

# Introduction

## *Expertise, Development, and the State at the Climax of Empire*

One thing is certain: world population is increasing today at a rate which threatens the future of mankind. Food production is limping behind the expansion of population . . . What is needed is a spectacular increase in food production on a scale that exceeds the increase of populations and thus makes possible a higher standard of living . . . The facts of world poverty and the danger of growing crisis by starvation should be sufficient to convince even the most selfish and insular of the need for an all-out crusade for world development. The dangers to world peace are equally obvious. The dragons' teeth of poverty and hunger inevitably produce violence, for hungry men are dangerous men.

—Harold Wilson, 1953

IT HAS BEEN MORE THAN fifty years since Harold Wilson made his memorable appeal to the conscience of mankind for a war on world poverty.<sup>1</sup> Viewed through the “Cold War lens,” Wilson’s crusade can be seen as part of a new postcolonial strategy that gained international currency among Western policymakers in the 1950s and 1960s as they grappled with the pressing problem of transforming the newly emergent nations of the third world into productive, modern economies.<sup>2</sup> Today, the passing of the Cold War and the resurgence of neoliberal economics have exposed the apparently flawed and defunct principles of the development era and ushered in, in its place, a new age of globalization. A barrage of critical reassessments of contemporary development theory and policy has appeared in recent years, attesting to the sense of moral and intellectual impasse.<sup>3</sup> At the same time, historians and other social scientists have shown growing interest in unearthing the broader historical, political, and institutional context in which this pervasive set of ideas and practices was first set in motion. For many, that context began at the end of the Second World

War with the emergence of the United States as the dominant world power and the rise of anticolonial nationalist movements, which hastened the end of European rule in Africa, Asia, and elsewhere.<sup>4</sup>

For poststructuralist analysts in particular, the discourse of development is presented as the outcome of a specific historical conjuncture, formally inaugurated by President Harry Truman's Point Four Program in 1949, when the "discovery" of mass poverty in the third world came to occupy a prominent place in the minds of U.S. and other Western power elites.<sup>5</sup> The offer of technical and financial assistance as part of a new deal for the former colonies is invariably tied to the U.S.-led campaign to counteract communist influence in the newly emerging nations. "Development," as Arturo Escobar relates, "became the grand strategy for advancing [East-West] rivalry and, at the same time, the designs of industrial civilization. The confrontation between the United States and the Soviet Union thus lent legitimacy to the enterprise of modernization and development; to extend the sphere of political and cultural influence became an end in itself."<sup>6</sup> Despite its countless failures and the many twists and reincarnations of recent years, postdevelopment scholars argue that the dominance of Western knowledge and power have enabled the central tenets of this discourse to persist, seemingly impervious to criticism and incapable of meaningful reform. We are left with a paradigm that is totalizing and undifferentiated in scope, an all-encompassing knowledge-power regime seeking to impose an unwanted modernity on the rest of the world. Development as theory and practice, from this standpoint, began sometime in the decade following the Second World War, and from its inception it has always been and remains in essence a project synonymous with the globalizing of Western capitalism and the modernizing of non-Western cultures.

This book offers a different narrative, shifting our gaze to connections and debates that not too long ago were regarded in the literature on development as largely irrelevant. Building on several important studies, it examines the way development as a framework of ideas and practices emerged out of efforts to manage the social, economic, and ecological crises of the late colonial world.<sup>7</sup> The severe economic depression of the early 1930s and the rising social unrest in the form of strikes, riots, and disturbances that followed in its wake marked a critical turning point in the colonial encounter, setting off a far-reaching process of official rethinking and reform designed to forestall popular discontent and give a new lease on life and legitimacy to the imperial project. The concept of

development, as Frederick Cooper and Randall Packard suggest, “became a framing device bringing together a range of interventionist policies and metropolitan finance with the explicit goal of raising colonial standards of living.”<sup>8</sup> From this perspective, the postwar crusade to end world poverty represented not so much a novel proposal marking the dawn of a new age, as the zenith of decades, indeed centuries, of debate over the control and use of the natural and human resources of colonized regions.

More recent research on development has sought to extend the analysis further, arguing not only that many of the key themes and central concerns of the postwar development era have their roots in earlier colonial efforts but also that Western development models and ideologies should not be taken as self-evident, self-generated, hegemonic discourses imposed without check from above. Again, as Cooper and Packard remind us, “The appropriations, deflections, and challenges emerging within the overall construct of development—and the limits to them—deserve careful attention.”<sup>9</sup> Some of the most innovative research of recent years has been by Africanists and other colonial historians, who stress that wider imperial ideologies and agendas were inevitably intertwined with, and often challenged, modified, and even molded by, the actual practice and locality of development.<sup>10</sup> Helen Tilley’s work on the African Research Survey, for example, has shown how in the interwar period new ideas about development were emerging that paid careful attention to local conditions, needs, environments, and even local knowledge.<sup>11</sup> Such efforts drew heavily on the new sciences of ecology, nutrition, and social anthropology, as well as on decades of local experience that brought into question earlier assumptions regarding the economic potential of tropical Africa. In a similar vein, Suzanne Moon’s study of scientific authority and development in the Netherlands East Indies has also shown how detailed, empirical knowledge and awareness of the variability of local conditions and indigenous agricultural practices became the basis of the Dutch approach to agricultural improvement and extension. This greater understanding and knowledge of place, she argues, guarded against indiscriminate colonial economic and environmental transformations.<sup>12</sup> Perhaps the most penetrating analysis so far is Monica van Beusekom’s case study of the French Soudan’s Office du Niger.<sup>13</sup> Colonial planners at the office, van Beusekom contends, were unable to effect the wholesale transformation of agriculture and rural society as they had initially intended when the project began in the 1920s, in large part because African settlers on the scheme failed to embrace their rationalist vision of intensive plow agriculture and

