

Working Paper No. 49/99

**Nutrition and Economic Destitution in Northern Ghana,
1930-1957. A Historical Perspective on Nutritional
Economics**

Jerôme Destombes

INTRODUCTION

*Nutrition was not only the most important food problem of late colonial Africa but also a sensitive indicator of poverty. Its history in particular regions is one of the most urgent tasks awaiting students of Africa.*¹

This research takes Iliffe's suggestion seriously. For the student of Sub-Saharan Africa who has decided to explore a plausible route of causation between nutrition and poverty, the most urgent task is to disregard the initial discouragement triggered by the scarcity of references. The lack of relevant data is commonly pointed out and the contrast with the powerful insights made throughout the last decade by development economists is striking: poverty issues have been comprehensively investigated with behavioural models that strive to capture household strategies to cope with nutritional inadequacy and scarcity of resources.² Although these strategies potentially have immense effects on welfare, development and the effectiveness of public policies, there have been few attempts to examine nutrition in less-developed countries through an economic history lens.

A review of the literature on the case of the Gold Coast/Ghana from the 1930s to the 1960s shows neglect by historians of poverty in general and of the biological dimension to destitution in particular. A similar observation can be made with respect to Sub-Saharan Africa. Iliffe and Rijpma³ deal primarily with the continent as a whole; they lay emphasis on the implications for malnutrition and poverty of the transition from the precolonial to the colonial period. Nevertheless they do not investigate their interaction in a systematic way.

¹ J. Iliffe, *The African Poor: A History* (Cambridge, 1987), 161.

² M. Lipton and M. Ravallion, 'Poverty and Policy', in J. Behrman and T. N. Srinivasan (eds.), *Handbook of Development Economics*, vol. I (Amsterdam, 1995), 2551-2657. It is a comprehensive review of recent economic studies and an interesting summary of the economic debate surrounding the interplay between nutrition and poverty.

Reyna and Curtin⁴ offer local studies where nutrition is explored, but they do not use it as a lens to trace poverty.

Northern Ghana experiences ecological and economic marginality, especially in the current Upper-East Region, which has been plagued with looming desertification and a high incidence of destitution. This area has a history of chronic malnutrition and enduring poverty, even if it has not suffered massive famine mortality. Consequently, Northern Ghana provides an opportunity to carry out a regional study for which living memories and archives are rich due to the durable incidence of physical ill-being, partly nurtured by nutrition deficiencies. All the more since these prevailing poor health conditions have had significant socio-economic implications.

Anthropological studies have explored patterns of food consumption and production in Northern Ghana⁵ (termed the Northern Territories in the colonial period) with a dual focus on cultural behaviour and the emergence of social differentiation. However, they seem to be tempted by a sort of cultural relativism that leads them to define Africa's distinctiveness by the initial

³ S. Rijpma, 'Malnutrition in the History of Tropical Africa', *Africains Contemporains*, XLIII (1996) 2, 45-63.

⁴ S. P. Reyna, *Wars without End. The Political Economy of a Precolonial African State* (London, 1990). P. D. Curtin, 'Nutrition in African History', in R. I. Rotberg and T. K. Rabb (eds.), *Hunger and History. The Impact of Changing Food Production and Consumption Patterns on Society* (Cambridge, 1985), 173-184.

⁵ M. Fortes and S. L. Fortes, 'Food in the Domestic Economy of the Tallensi', *Africa*, IX (1936) 9, 237-276; J. Goody, 'Rice-Burning and the Green Revolution in Northern Ghana', *Journal of Development Studies*, 16 (1980) 2, 136-155; J. Goody, *Cooking, Cuisine and Class (A Study in Comparative Sociology)* (Cambridge, 1982), especially Chapter 3; R. B. Tripp, 'Farmers and Traders: Some Economic Determinants of Nutritional Status in Northern Ghana', *Journal of Tropical Pediatrics*, 27 (1981) 1, 15-22. These various studies are based on fieldwork in Northern Ghana and provide interesting anthropological insights. For an excellent summary of the evolution of nutritional anthropology, see T. K. Fitzgerald (ed.), *Nutrition and Anthropology in Action* (Amsterdam, 1977).

