Government, and the Paradigm of Producing for the Market

The paradigmatic trend suggested by the coalescence of support around sisal was not a one-off occurrence. Eismann may have sought a 'gold mine' and many may have clung to the hope of cotton, but neither the government nor Amani limited themselves to a single path in their support of economic productivity. Three sources provide ample evidence for the way in which Amani and the government repeatedly collaborated, or at the very least coincided, in their pursuit of commercial aims. First, an early sign of this cooperation appears in the correspondence surrounding one of the first serial publications produced by Amani for professionals: *The Report of Agriculture and Forestry*. Further, Amani produced a yearly report on conditions at the institute and the work accomplished; this report extends the pragmatic, economic focus of Amani's relationship with the government further into Rechenberg's tenure, providing greater grounds for continuity. Finally, literature produced on agriculture by

both scientists and politicians shows the degree to which capitalist objectives suffused the perspective of both. Examining the writings of individuals within the colonial context brings down to a personal scale the shared mentality evidenced in larger economic trends.

## A Relationship with Global Aspirations

A letter from Governor Götzen written on January 5, 1904, demonstrates a dynamic of the early relationship between the government and Amani.[130] While the *Report on Agriculture and Forestry* existed earlier, Götzen wrote to turn the editing of the publication over to Amani along with the attendant finances. The exercise of this power shows that the colonial government did have some control over the day-to-day operations at Amani, but also that there was a mutually supporting relationship. The material in the *Report* carried important information for the colony and Götzen felt that Amani had advanced enough by 1904 to warrant profiting from its expertise on economic matters relating to forestry and agriculture. Thus, from an early stage, Amani moved in a practical direction.

This relationship would only blossom under Götzen who himself had been in charge of handling much of the correspondence surrounding the publication of the *Report* before it was handed over to Amani. It is more than likely that

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[130] KNADS, Amani Records - Microfilmed for Syracuse University by Kenyan National Archives Photographic Service, Reel 1, "Correspondence with German Government", pg. 4.

someone was in charge of conveying the daily matters to Götzen who then signed off on exchanges. It is, however, significant that all business relating to the journal was sent to and came from the "Imperial Governor of German East Africa." This fact displays how intertwined research and governance were for the colonial project in German East Africa. These were far from separate concerns. The occasional addressing of letters from Amani out of Dar-es-Salaam (but usually out of the Tanga Port), where previous government correspondence relating to the *Report* originated, also suggests that a practical relationship continued after the turnover of the day-to-day operations to Amani.

The first sign of tension comes in a 1906 letter from Götzen concerning the *Berichte*. The grounds for the letter were the journal's increasingly high production costs. In the letter, Götzen speaks directly to the conflict between practice and 'pure science'. He argues that the publication should not expand its scope too much by including information that is only of scientific interest, but keep to its original mission of the publication, which is "intended for the practitioner in the first place."[131] While one may take this as a sign that there is some substance to the tension pointed to in the historiography, it is rather contained. First, the letter does not attack 'scientific' research, but only seeks to give more hands-on guidance for a particular publication from the Institute. More importantly, this is a publication that Götzen was involved in from the beginning and personally oversaw. The letter demonstrates an interest in working with the Institute as much as it does against it.

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[131] Ibid., 89.

The only response from Amani came from then leader of the Institute, Dr. Franz Stuhlmann. He complained that taking on additional duties had increased costs, but also that the limitation of the journal's publication to German firms only is responsible for the high costs. He concludes that the transfer of the publication to a firm in Tanga or the self-publication of the journal by the Institute would cause prices to fall.[132] He also points out the obvious benefit in the shorter turn-around times in turning manuscripts into publishable pieces were a local publisher utilized. He too appeals to the economics of the matter.

Götzen even requested copies for the purpose of providing them for foreign visitors.[133] This displays the degree of pride that Götzen felt with his own work and the current work of Amani for advancing the colony. The rest of the *Berichte*'s correspondence corroborates such an interpretation of the publication's position. Amani stayed in contact with and provided materials for many other research stations from Auburn, Alabama, to India, to the Dutch East Indies, to Hawaii. Historian Andrew Zimmerman has already written about the important connections between cotton production in German Togo and the Tuskegee Institute of Alabama. In his work *Alabama in Africa*, he argues that international efforts to enter the cotton trade at the end of the nineteenth century presaged the age of globalization.[134] Togo was certainly no isolated incidence.