crop rotations on irrigated plots. Instead, a complex process of interaction and negotiation between African farmers and project officials and experts gave rise to development practices that were often pragmatic and makeshift in nature and that diverged on a number of crucial issues from the social evolutionist model that underpinned the scheme's original plans. What is more, the failure of these earlier efforts led to a significant disjuncture in approach at the project level. After the Second World War, as she details, project managers began integrating local agricultural practices, such as abandoning crop rotations in favor of fallow periods and allowing nomadic pastoralists to graze their cattle on office lands during the dry season as a way of maintaining soil fertility. And although they still believed in the superiority of European science, they began to draw heavily on indigenous knowledge such as local soil classification systems to determine which crops and varieties were best suited to which soils.

The present study, as will become clear, owes a great deal to the insights of recent scholarship on the politics and role of local practices in shaping and altering the wider discourse of development, but it approaches the subject from a somewhat different angle. Rather than focusing on any specific development experience or particular colonial locality or region, it examines the emergence of and continuities and ruptures in colonial development doctrine through the lens of a distinct group of actors operating *within* the late imperial state—the network of specialist advisers, scientific researchers, and technical experts involved in colonial policy debates and project planning during the period from 1895 to 1960. I argue that the reevaluation of British imperial goals which began in the wake of the Depression stemmed in large measure from the increasing sensitivity and awareness of the complexities of local conditions articulated by technical officers and researchers working on the ground as part of the colonial professional departments. Their reassessment of local conditions and earlier colonial development models contributed to fundamental shifts, not only in practices at the project level but also in the broader theoretical assumptions and policy paradigms operating at the Colonial Office (CO) as well. Indeed, one of the main goals of the present study is to deepen our understanding of how colonial knowledge was produced and institutionalized, by examining the process through which the concerns and visions of practitioners operating on the peripheries of empire were filtered back up to and had an influence on policy debates in London.

It is, however, no less important to understand how the perspectives of metropolitan officials and experts, imbued with a particular reading

of history and agendas emanating from wider imperial and international research currents, were in turn circulated outward. For it is equally clear that the shift in colonial development debates and agendas that began in the 1930s bore the stamp of preoccupations and practices radiating from the center, as well as the fault lines of world economic and political events such as the Depression and the Second World War. A kind of neo-Malthusian crisis narrative began to creep into official discourse as experts warned of land shortages, famine, desertification, and widespread social unrest.<sup>14</sup> The template and symbolism of earlier European and imperial historical experiences were overlaid upon a mounting political and social instability, as officials in London struggled to understand and assert control over the turmoil erupting in the colonies. I make the case that one of the key sets of actors facilitating this movement and exchange of ideas—elevating the concerns of local officers onto the imperial stage while at the same time filtering them through the metropolitan lens—were the specialist advisers and experts enlisted by the CO. These advisers helped promote colonial scientific cooperation and the greater exchange and synthesizing of colonial knowledge through collaboration with imperial research institutes and clearinghouses in Britain; through periodic visits and regional tours to different colonial territories as well as countries outside the empire; through encouraging collaboration among scientific practitioners in different colonies and regions working on related problems, and the coordination of local efforts through the setting up of regional research institutions; and through the organization of regional and pan-colonial conferences and attendance at various imperial and international scientific fora. In a very real sense, these experts played a critical role in the growing institutionalization and globalization of colonial scientific knowledge and authority in the 1930s, 1940s, and 1950s.

Although there already exists an extensive literature on the history of late British imperial policy, most of this scholarship concentrates on the role of prominent political leaders and senior administrative officials or on the political, administrative, and ideological background behind “high” metropolitan decision making at the climax of empire.<sup>15</sup> Without the inclusion of specialist advisers and experts and the role they played in the imperial project, our understanding of late-colonial environmental and development debates and their legacy remains incomplete. Imperial discourse and power were never static or hegemonic. Nor can we speak of a unifying and all-embracing colonial mission, as the work of an earlier

generation of historians who saw imperial policy as the product of the “official mind” would suggest.<sup>16</sup> Scholars in postcolonial studies have led the way with their critique of “official” history and their repositioning of the cultural impact of colonialism to the forefront of recent scholarship.<sup>17</sup> The postcolonial perspective has drawn attention to the fact that language, tropes, metaphors, and the emergence of new forms of knowledge and representation were just as important for the preservation of imperial power as outright political or economic force, and that imperial expansion and power was as important in shaping culture and identity in the West as it was in the colonies themselves. But postcolonial theorists have often failed to see the enigmatic and fractured nature of Western imperialism. Much postcolonial scholarship, as critics point out, depicts colonial discourse and power as monolithic and hegemonic in scope, and reinforces, by inversion, the very “us-them” dichotomies and cultural representations on which imperial power and structures of knowledge rested. The stress on the power of the West, as Dane Kennedy reminds us, “countenances the neglect of the power as it was actually exercised in the empire, ignoring its plural and particularized expressions.”<sup>18</sup>