.⁷ In other words, the investigation of poverty and destitution in Africa is obscured by a veil of preconceptions about Africans and Sub-Saharan societies.

Regarding economics, the scarcity of data especially with respect to food consumption helps to explain why no study goes back beyond the 1950s.⁸ Social issues such as health and nutrition have not been comprehensively analysed until very recently, namely the 1980s with the World Bank's living standard household surveys. There is a further difficulty that pertains to nutritional economics in general: no agreement has emerged among economists and nutritionists about the concept of nutritional requirements, which is a critical matter for the historian who investigates economic destitution.⁹ As a consequence, the postulate of Dasgupta is worth considering:

⁶ Goody, *Cooking, Cuisine and Class*, emphasises the emergence of differentiated patterns of food consumption during the colonial period in Northern Ghana due to social stratification and intensive agriculture. Iliffe, *African Poor*, rejects this approach since it does not capture adequately the historicity and complexity of poverty experienced by local populations. According to him, poverty and destitution were present before colonisation and they saw their characteristics altered under the colonial rule. The present paper follows Iliffe's hypothesis.

⁷ Iliffe, *African Poor*, 55.

⁸ W. Birmingham, I. Neustadt, and E. N. Omaboe (eds.), *A Study of Contemporary Ghana (The Economy of Ghana)*, vol. I (London, 1966), especially Chapters 5 and 9; B. F. Johnston, *The Staple Food Economies of Western Tropical Africa* (Stanford, 1958). The former provides a detailed review of Ghanaian food production and consumption, and the latter makes various references to the case of Ghana in the context of nutrition.

⁹ A. K. Sen, *Poverty and Famines (An Essay on Entitlement and Deprivation)* (Oxford, 1982), especially Chapter 2; S. R. Osmani (ed.), *Nutrition and Poverty* (Oxford, 1992). The latter is useful because of its comprehensiveness; the former discusses the biological dimension of poverty in a challenging manner by adopting a relativist view based on the idea of human adjustment to scarcity.

*When we inquire into well-being and destitution, it is it seems to me illuminating to notice the commonality of the human experience: that for example we all have similar needs -for food and care and shelter, for friendship and love and a communal life, and for freedom to develop our talents and to pursue our ends. That this commonality will nevertheless lead to differences in cultural norms and social practices is not a paradox: it is to be expected. Differences in the social sphere are not merely an outcome of historical accidents: they arise also from ecological differences across communities.*¹⁰

Hence, a historical perspective on nutritional economics does not assume African distinctiveness with respect to nutrition deficiencies and economic destitution. On the contrary, it attempts to trace the response of ordinary Africans to common human sufferings such as absolute poverty and undernourishment. This view follows Iliffe's conviction: *'Africans have been and are the frontiersmen who have colonised an especially hostile region of the world on behalf of the entire human race. That has been their chief contribution to history. It is why they deserve admiration, support, and careful study'*.¹¹

In undertaking such a study in the case of Northern Ghana through the late colonial period, a very rich source of inspiration and information has been found in the historical literature dealing with health and disease.¹² The absence of accurate data on income and nutrition standards can be offset by health data: they capture also various degrees of economic destitution and poverty. The interpretation of these indirect sources on destitution has sometimes been difficult because of the *'insistent image of the African continent as a "refused*

¹⁰ P. Dasgupta, *An Inquiry into Well-Being and Destitution* (Oxford, 1993), 8.

¹¹ J. Iliffe, *Africans: The History of a Continent* (Cambridge, 1995), 1.