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[132] Ibid., 92.
[133] Ibid., 60.
[134] Andrew Zimmerman, *Alabama in Africa: Booker T. Washington, the German Empire, and the Globalization of the New South* (Princeton: Princeton UP, 2010).

Far from being a colonial backwater, the Amani Institute—and German East Africa—was intricately connected into the global economy and the larger global network of knowledge, as evidenced by its close relationship with the colonial government.

## Pragmatism over Idealism

The yearly report corroborates the existence of a positive working relationship between Amani and the government towards the achievement of economic aims. The reports generally begin by relaying the mundane details: a recognition of who is the current director, the enumeration of a list of personnel changes that occurred, and a discussion of employment that wends down the hierarchy (ultimately to the African laborers). In the second report (1903-1904) one can see the development of vibrant group at Amani that included not only German researchers, but also Indian gardeners and a workforce of 230 Africans, namely from the Wanyamwezi tribe of the Tanga region.[135] Unsurprisingly, the largest portion of the yearly report is an account of the scientific research performed in the previous year. The abundance of scientific jargon and measurements of minutiae quickly differentiates it from *Der Pflanzer*. Despite a greater breadth in the reporting of research than in its publication, the focus on *Nutzpflanzen* (literally 'useful crops') exposes the influence of the aims of both its government and business funders.

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[135] *1903/1904 Amani Yearly Report*, pg 205.

Once beyond the operational details of the report, the prevalence of scientific jargon not withstanding, the sway of government becomes clear. The pages go on at length about the ways that have proven the most effective to take care of insects, varieties that are resistant to pests, and plant diseases. Far from being a 'how to' of German East African agriculture, the meandering account of different methods establishes the report's scientific and official aim. A section on chemistry further removes the publication from the purview of the settler or administrator. One need not, however, wade through the dense thicket of scientific discourse to see that a close relationship with the German government guides Amani's research. *Nutzpflanzen* play a central role in the activities at the Institute.

According to the report, the government provided a list of plants on which the Institute should conduct further research given the benefits that those plants promised.[136] The research section subdivides into a variety of smaller sections that range in focus on specifics such as plants that provide a windbreak for crops, to plants that produce spices, to plants that produce dyes, to rubber producing trees, and so on. What these sections have in common is an organizational logic that depends on the productive ends to which the plants could be put. This is all the more telling given that the audience for this report was other scientists and officials. An economic logic dominates the arrangement.

The yearly report reveals a greater diversity in focus than does the above-considered *Der Pflanzer*. The topics ranged from cocaine to melon trees to using

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[136] Ibid., 210.

plant material as a coagulation agent, and that is only considering the publications of A. Zimmermann. Amani assembled a group of scientists with diverse interests and many talents. A narrative of pure science in tension with the demands of economic necessity becomes more believable upon closer examination of the publications. These researchers had no desire to spend all of their time studying how to increase crop yield by two percent or how best to transport coffee beans to market. But this only makes the efforts that those at Amani applied towards molding the Institute into a center for the development of settler agriculture more pronounced.

A quiet change took place in the Institute over the years that the yearly reports cover. It increasingly became a site for the spread of knowledge within the colony and, seemingly, more aware of its role as such. In the 1910/1911 yearly report the inclusion of a new section "Correspondence of the Institute" signals this change. During that year Amani scientists sent over 300 letters to private individuals. In addition, 402 supply packages were sent to 43 agencies and 359 private addresses amounting to 1927 seed samples, 1002 plant cuttings, and 7000 plant bulbs.[137] The many detailed pages on Amani experiments with different varieties of plants could provide a direct benefit for the settlers in the colony, something Amani wanted to demonstrate as it sought to play a more active role in the colony.