Indeed, partly in response to the poststructuralist literary invasion, there has been a greater appreciation in recent research by historians of colonialism of the tensions and constraints that afflicted imperial efforts to impose its will on other peoples, and of the conflicting and uncertain nature of both metropolitan policy and colonial administration as a result of these tensions.<sup>19</sup> Debates about the contribution of science and expertise to colonial development, for example, were shaped by competing agendas of power and by the tensions and conflicts within colonial policy and the colonial state. The colonial state, as documented in Richard Grove’s pioneering work on the origins and early history of global environmental discourse, was prepared to heed the warnings of the scientific lobby and place controls on the operations of private capital when its long-term security interests appeared threatened by political and social instability and ecological crisis.<sup>20</sup> And in contrast to much recent research which emphasizes the role of colonial scientists in the creation of a dominating and often misguided knowledge about the African landscape, Tilley argues that scientific practitioners working in the colonial territories between the wars were often instrumental in constructing a dynamic and locally sensitive framework for development, one which laid the basis for many of the socioecological critiques of the postwar era.<sup>21</sup>

The present study builds on the new colonial historiography by exploring the debates, divisions, and fundamental doubts that shaped—and ultimately hamstrung—the late-colonial development initiative. In the process, it presents an alternative political and intellectual history of the origins and course of British colonial development doctrine and its contribution to the emergence of rural development and environmental policies and programs in the late colonial and early postcolonial era. As will become clear in the chapters that follow, colonial development ideology was not simply, or even primarily, about “modernizing” colonial lands and subjects. Rather, as Michael Cowen and Robert W. Shenton propose, the purpose of development doctrine since its inception in the nineteenth century has been to provide the means for state policy “to assert the value of community in the face of the destruction wrought by an immanent process of development . . . to construct the positive alternative to the disorder and underdevelopment of capitalism.”<sup>22</sup>

Ideas about the “improvement” of colonial lands and peoples, as we shall see, can be traced back to the very beginnings of European overseas expansion. Proponents of imperialism commonly viewed the diffusion of European knowledge, commodities, capital, and, where suitable, settlement, as the most natural and efficient way to develop the material forces of what they considered to be unused or underutilized areas of the world. But the story told here really begins in the late nineteenth and early twentieth centuries, when a new phase of imperial expansion led governments in Britain as well as Belgium, France, Germany, and the Netherlands to devise new colonial policies with similar intentions.<sup>23</sup> Many of the assumptions behind the new programs were drawn from earlier ideologies of improvement and reform that had been employed and debated for centuries, both within Europe and throughout the overseas empires. What made the “new” imperialism different was its more self-conscious emphasis on the systematic development of the colonies, and the importance it attached to science and technology in opening up the tropics not only for the benefit of European trade and industry but also for the moral and material advancement of colonial peoples. By the later part of the nineteenth century, science and technology had come to be seen as indispensable “tools of empire,” tipping the scales in favor of European conquest and penetration of unprecedented expanses of the globe.<sup>24</sup> A more explicit connection between science and the state was also made, as governments both in Europe and in the overseas empires turned increasingly to

scientific expertise to deal with the problems of capitalist production, resource management, and social order.<sup>25</sup>

In Britain, the new forward-looking doctrines became synonymous with Joseph Chamberlain's campaign to supplant the laissez-faire philosophy of nineteenth-century liberals with a more "constructive" and interventionist ideology of colonial development. As secretary of state for the colonies from 1895 to 1903, Chamberlain pressed for state-directed development and imperial assistance so that "those estates which belong to the British Crown may be developed for the benefit of their population and for the benefit of the greater population which is outside."<sup>26</sup> Under Chamberlain, the CO in London began to promote tropical medical and agricultural research and training through the appointment of medical and botanical advisers, the founding of the Liverpool and London Schools of Tropical Medicine, and support for the Royal Botanic Gardens at Kew.<sup>27</sup> Subsequent parliamentary ministers and imperial enthusiasts from across the political spectrum would invoke the "great estates" analogy, and over the next half-century the imperatives of colonial science and development would be firmly entrenched within the government's agenda.