¹² G. W. Hartwig and K. D. Patterson (eds.), *Disease in African History (An Introductory Survey and Case Studies)* (Durham, N. C., 1978); K. D. Patterson, *Health in Colonial Ghana: Disease, Medicine, and Socio-Economic Change, 1900-1955* (Waltham, Mass., 1981). Insight provided by these secondary sources has been confirmed in the exploration of primary sources related to health and disease. Besides, another secondary source based on weight data has proved useful even if it is a late one given the period considered: J. M. Hunter, 'Seasonal Hunger in a Part of the West African Savanna: A Survey of Bodyweights in Nangodi, North-East Ghana', *Transactions (Institute of British Geographers)*, (1967) 41, 167-185.

place" (...): a hot piece of land on which pathetic beings live on roots, herbs,

.¹³ Even among medical officers who were more objective in their account of poverty because of their daily experience of destitution, the discourse on African poverty was not immune from such an 'insistent image'. It epitomized the normative discourse on poverty that prevailed up to the 1940s.¹⁴

Northern Ghana is characterised by a savanna environment whose main features are low and irregular rainfall, areas of both low and high population density, an agricultural dependence on cereal cultivation and finally seasonal hunger cycles.¹⁵ A pattern of acute infectious diseases¹⁶ and a relative underdevelopment compared to Southern Ghana¹⁷ are two supplementary characteristics that are worth examining in the light of the biological dimension to destitution. The strategy is to avoid either an almost exclusive attention to the social production of hunger, as exhibited by Watts (1983),¹⁸ or an equally

¹³ V. Y. Mudimbe, *The Idea of Africa* (London, 1994), 9.

¹⁴ Lipton and Ravallion, 'Poverty and Policy', 2554-2572. These authors contrast the normative/moral approach to poverty prevalent before 1945 to the positive analysis that emerged after the Second World War.

¹⁵ E. A. Boateng, *A Geography of Ghana* (Cambridge, 1959); K. B. Dickson, *A Historical Geography of Ghana* (Cambridge, 1969); Hunter, 'Seasonal Hunger'.

¹⁶ K. D. Patterson, 'River Blindness in Northern Ghana, 1900-50', in Hartwig and Patterson (eds.), *Disease in African History*, 88-117. This vivid study is a good example of Northern Ghana's epidemic pattern.

¹⁷ N. K. Plange, 'Underdevelopment in Northern Ghana: Natural Causes or Colonial Capitalism?', *Review of African Political Economy*, (1979) 15&16, 4-14; A. Shepperd, 'Agrarian Change in Northern Ghana: Public Investment, Capitalist Farming', in Heyer, P. Roberts and G. Williams (eds.), *Rural Development in Tropical Africa* (London, 1981), 168-192; J. Songsore, *Structural Crisis, Dependent Capitalist Development and Regional Inequality in Ghana*, ISS Occasional Papers, No. 71 (The Hague, 1979); I. Sutton, 'Colonial Agricultural Policy: The Non-Development of the Northern Territories of the Gold Coast', *The International Journal of African Historical Studies*, 22 (1989) 4, 637-669. These authors give a flavour of the debate about the relative underdevelopment of Northern Ghana.

¹⁸ M. Watts, *Silent Violence: Food, Famine and Peasantry in Northern Nigeria* (Berkeley, 1983).

selective focus on ecological factors undermining health status such as described by Mortimore (1989).¹⁹

The choice of the period 1930-1957 is justified by two reasons. Nutrition as a science emerged only in the 1930s and primary sources document substantially this new policy concern of the colonial administration. The late colonial period was marked by the Great Depression, the Second World War and the approach to independence in 1957, each of which appear to have exerted noticeable influence on the interplay between nutritional status and economic destitution in Northern Ghana. Thus, changes and continuity in patterns of poverty may convey a surprising historical significance.