Playing this role demonstrated two things, that the Institute provided a measurable benefit for the colony and that, as a public player, it deserved

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[137] *1910/1911 Amani Yearly Report*, pg. 5.

financing to continue to diffuse its research for the benefit of all. One of the main beneficiaries was of course the settler population. Whether this relationship began haphazardly through a few initial contacts or as part of a more concerted plan on the part of Amani's directors, by the 1910/1911 report, it is abundantly clear that the Institute now owned its public role to the fullest extent.

The 1910 yearly report similarly sees the introduction of a section on lectures and exhibitions that the Institute staged both in the colony and back in Germany. These lists are littered with mentions of the many *Nutzpflanzen* (including both cotton and sisal). Topics ranged from general discussions of soil conditions in the colony to overviews of plant and animal diseases, and, most interestingly, they also staged demonstrations of the techniques that they suggested for planters in their publications. The trends hidden by the lists of publications again become clear in the list of public appearances. Regardless of the variety of research carried out at the institute, Amani clearly began to flourish in the economic role that its founders had intended for it at its inception.

## The Dominance of Capitalist Logic

The works of individual scholars reveal a contemporaneous awareness of the vibrant, embedded nature of scientific work and drive home the extent to which 'mutual intellgibility' transcended background. The writings of three Amani scientists and two government officials reveal telling similarities. First, scientist Walter Busse's travel report demonstrates the wedding of an academic

and an economic eye as it discusses the transformative effect different plants could have on the landscapes encountered. This vision for both science and economics continues in the next four works considered here, which are elucidative for the contrasting professions of the writers working on similar topics. Richard Hindorf and Otto Warburg served as perennial scientists in the colony—the former the 'father of sisal' there and prior DOAG scientist, the latter a frequent contributor on cotton and a founding member of the KWK. Each of their works couple interestingly with a similar work written by a government official. Agricultural advisor to German East Africa Frederick Warner Brook composed a work on sisal, while the economic advisor Dernburg wrote a treatise on cotton. As in the abovementioned work of Busse, the wedding of scientific and economic considerations in these works forms the thread that brings them all together. A shared language formed a common core by which German actors interpreted their colonial surroundings.

Busse reported on his trip through the southern half of the colony on behalf of the German government in 1902. In the first pages, there is a glimmer of the esoteric. He visits many islands off the coast, places out of the way that otherwise receive little mention. Busse discusses vanilla and a variety of other plants that do not stand out in the other publications considered above. While these islands certainly weren't without productive potential they seem like a sideshow to his real travels. This becomes clear as he moves along in his report. The plants Busse encounters do not go without some attention, but another focus reveals itself. In one area, he comments on the suitability of local conditions for

manioc cultivation.[138] In another he argues that rubber trees will not grow in most of the south because it is missing steppe land. This demonstrates that he not only had expectations for what he would find, but also what that space could become.[139] Busse finds some varieties of sanseviera, which like sisal is noteworthy for its fiber production.[140] Further, he recommends that an area in Ungoni could grow coffee and recommends that a rail line be built from there to the ocean in order to facilitate the development of European plantations.[141] Cotton receives some sporadic mentions, but is surprisingly absent.

Outside of his more pointed observations, the amount of plain description indicates the motivation behind his report. The colonial government seems almost to have asked him, "What is there?" Busse discusses the plants he is coming across, the landscape, and to an extent also some about the livelihood and politics of the people he encounters (he seems generally informed on the colony). The whole narrative comes off as being for the purpose of collecting findings in regards to the potential economic productivity of the area, a task Busse seems equipped to carry out with his keen eye for both plants and business. His trip was a part of transforming the area into a more productive space: "Ungoni is on a good path to becoming the breadbasket of the South."[142] His engagement in the business side of botany reveals itself again in a publication two years later, "Uber

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[138] Walter Busse, *Berich ueber eine im Auftrage des Kaiserlichen Gouvernements von Deutsch-Ostafrika ausgefuehrte Forschungsreise durch den suedlichen Teil dieser Kolonie* (Berlin: Koenigliche Hofbuchdruckerei, 1902), 25.
[139] Ibid., 6.
[140] Ibid., 6.
[141] Ibid., 12.
[142] Ibid., 11.

heil- und nutzpflanzen Deutschostafrika" (1904); he composed this publication on behalf of the *Berichten der Deutschen Pharmaceutischen Gesellschaft*.