Indeed, I make the case that the most striking feature of British colonialism in the twentieth century is the growing confidence it placed in the use of science and expertise, joined with the new bureaucratic capacities of the state, to develop the natural and human resources of the empire and manage the perceived problems and disorder generated by colonial rule. The possibilities of planned, rational state intervention, guided by the advice and impartiality of expert opinion, helped to reinvigorate and morally rearm the imperial mission in the late colonial epoch.<sup>28</sup> Fallout from the Great Depression cast doubt on that mission as escalating unrest and rioting exposed the deplorable working and living conditions that existed in many colonial territories, while the collapse of world commodity prices shattered confidence in free trade and export-oriented development strategies. The CO initiated a far-reaching process of policy reform, which led by the end of the decade to the passing of the Colonial Development and Welfare Act of 1940. The Second World War acted as a further catalyst for the revolution of metropolitan thought, creating new pressures for state planning and social engineering both on the metropolitan home front and in the colonies, which heightened the sense of urgency and demand for action.<sup>29</sup>

For the colonial empire, the new initiative created an immense need for new kinds of knowledge and scientific organization. A great pooling

of British scientific and academic expertise, assembled by the CO, was matched by an equally dramatic expansion of the colonial technical departments in the field. Even before 1940, the CO had sought to widen the range and sources of technical knowledge and expertise available to the secretary of state and the area departments by gradually building up a network of permanent professional advisers and standing committees. The beginnings of the CO's advisory network stretch back to before the First World War, with Chamberlain, but it was in the interwar period that the expansion and consolidation of technical expertise began in earnest as new areas of advice were added in education, agriculture, animal health, fisheries, nutrition, and labor. In structure and composition, these advisers and committees acted as important models for the final and most substantial phase of growth, which began in the 1940s in preparation for the postwar development and welfare offensive. By the late 1940s, the CO had been reinforced by the inclusion of nearly two dozen principal advisers and consultants and an equal number of specialized advisory councils and committees, each with the authority to plan new initiatives and to co-opt the services of the country's leading experts in their respective fields (see tables 0.1 and 0.2).<sup>30</sup>

Table 0.1. Principal Colonial Office advisers and consultants

<i>Advisers and Consultants</i>	<i>Years Appointed</i>
Chief Medical Adviser (later Chief Medical Officer)	1897–1912, 1926–61
Agricultural Adviser	1929–61
Adviser on Animal Health	1931–32, 1940–61
Fisheries Adviser	1931–37, 1948–61
Labor Adviser	1938–61
Educational Adviser	1940–61
Forestry Adviser	1941–61
Secretary for Colonial Agricultural Research	1945–61
Director of Colonial Medical Research	1945–61
Adviser of Social Welfare	1947–61
Adviser on Co-operation	1947–61
Surveys Adviser and Director of Colonial Geodetic and Topographic Surveys	1948–61
Geological Adviser and Director of Colonial Geological Surveys	1948–61
Head of African Studies Branch	1949–61
Adviser on Drainage and Irrigation	1953–54, 1957–61
Colonial Building Research Liaison Officer and Housing Adviser	1953–54, 1957–61
Engineer-in-Chief, Crown Agents (Engineering Adviser)	1953–61

Source: Charles Jeffries, *The Colonial Office* (London: Allen and Unwin, 1956); Anne Thurston, *Records of the Colonial Office, Dominions Office, Commonwealth Relations Office and Commonwealth Office* (London: HMSO, 1995), chap. 8.

<i>Advisory Committees and Councils</i>	<i>Years Appointed</i>
Colonial Survey (later Survey and Geophysical) Committee / Advisory Committee on Colonial Geology and Mineral Resources	1905–57
Colonial Veterinary Committee	1907–19
Advisory Medical and Sanitary Committee for Tropical Africa	1909–22
Colonial Research Committee (later Council)	1919–32, 1942–59
Colonial Advisory Medical and Sanitary Committee / Colonial Advisory Medical Committee	1922–61
Advisory Committee on Native Education in Tropical Africa	1923–28
Colonial Medical Research Committee	1927–30, 1945–60
Advisory Committee on Education in the Colonies	1929–61
Colonial Development Advisory Committee	1929–40
Colonial Advisory Council on Agriculture and Animal Health (and, later, Forestry)	1929–61
Central Welfare Coordinating Committee/Colonial Social Welfare Advisory Committee / Advisory Committee on Social Development in the Colonies	1941–61
Colonial Labor Advisory Committee	1942–61
Colonial Economic Advisory Committee / Colonial Economic and Development Council	1943–51
Colonial Fisheries Advisory Committee	1943–61
Colonial Social Science Research Council	1944–61
Colonial Agriculture, Animal Health and Forestry Research Committee	1945–61
Advisory Committee on Co-operation in the Colonies	1947–61
Colonial Economic Research Committee	1947–62

Source: Charles Jeffries, *The Colonial Office* (London: Allen and Unwin, 1956); Anne Thurston, *Records of the Colonial Office, Dominions Office, Commonwealth Relations Office and Commonwealth Office* (London: HMSO, 1995), chap. 9.