The paper is organised in four chapters and an appendix:

I - Tracing 'Hidden Violence': Methodological and Conceptual Framework;

II - Poverty in the Gold Coast Northern Savanna: The Biological Roots of Economic Destitution;

III - Poverty and Socio-Economic Destitution among Northern Migrants: Nutritional Status, Working Capacity and Survival;

IV - Nutrition and the Blindness of Public Policies: 'Cook Better' versus 'Earn

I - TRACING 'HIDDEN VIOLENCE': METHODOLOGICAL AND CONCEPTUAL FRAMEWORK

This chapter discusses the opportunities for, and limitations of, an economic history perspective on nutritional economics in the case of northern Ghana, 1930-1957. The relative scarcity of historical secondary sources has been a driving force behind the quest for primary sources. Therefore, they will be

¹⁹ M. Mortimore, *Adapting to Drought (Farmers, Famines and Desertification in West*

described in this chapter before beginning the historical analysis. Finally, the results of a comparative reading of Dasgupta and Iliffe²⁰ are presented.

The expression 'Hidden Violence' deserves an explanation that provides an interesting preliminary. It is an explicit reference to Watts's work on poverty in Northern Nigeria, the major existing study for colonial West Africa,²¹ and it is worth quoting him:

*Between 1900 and 1980, there has been an extraordinary sequence of famines in Nigeria -and of course over much of Africa- in which those who produced were also those who starved. Furthermore, this suffering is almost unassessable, especially in the colonial period when famine relief proved frequently ineffective for the task at hand, or was neglected altogether. A good deal of peasant hardship went unnoticed and unrecorded (...) There is, then, a structural relationship between famine and the political economy of colonialism that legitimately warrants the use of the term "violence". This structural causality and the absences and neglect that mark the history of famine in northern Nigeria, in spite of the cognitive significance of food crises among Hausa farmers themselves, is the "silent violence" to which the title of this book refers.*²²

Regarding the Gold Coast/Ghana, the characterization of nutrition deficiencies as 'Hidden Violence' is justified by the following reasons. Undernourishment and malnutrition were widespread and fierce in the northern savanna throughout the late colonial period. The magnitude of nutritional impairment in the northern population is difficult to estimate, but unlike in Nigeria these deficiencies were recorded as early as in the early 1920s.²³ Because of this

Africa (Cambridge, 1989).

²⁰ Iliffe, *African Poor*. P. Dasgupta, *The Economics of Destitution*, STICERD Development Economics Research Programme, Discussion Paper No. 43 (London, 1993); *Nutritional Status, the Capacity for Work, and Poverty Traps*, STICERD Development Economics Research Programme, Discussion Paper No. 69 (London, 1995); *Inquiry into Well-Being*.

²¹ Watts, *Silent Violence*.

²² *Ibid.* xxiv-xxv.

²³ A. W. Cardinall, *The Natives of the Northern Territories of the Gold Coast (Their Customs, Religion and Folklore)*, Chapter VIII (The Daily Round) (London, 1921).

official awareness about chronic nutritional deficiencies in the Northern Territories of the Gold Coast, the failure of the British colonial administration to take adequate corrective public actions can be described as 'violence'. The blindness of public policies that will be documented in Chapter IV led to the absence of effective initiatives to deal with biological roots of destitution. Furthermore, the row surrounding the nutrition report made by Dr. F. M. Purcell in the early 1940s was epitomized by leaks made to the local press²⁴ and, above all, the refusal of the Gold Coast Government to publish it.²⁵ As a medical officer, Dr. F. M. Purcell had a thorough expertise on nutrition, since he had published a book on dietary issues in the forest of the Gold Coast.²⁶ This information is new knowledge following my investigations in primary sources. Thus, an official veil of silence aimed at hiding the incidence of nutrition deficiencies in the Northern Territories. The 'Hidden Violence' generated by these deficiencies chiefly afflicted the ordinary people who focus the attention of Iliffe.²⁷ Northern people who cultivated food crops were also those who starved, even if their southward supply of food cannot be necessarily blamed for this misfortune.²⁸

The daily significance of this misfortune for northern people, in contrast to the lack of attention from policy-makers, was shown by the languages spoken in

This author documents the presence in local vocabulary of the term 'goitre that is a nutrition deficiency, and the prevalence of semi-starvation from July to November.