Two works on sisal, by Hindorf and Brook, both concern themselves with imparting to the reader the centrality of sisal's role in the economic life of the colony. Credited with first bringing sisal to the colony in 1893, Hindorf spent much of his time during World War I composing a treatise on the plant's cultivation. Due to Germany's defeat and the British takeover of the colony, he was forced to finish his work back in Germany. The preface captures his position, as he claims one of the main purposes of the book is to help Germany "rebuild our beloved East Africa and develop it to be ever greater."[143] While he mourns the loss of the colony and stresses his desire to have it returned, he underlines the fact that he intends his book for the practice of cultivating sisal.[144] Framing his discussions on soil, planting, and harvesting, he refers to sisal as the "wheat of German East Africa, which effected the entire economic development of the colony like no other plant."[145] Then, he tries to silence critics by arguing that the fears of overproduction and market saturation should not be a concern to planters in the area because of the quality of the plant produced in the region.[146] It is striking how he foregrounds his work with an economic justification.

Brook also composed an extensive tract on the present condition of sisal in 1913, as well as the ways in which sisal could improve as a cash crop in the global

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[143] Richard Hindorf, *Der Sisalbau in Deutsch-Ostafrika*, (Berlin: D. Reimer, 1925): iii.
[144] Ibid., iv.
[145] Ibid., 1.
[146] Ibid., 8-9.

market. The emphasis from Brook rests more on the business side than Hindorf. He goes into detail about the quality of fibers, the length of different fibers, and the way in which these qualities make them more suitable for different uses. Concomitant with this discussion, he brings in his correspondence with a number of companies and the logic behind their use of different fibers, while pointing to different markets that German East African sisal could penetrate.[147] He still covers many of the same concerns as Hindorf. The anxiety surrounding overproduction enters into his writing, but he argues that a new machine by Krupp will help by reducing the price, increasing the quality, and overcoming the problem presented by the sisal boom.[148] Like Hindorf, he effuses about sisal's bright future as a colonial commodity.[149]

Even, and perhaps especially, when cotton stubbornly remains the focus, the economic question pierces the discussion on every level. Two writings provide an interesting point of comparison: one comes from the colonial economic adviser Dernburg and the other from frequent Amani contributor Warburg. Warburg's work strikes a similar economic tone as the above works despite his scientific background. He edited and contributed to the collected volume *Cultivated Plants of the World Economy* in 1908. The work covers those crops that he saw as central to the developed world. Rather than being engrossed

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[147] Frederick Warner Brook, *Die Sisalkultur in Deutsch-Ostafrika eine einfuehrung fuer den waehrend der 26. Wanderausstellung der Deutschen landwirtschafts-gesellschaft veranstalteten sisalpreiswettbewerb, im auftrage des vortstandes der Deutschen landwirtschafts-gesellschaft* (Berlin: Deutsche Landwirtschafts-Gesellschaft, 1913), 10-14.
[148] Ibid., 61.
[149] Ibid., 19.

in esoteric research, he demonstrates a keen eye for the economic side of his work. The only section he wrote in the volume was on cotton: "Amongst all of the crops important to the global economy, cotton plays the primary role."[150] He lauds Togo for its key part in advancing cotton's cause for Germany, as well as the KWK for pushing the crop so strongly in the colonies.[151] While he points to cotton's high requirement for cow manure and the need to extend railways in German East Africa, he expresses confidence that, with focus, Germany will play an important role in this central crop for the world economy.

For his part, Dernburg wrote a pamphlet entitled "Baumwollfragen" for *German Business Day*. In it, he argues that Germany needs to break the monopoly of other nations and produce using its own raw materials.[152] He proposes that aggressive actions be taken in order to overcome challenges posed by British and American dominance in the world market.[153] After a discussion of U.S. and British cotton production, he lays out French attempts (and failures) before inserting Germany's efforts in Togo, a clever writing tactic to instill pride in his German audience.[154] After laying out Togo's success, producing roughly twice as much cotton as German East Africa, he asserts that, through the work of the KWK and the government, Africans are now producing a large quantity of cotton.