Paralleling these moves at the center was a related enlargement and coordination of the colonial technical and research services. Prior to the First World War, organization of the technical services was sporadic and carried out on a departmental and territorial basis, but during the inter-war period technical recruits rose dramatically, accounting for more than 40 percent of overall appointments to the colonial service. A colonial research infrastructure began to take shape with the creation of the first in a planned network of central research stations that were to be linked to colonial resource departments as well as scientific bodies and research institutes in Britain. Organizational efforts were temporarily set back by the declines in recruitment, retrenchment of staff, and disruptions in applied research that followed on the heels of the Great Depression and the disruption of the Second World War, but as the war drew to a close, earlier

models and recommendations were revived and reformulated into ten-year development plans, and there was a great surge in training of new technical candidates (see table 0.3). At the same time, research work intensified and concentrated in new or extended regional organizations and institutes. In many ways, then, late British colonial imperialism *was* an imperialism of science and knowledge, under which academic and scientific experts rose to positions of unparalleled triumph and authority.

This book follows the origins, course, and legacies of the strategic engagement between scientific and technical expertise, development, and the state at the climax of the British colonial empire. It focuses on the views of the CO's specialist advisers and councils, as well as those of scientific practitioners and researchers employed in the colonial technical services. While British colonial administrative structures made use of specialists trained in an extensive range of scientific and technical fields, this account is necessarily selective, concentrating primarily on agriculture—the most important colonial science in regard to environment and development—and to a lesser extent on tropical medicine and education, which, as we will see, came to be seen as the fields of imperial knowledge most closely and significantly connected with the new policies concerning colonial development and welfare. Further, the study focuses primarily on sub-Saharan Africa, although other regions, including South and South-east Asia and the Caribbean, are taken into account as well. This concentration reflects not only the importance of tropical Africa to British

Table 0.3. Colonial Service recruitment, 1913–52

	1913–19	1920–29	1930–39	1940–44	1945–52
Administrative	190 (35%)	983 (25%)	610 (27%)	166 (22%)	1,934 (19%)
Scientific Expertise <sup>a</sup>	167 (31%)	1,720 (44%)	928 (42%)	311 (40%)	3,724 (37%)
Nonscientific Expertise <sup>b</sup>	32 (6%)	514 (13%)	161 (7%)	141 (18%)	2,689 (26%)
Other Appointments <sup>c</sup>	154 (28%)	725 (18%)	548 (24%)	154 (20%)	1,801 (18%)
<b>Total</b>	<b>543</b>	<b>3,942</b>	<b>2,247</b>	<b>772</b>	<b>10,148</b>

a. Includes appointments in Agriculture, Chemistry, Engineering, Fisheries, Forestry, Geology, Marine, Medicine, Meteorology, Surveying, Veterinary, and other/miscellaneous scientific posts.

b. Includes appointments predominantly in Education but also Architecture and Town Planning, Civil Aviation, Commerce and Industry, Cooperation, Dentistry, Development Officers, Economics, Labor, Mining, and Social Welfare.

c. Includes Auditing, Broadcasting, Finance and Customs, Legal, Personnel, Police, Prisons, Public Relations, Statistics, and other/miscellaneous posts.

Source: Anthony Kirk-Greene, *On Crown Service: A History of HM Colonial and Overseas Civil Services 1837–1997* (London: I. B. Tauris, 1999), 22, 24, 26, 37, 52–53.

imperial ambitions in the twentieth century but also the fact that many of the colonial technical services and advisory bodies established in this period were initially working on this region and only later extended to include the entire colonial empire.

As scholars of colonial history have begun to recognize, these metropolitan specialists and their technical counterparts in the field played decisive roles in the final decades of imperial rule, formulating policies and plans at Whitehall and setting the agenda within professional departments overseas. Academic and scientific advisers and technical officers became the principal conduit through which new ideas and influence flowed, as authority in these years moved away from the fabled district administrator who “knew his natives” to the specialist who “knew his science.”<sup>31</sup> Crucial to the present study is the way in which they imagined and framed the problems gripping the colonies in the late 1930s, 1940s, and early 1950s, and how the analyses they produced often provided the rationale for administrative solutions that promoted external intervention and control over local resources and practices. But while the sway of scientific opinion in the 1940s and 1950s was unprecedented and extensive, it was not absolute. The rise and “triumph” of the experts was a great deal more ambiguous and fragmented than the sheer increase in their numbers would lead us to believe. By the early 1940s, the new battalion of experts and advisory bodies seemed poised to rule, busily pumping out memoranda and reports that would provide the blueprints for postwar reconstruction and reform. Their victory was short-lived, however, and to a large extent illusory. Indeed, one of the main questions arising out of the study of colonial expertise is why the vast increase in specialist personnel, imperial financing, and bureaucratic services that took place in the late 1940s and early 1950s failed to achieve the intended goals of the new development policies. For despite the increasingly ambitious tone of metropolitan planning initiatives, many of the resulting programs and schemes proved unsuccessful and at times even disastrous.