²⁴ *The West African Review*, 17, 222 (June, 1946), 'Nutrition in West Africa (A Challenge and an Answer)', by the Medical Correspondent (D. F. M.), 618-619.

²⁵ Public Record Office, CO 859 (1939-1946), Social Service Original Correspondence. A series of documents (e.g. No. 68/1, 1941-43) and a personal inquiry with the support of PRO officer Dr. M. Banton (Colonial Office and Africa expert) suggest that the draft submitted by Dr. F. M. Purcell was censored by the Gold Coast colonial administration.

²⁶ F. M. Purcell, *Diet and Ill-Health in the Forest Country of the Gold Coast* (London, 1939).

²⁷ Iliffe, *African Poor*, 1; *Africans*, 4.

²⁸ H. P. White, 'Internal Exchange of Staple Foods in the Gold Coast', *Economic Geography*, 32 (1956) 2, 115-125. This author provides a revisionist view on food supply by the Northern Territories since the 1940s based on a rich set of data.

the region. Hausa and Twi²⁹ dictionaries of the period display a rich vocabulary regarding poverty. Iliffe³⁰ emphasises the usefulness for historians of examining local languages even briefly when he analyses the Islamic perception of poverty in savanna societies. One must bear in mind that languages can be misleading since they carry a perception biased by social prejudices rather than an objective description of reality. Nevertheless, they give evidence of the sensitivity of local people towards food related sufferings. Even if Twi was the mother-tongue of the Akan, whose homelands were in the south, and therefore closely reflected their social values, its role as *lingua franca* and as the language of a dominant group led some northerners to use it through their regular exchange with southerners. Moreover, the diversity of northern dialects make difficult it a focus on a single language in this region. According to Christaller (1933),³¹ the Twi term *okom* was used equally to designate hunger, scarcity and starvation. The resulting state of physical want was captured by the term *ofon* describing emaciation and atrophy. A poor man was designated as *ohiani*, a term used also for destitute; it was used also to denote an unassuming person. In the same vein, the two following proverbs were emblematic of the ambiguous proximity between terms describing physical want and those suggesting social destitution. The first one said: *Ohia, wodi no fie, na wonni no gua so* (i.e. when you are a poor man, you remain at home and do not mix in public affairs); the second one was shorter: *Ohiani nni yonko* (i.e. the poor man has no friend).³² Hausa speakers made a similar analogy between physical want and social marginality. The term *talauci* designated poverty, also a person without any official position and anyone suffering from the lack of commodities although they were in abundant

²⁹ Cardinall, *The Natives of the Northern Territories*, ix-x and 131-158 (for a useful vocabulary).

³⁰ Iliffe, *African Poor*, 41-42.

³¹ Rev. J. G. Christaller, *Dictionary of the Asante and Fante Language (Called Tshi (Twi))*, 2nd ed. (Basel, 1933).

³² R. S. Rattray, *Ashanti Proverbs (The Primitive Ethics of a Savage People)* (Oxford, 1916), Proverbs No. 615 and No. 637 respectively.

supply.³³ Furthermore, various terms captured different degrees in food scarcity and subsequent deprivation. For instance, *talauci* was supplemented by *tsiya* and *mayata* that denoted destitution and physical hardship respectively. Food consumption was used to contrast the standards of living enjoyed by 'rich' and 'poor' and Iliffe quotes an Hausa living at the end of nineteenth century, Imam Imoru, to document this attitude: '*The common people, talakawa, make their soup [i.e. relish] without meat, and the destitute, matsiyata, are forced to make it without salt*'.³⁴ The physical process of emaciation was described by a term, *ramau*, that also indicated a loss of prosperity. Besides, three words made a distinction between famine (*yunva*), a shortage of food (*kunci*) and a temporary scarcity of corn (*askare*).³⁵