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[150] Otto Warburg, *Kulturpflanzen der Weltwirtschaft* (Leipzig: R. Voigtlander, 1908), 331.
[151] Ibid., 343-345.
[152] Richard Dernburg, *Baumwollfragen* (Berlin: Koeniglichen Hofbuchdruckerei, 1910), 1.
[153] Ibid., 2.
[154] Ibid., 8.

As mentioned above, the KWK sought to expand cotton production throughout the colonial empire. Even in 1910 at the time of Dernburg's writing, they continued on their post-Maji Maji path of advocating individual cultivation. Cotton plantations still certainly existed, particularly sprouting up along the central railway as it extended further inland, but they did not dominate.[155] While he expresses some skepticism at the primitive methods and political structures of the Africans, he also sets out a plan to create education stations to supply and teach the local population about cotton cultivation. In an ending flourish, Dernburg proclaims, "The goal has been achieved and Germany is back at the pinnacle of cultivating nations due to the hand-in-hand initiative of government and private concerns and the collaboration of science and praxis."[156] While he recognizes that Germany must overcome many obstacles to increase cotton production to a competitive level, he recognizes the cooperation amongst business, science, and government that is at the heart of the capitalism paradigm.

[155] Ibid., 9.
[156] Ibid., 10.

# Conclusion

In the words of economic historian William Sewell, inquiring into the capitalist paradigm's role in history "implies seeking out the historical crystallization of new socio-economic logics that contributed to capitalism's distinctive dynamics."[157] In German East Africa, this crystallization reveals itself through the undeniable magnetism of what Lonsdale and Berman called the "myth of the indispensability of the large farm sector to the colony's exports." The strength of this belief persisted through both revolt and bad harvests. Given the difficulties faced by development schemes in German East Africa, Rechenberg and Dernburg's desire to reform the colonial economy in favor of individual production seemed imminently logical in that it promised a solution for both problems. In making their plans, they did not, however, foresee the rise of sisal.

Maji Maji made any additional expansion of the plantation economy seem

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[157] William Sewell, "The Empire of Fashion and the Rise of Capitalism in Eighteenth-Century France," *Past and Present* 206 (Feb. 2010), 84.

unwise, as it would require the dislodging of an ever-increasing number of Africans. Sisal's growth contradicted reform efforts and made conflict between government officials and large business concerns seem likely, if not inevitable. While we have seen that tension existed between these two groups and that much has been made of this tension in the historiography, given the circumstances in which sisal flourished, the extent to which the two groups compromised is all the more striking. Both sides rallied together to create a supportive framework for the development of their newfound cash crop and for recruiting the labor force that would undergird it.

Rechenberg understood that the redemption of a colony that had largely disappointed early projections lay in the balance and that the primary factor in this redemption was an economic one. Rechenberg and Dernburg, while not completely abandoning their above-mentioned ideals, proved unable to ignore the importance of the rise of sisal because their very reasons for supporting indigenous agriculture rested on a capitalist foundation in the first place. That is, their humanitarian rhetoric occupied a secondary position to their economic ideals. As Warburg wrote in his introduction to *Cultivated Plants of the World Economy*, "people of the twentieth century [see] riddles in the place of where their father only saw trusted things."[158] The distance between production and consumption that characterizes capitalist systems of production underscores the ability of Dernburg and Rechenberg to temper their previously-stated ideals in favor of the growth of large business. The situation was not essentially different

[158] Warburg, *Kulturpflanzen der Weltwirtschaft*, ix.

for the scientists of the Amani Institute, who were able to cooperate with government and business alike in the pursuit of knowledge that would help transform both the German East African economy and the human-shaped landscapes on which it depended.

*Appendix One*


Map of German East Africa – The region in discussion stretched from the northern eastern border, down past Pangani and towards Mount Kilimanjaro. http://www.deutsche-schutzgebiete.de/webpages/Deutsch-Ostafrika_Karte_1912.jpg (accessed 4/17/16).