This disjuncture between metropolitan discourse and colonial practice has its roots in the structural constraints and material contradictions punctuating the colonial project. As studies of the political economy of the colonial state have shown, the inadequacies of colonial power in Africa and elsewhere forced regimes early on to retreat from their initially ambitious plans for the introduction of private property and wage-based labor relations.<sup>32</sup> Difficulties in securing an adequate supply of labor, in particular, proved insurmountable, sparking confrontations and clashes

with preexisting indigenous societies and heated public debate back in Europe. By the First World War, colonial states had come to rely instead on alliances with “traditional” elites and local chiefs in order to maintain political order, collect taxes, and guarantee the preconditions for capitalist development. Africans were “containerized” into tribes and subjected to the power of the Native Authority or hierarchy of chiefs, while the colonial state for its part undertook to steer, and at times even block, the economic forces it had helped to set in motion in the first place.<sup>33</sup> This makeshift settlement began to unravel under the weight of the Great Depression, which had a profound effect throughout much of Africa, the West Indies, and elsewhere, as export prices for primary commodities collapsed. The collapse of exports triggered a sharp fall in overall wage employment and wage rates, which remained low even after world prices began to rebound. Real incomes and living standards for colonial wage earners plummeted even as the cost of food, imported goods, and urban rents rose sharply. In response, social unrest and strikes erupted throughout the colonial empire in the late 1930s. The Second World War exacerbated the crisis, generating new pressures for the mobilization of colonial resources for metropolitan needs, while at the same time requiring colonial governments to drastically reduce consumption by raising taxes and cutting imports.<sup>34</sup> Social unrest accelerated under the severities of wartime as a further wave of strikes and protests spread across the vital ports and communication centers of empire.

Britain’s postwar economic troubles accentuated the tensions even further. Once again, governors in the tropical colonies were instructed to maximize production of food and raw materials to meet British as well as colonial needs. The urgency and scope of state intervention in colonial production and marketing has led historians to describe this moment as “the second colonial occupation.”<sup>35</sup> The postwar colonial state may have been revitalized by the influx of new specialist personnel and the new emphasis on integrative planning and coordination of government services, but the inherent weakness and incongruities of colonial power remained. After the war, colonial authorities increasingly resorted to heavy-handed state measures and compulsory legislation to solve rural problems, inadvertently deepening social discontent and anticolonial resistance in many African territories.<sup>36</sup> The high-water mark of intervention came with the Fabian-inspired development offensive of 1947, when the imperial government attempted to circumvent private capital by establishing large-scale, state-managed projects for agricultural production on estates, while

maintaining control over colonial commodity trade to, in effect, subsidize British consumers.<sup>37</sup> But in the absence of a functioning civil society to provide moral legitimacy, and with governing structures and habits that were deeply patriarchal, racist, and authoritarian in nature, the capacity of the colonial state to deliver a metropolitan-style development and welfare program was critically and fatally circumscribed.<sup>38</sup>

The structural inadequacies and limitations of colonial power in the face of mounting social, economic, and ecological crisis form the backdrop to the bureaucratic tensions and policy debates analyzed in this book. Contradictions in colonial development doctrine reflected the factionalized and contradictory nature of colonial power in general. The conflicting pressures of metropolitan needs, on the one hand, and mounting material crises and social resistance on the other, generated bureaucratic confusion and rivalry among many officials and experts. These fissures had an impact on ongoing policy debates at both the local and imperial levels, often leading to strong criticism against many proposed development schemes, or to the formulation of new approaches that promised to undo the “mistakes” of earlier efforts. The influence of long-standing CO traditions remained strong in the 1930s and 1940s, especially among the older generation of senior officials, who viewed the growth of the advisory committees and subject departments with alarm, as undermining the importance of local knowledge and experience and the intimacy of personal communication that had once existed between governors and their contacts in the geographical departments.<sup>39</sup> Nor was there always agreement between political heads, permanent staff, and advisers, or even among advisers themselves, over the right course of action to take. Imperial administrators and politicians at the time used science and development as evidence of the progressive and altruistic virtues of empire, while public scientists and academics used empire as a way to advance individual careers and secure state funding for research and institutional network-building. But beyond the mutually beneficial partnership and unbridled optimism of science and empire, important disagreements and tensions existed over the direction and purpose of research and policy.

Outside Whitehall, there were divisions and conflicts, not only between the CO and local administrations but also between technical and administrative departments within colonial governments and between research specialists and general administrative officers within technical departments. Indeed, it has been argued in recent research that the failure of the postwar colonial development project stems to a very large degree

from the internal conflicts surrounding scientific authority within the colonial state itself.<sup>40</sup> The transformative project envisioned by those in London required the specialist departments of the colonial state to take on a much more assertive and central position of authority than before, but this would have required a revolution in colonial government and the subordinating of district administration to the technical branches. Yet the political foundations of the colonial state were tied to the administrative service, with its close ties to local intermediaries, and could not be easily modified without raising serious political problems. In the end, the technical branches remained subservient to the administrative side.

This structural impasse was compounded by a divergence of views over the meaning of expertise itself. Although they shared many of the same assumptions and attitudes, generalist administrative officers tended to place greater value on local experience and the understanding of particular local knowledge, whereas technical officers considered the subordination of this knowledge to the principles of a universal science as necessary for the success of the new development initiatives. In many ways, the universalizing discourse of mathematical calculation and efficiency that characterized imperial science was at odds with the outlook of colonial administrators, whose own sense of expertise was premised on years of experience and knowledge of local conditions and cultures, as well as with the whole structure of local power, privilege, and customary rights upon which the legitimacy of imperial administration perched.<sup>41</sup> While the present account certainly lends support to such a distinction, it also suggests that matters were by no means so clear-cut. Many technical staff, it is true, were committed to introducing revolutionary changes and transformative technologies; others in the field urged a slower and more cautious approach, and were outspoken in their criticism of the ill-planned and hasty directives coming from political and metropolitan authorities. The evidence suggests that the gap between the rhetoric of science as an important tool of empire and the reality of science as practiced was often very wide indeed.