# *Appendix Two*

Table of Abbreviations

**DOAG** – German East African Company (*Deutsch-Ostafrikanische Gesellschaft*)

**DPG** – German Plantation Company (*Deutsch-Ostafrikanische Plantagen-Gesellschaft*)

**DAG** – German Agave Company (*Deutsche Agaven-Gesellschaft*)

**VDOP** – Association of German East African Plantations (*Verein Deutsch-Ostafrikanische Plantagen*)

**DKGFG** - German Colonial Tanning and Dye Society (*Deutsch-Koloniale Gerb- und Farbstoff-Gesellschaft*)

**RWG** - Rufiji Economic Society (*Wirtschaftlichen Verbandes Rufiji*)

# *Appendix Three*

## Sisal Projections

| Plantation Name | Hectares of Sisal | Hectares being harvested (~1250kg per hectare) | | | | Required Number of Workers | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1907 | 1908 | 1909 | 1910 | 1907 | 1908 | 1909 | 1910 |
| Bezirk Tanga: | | | | | | | | | |
| DOAG, Kange | 300 | | | 150 | 300 | 60 | 200 | 300 | 300 |
| DOAG, Moa | 2100 | 500 | 600 | 1000 | 1000 | 1000 | 1200 | 1500 | 1500 |
| Hofft & Stauffer, Ping. | 360 | 200 | 250 | 360 | | 600 | 600 | 600 | 600 |
| Müller, Nguvumali | 210 | 50 | 100 | 150 | 150 | 200 | 250 | 300 | 300 |
| PAP, Kihuhui | 350 | 150 | 300 | 350 | 350 | 250 | 350 | 350 | 350 |
| SAG, Kigombe | 400 | 100 | 150 | 300 | 500 | 600 | 600 | 800 | 800 |
| SAG, Pongwe | 461 | 130 | 250 | 325 | 450 | 380 | 500 | 500 | 500 |
| VIPG, Heidehus | 50 | | | 25 | 50 | 70 | 50 | 60 | 70 |
| GmbH, Ngomeni | 500 | | 150 | 400 | 500 | 350 | 500 | 500 | 650 |
| Weber, Ruvu | 75 | | | | 75 | 70 | 100 | 100 | 100 |
| WHPG, Kiomoni | 1084 | 250 | 500 | 1000 | 1200 | 1300 | 1300 | 1500 | 1600 |
| Zweilich, Mruwazi | 20 | | | 15 | 25 | 30 | 30 | 40 | 50 |
| | 5910 | 1380 | 2300 | 4075 | 4600 | 4910 | 5680 | 6550 | 6820 |
| Bezirk Wilhelmstal: | | | | | | | | | |
| Blaschke, Ngombezi | 104 | | | | 130 | 100 | 110 | 110 | 110 |
| NPGmbH, Ngombezi | 100 | | | | 125 | 30 | 100 | 100 | 100 |
| Wilkins & Wiese, Krgw. | 295 | | 35 | 150 | 370 | 250 | 345 | 350 | 350 |
| Wackwitz & Bolle, Mkb. | 40 | | | 10 | 150 | 40 | 50 | 60 | 80 |
| OAPS, Makuyuni | 240 | | 120 | 300 | 300 | 250 | 300 | 300 | 300 |
| Jäckel, Masinde | 50 | | | | 60 | | 50 | 50 | 70 |
| | 829 | | 155 | 460 | 1035 | 670 | 955 | 970 | 1010 |
| Bezirk Pangani: | | | | | | | | | |
| DAG, Buschirihof | 675 | 300 | 300 | 300 | 600 | 700 | 700 | 700 | 1400 |
| DOAG, Kikogwe | 1600 | 1000 | 800 | 800 | 1000 | 1750 | 1750 | 1750 | 1750 |
| VIPG, Kilimanguidu | 120 | | | | 120 | 30 | 100 | 120 | 150 |
| Eismann, Hale | 100 | | | | 125 | 80 | 100 | 100 | 125 |
| | 2495 | 1300 | 1100 | 1100 | 1845 | | | | |

Dernburg, "Bericht über die Verhandlung der Deputation des Wirtschaflichen Verbandes der Nordberzirke mit Sr. Excellenz dem Herrn Staatsekretär Dernburg," *Sondernbeilage der Usambara-Post* 20 (October 1907).

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