The overall picture that emerges is one of a colonial development discourse being formed through a complex interaction between various levels of colonial administration, each with its own perceptions of the nature of the problems which confronted it, as well as by the influences of broader international and imperial scientific networks and trends. As David Anderson perceptively observes, "It cannot simply be argued that events in the colonies forced a shift in policies, or that awakening of concern for

[colonial] development in London prompted a new set of policies ‘from above.’ Both explanations are unsophisticated, and ignore the movement of ideas that went from colony to London and back again, that were modified by experience both within and outside the Empire, and that often resulted in reforms that went far beyond what was initially intended.”<sup>42</sup> Out of the complex and dialectical intersection of ideas, expertise, and bureaucratic power emerged a collective imperial agenda torn by inconsistency, indecisiveness, and objectives pulling in divergent and often conflicting directions. The friction and paralysis of late colonialism, I argue, was to a very great extent the product, not only of structural limitations and administrative wrangling but of the contradictory and ambivalent aims of the colonial mission itself: a mission shaped as much by concerns about the relative decline of Britain and the apparent failure of progress in the colonies as it was by high-modernist belief in the inevitable march of human and material advancement. By the early 1940s, the old Chamberlainite doctrine, which had linked colonial development abroad to social reform at home in an effort to solve the problems of industrial decline and surplus population in Britain, had been substantially redefined by a new liberal, paternalist agenda, which looked to state intervention to deal with the problems of growing rural-urban migration, unemployment, and loss of productive resources—*not in Britain*, but in the colonies themselves. In the place of expansionary schemes to pry open the colonies for British investment, settlers, and access to commodities, with science directing the exploitation of colonial nature, metropolitan experts became increasingly preoccupied with the conservation of the empire’s resources and the self-sufficiency and welfare of its rural communities. Like the earlier social-imperialist doctrines, imperial science was still about developing the empire, but it increasingly became “a voice of reason and restraint” and one of sustainable management for the long term.<sup>43</sup>

This period is significant, then, not only for the degree to which the imperial government was prepared to utilize the services of scientific experts but also for the changing rationale that lay behind its greater accommodation. Earlier colonial development debates had revolved around the central problem of population scarcity amid an apparent bounty of untapped wealth. This discourse of emptiness and underpopulation in many ways spoke to the fundamental problem faced by almost every regime in the early decades of colonial rule: that of exerting effective control over local labor. Indeed, in the 1920s, the shortage and inefficiency of manpower due to debilitating diseases and unsanitary conditions was consid-

ered one of the greatest obstacles to the development of the tropics, and its resolution through increased medical and sanitary intervention was seen as perhaps the most evident display of the utility of science for empire. Such optimism was tempered, however, by indications of a crisis of biological reproduction among native populations of many colonial territories.<sup>44</sup> In the late 1920s and early 1930s, concerns about depopulation and cultural “degeneration” were particularly strong in colonial medical and public health circles, whose members lobbied for the extension of mother and child welfare services in an effort to check high maternal and infant mortality rates. Alarm over high infant mortality rates also precipitated research on native health and diet, which concluded that malnutrition was a widespread and serious peril in many colonies and would require greater cooperation between agricultural, educational, and health services and experts to remedy. Nor were infant mortality and malnutrition the only social ills laid bare by colonial researchers between the wars. Initially, most colonial agricultural departments had concentrated on the introduction of new cash crops and the expansion of export agricultural production, but in the wake of the Depression these policies came under fire for encouraging “selfish individualism” and overtaxing the soil.<sup>45</sup> Such criticisms may well have been influenced by a series of droughts that occurred in the 1920s and 1930s over large areas of the United States, Australia, and sub-Saharan Africa. The dust storms and drought that swept across the Great Plains in the 1930s are well known, but similar droughts hit the center of the Australian continent and the savannah lands of sub-Saharan Africa as well, leading some observers to suggest that these areas, under the pressure of human settlement, were drying up and becoming uninhabitable.<sup>46</sup>

These problems and many others started to register more prominently in both local and imperial research currents and policy debates in the 1930s and 1940s, precipitating a widespread rethinking of native welfare and colonial land use, and, more broadly, of colonial development itself. Humanitarian lobbyists and social reformers argued that the “development of the people” should be the first priority of the imperial government, through the introduction of a more enlightened policy of colonial scientific trusteeship. “Native” education, broadly defined as the upbringing of the individual by the whole community, was the linchpin in this new concern for the human side of development. The new field of social anthropology was held up as a potential theoretical model for understanding and ameliorating the problem of “culture contact.” At the same

time, a new “systems approach” to ecological research was beginning to take shape through the influence of key imperial institutions such as Oxford University, which saw in ecology a potential administrative tool not only for the study of the environment but for the improved management of the empire’s human and material resources as well.<sup>47</sup>

At the center of much of this new research was the appearance—or, rather, the perception—of a budding population problem. In contrast to the concern about underpopulation and depopulation which had initially inspired demand for more information and investigation, by the late 1930s and 1940s officials and experts at the CO in London were increasingly troubled by what they saw as a pending crisis of *surplus* population and unemployment.<sup>48</sup> The recognition of a relative surplus population in the colonial empire had much to do with the changing nature of the labor question. The old problem of labor shortage was transformed by the Depression into a new crisis of labor surplus, in the form of growing unemployment and underemployment, low wages, and widespread urban and rural immiserization. Alarms were increasingly sounded over what officials termed “detrimentalization,” or, in other words, the breakdown of rural village communities and the unwanted drift of natives to towns and mining centers.

It is with this backdrop of growing deprivation and the threat of rural emigration in mind that we need to read the emerging consensus in favor of state-managed colonial development in the late 1930s, 1940s, and early 1950s. For many metropolitan officials and experts, the unfolding drama that began to grip the colonies had a familiar ring to it. The social problems arising from increasing urbanization and poverty in Britain and the specter of rural indebtedness and impoverishment in India cast particularly long shadows over imperial debate. As authorities began to contemplate and fear the possibility of an empire-wide environmental and population crisis that might lead to a breakdown in colonial order, they were motivated to envision increasingly bolder and more extensive schemes for state-directed intervention and social engineering. Many of the problems confronting colonial authorities were compared to metropolitan ills and judged to be amenable to metropolitan-type solutions. The state-centered approaches to welfare entitlements in vogue in Britain were considered by many reformers to be readily adapted to managing the social and ecological problems of the empire as well. But the fear of colonial disorder also produced indecisiveness and profound ambivalence over the aims of government policy. Officials and experts vacillated between

the need to reassert order and stability, on the one hand, and the imperative of increasing productivity and efficiency on the other. Some wanted to use the state as the prime agent for transforming and modernizing rural communities, while others hoped to employ its power to bolster and strengthen them. Even those wishing to preserve traditional society could see no way of introducing the “improvements” they felt were necessary without unleashing centrifugal forces of individualism and class division that threatened to break it apart. The tensions inherent in the late colonial mission were further exacerbated by the ill-conceived and urgent nature of the postwar Fabian colonial offensive, which ultimately led the demise of British colonial rule altogether.

Although the late colonial development initiative may have failed on its own terms, it was not without its lasting effects. The most direct outcome, as others have stressed, was the heavy bias in favor of state-centered ideologies and development structures that remained largely intact even after the transfer of formal colonial power. Hand in hand with this was the depoliticization of poverty and power achieved by recasting social and economic problems as technical ones that could be fixed by rational planning and expert knowledge.<sup>49</sup> But perhaps even more enduring were the ideas and ideological assumptions these experts left behind in the wake of the colonial failures of the early 1950s. Colonial advisers and experts laid down a framework of ideas that championed an agrarian doctrine and vision of development that would become deeply embedded in international policies and institutions in the decades following the end of colonial rule. The pioneering studies and texts they produced became key reference works for subsequent generations of scientists and academic advisers. Many of the philosophical assumptions and apocalyptic narratives that have become part of the conventional wisdom and lexicon of contemporary development and environment policies and practices have their roots in these earlier colonial debates and doctrines.<sup>50</sup> In addition, in a very direct way, the scientists and academics who served the CO played an active role in establishing the network of international aid organizations that sprang up after the Second World War. Some of the most prominent metropolitan advisers would later go on to help establish and direct such UN specialist agencies as the Food and Agriculture Organization (FAO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). When their careers in the colonial service were brought to an abrupt end in the 1960s, many of the colonial scientific practitioners and technical officers would go on to become consultants

working for the United Nations, the World Bank, the Commonwealth Development Corporation (CDC), the Overseas Development Administration (ODA), and other donor agencies.

Through this case study of colonial scientific and technical experts and the part they played in the development and environmental policy debates and agendas of the mid-twentieth century, this book seeks to understand the quandaries that led up to this important transformation in British imperial thought and practice, and to begin to piece together the intellectual and administrative legacies it left behind. While there is no denying the significance of Cold War geopolitics and American strategic interests in elevating the idea of development to the status of a hegemonic, global doctrine after 1945, it is important to realize the continuities that exist with these earlier doctrines and debates. In the context of findings that indicated a shift in demographic trends in favor of the poorer areas of the world, Western power elites and experts in the 1950s and 1960s were increasingly disturbed by the specter of colonial and third world poverty and population growth, which they imagined might lead to increasing conflict over global resources.<sup>51</sup> These regions were thought to be in the grips of a social revolution that had to be carefully guided and controlled through “positive” state intervention in order to forestall discontent. Viewed through the lens of imperial crisis, the impetus for the late colonial initiatives and the subsequent appeal for a war on global poverty reflected as much angst over an uncertain future as it did optimism regarding modernity as the destiny of humankind.