These observations convey three significant ideas regarding the quest for sources and their interpretation. People living in the Northern Territories experienced physical want as documented by their main languages: thus, the relative scarcity of written sources on poverty does not mean that destitution was an ancillary phenomenon. A similar judgement can be expressed with reference to data related to the nature and incidence of nutrition deficiencies (see Chapter IV): their growing availability from the 1930s onwards raises an issue of interpretation. The question is the extent to which they capture an increasing impact of nutritional diseases or a mere improvement in statistical coverage due to an enhanced awareness of nutrition among medical officers. The second idea is the absence of a homogeneous pattern of poverty. As it is suggested by the Hausa vocabulary, various degrees of physical want and subsequent destitution were observable. This diversity gives credence to Iliffe's proposition that Africa's poverty must be investigated by opposing poverty to sufficiency rather than poverty to wealth.³⁶ This assumption fits well

³³ G. P. Bargery, *A Hausa-English Dictionary and English-Hausa Vocabulary* (Oxford, 1934).

³⁴ Iliffe, *African Poor*, 42.

³⁵ Bargery, *A Hausa-English Dictionary and English-Hausa Vocabulary*..

³⁶ Iliffe, *African Poor*, 3-4.

to an investigation of the biological dimension to destitution. It allows us to capture different types of nutrition deficiencies ranging from absolute undernourishment to a mere lack of certain nutrients. The relevance of this sufficiency criterion will be tested by investigating the contribution made by these deficiencies to different forms of economic destitution. The third and final idea is the ambiguous nature of poverty itself. In other words, it is clear that a pure economic approach is misleading since the poor were not simply perceived as destitute in material terms. Their capacity to be self-sufficient embedded in the adequateness of their food consumption was as important as their position within social networks. It was a crucial matter with respect to poverty among northern migrant labourers.

In the light of this preliminary, my search for sources on the nature and incidence of such a 'Hidden Violence' has given the following results. There is a continuity in the silence surrounding the poor before the colonial period and the slow improvement in the written records that was observable from the 1930s onwards. Iliffe³⁷ emphasises that African oral traditions do not describe the daily life of marginal groups but rather that of the powerful. Besides, according to Iliffe, the absence of official institutions in pre-colonial Africa and the relatively narrow coverage of secular poor relief introduced under the colonial rule explain the scarcity of reliable records.³⁸ The focus on the poor rather than on poverty is deliberate: it is a methodological requirement since behind the aggregate picture documented by serial data (e.g. medical statistics) or general classification (e.g. migrant labourers) lies a variety of individual experiences of destitution.

Sources used in the present paper are now described. The widest range of sources available in the U.K. has been investigated, from individual manuscripts (i.e. colonial officers' private papers stored at Rhodes House) to

³⁷ Iliffe, *African Poor*, 48.

³⁸ *Ibid.* 193-201.

official serials such as the Medical Department Annual Reports (1929-1955). Among these sources, qualitative information have proved helpful in compensating for the lack of quantitative data. Clearly, the discovery of only a few estimates of nutrition intakes and scanty ration scales has been disappointing. For instance, the Nutrition Survey undertaken by Dr. F. M. Purcell in the early 1940s following the 1936 despatch from the Secretary of State for the Colonies on nutrition policy³⁹ provides scarce accurate data. On the qualitative side, some vivid and detailed descriptions provided by personal narratives have given more interesting evidence to fuel the discussion. Finally, the balance between primary and secondary sources is difficult to maintain over the period under scrutiny (1930-1957). Although the period 1930-45 was rich in archival and published primary sources, the 1945-57 post-war period saw little improvement in official records of poverty while secondary sources that began to be published in the late 1950s gave some insights in the late colonial period. Nevertheless, apart from the Medical Department Annual Reports, no other regular and reliable account of nutrition deficiencies has been found. The attempt to trace nutritional status and economic destitution in the Gold Coast/Ghana has been shaped by these limitations regarding sources. Nevertheless, it has finally proved promising because of the original material collected and the results gained by the examination of written sources.

In undertaking a historical study that borrows some key hypotheses from nutritional economics, the historian faces two difficulties. The first is the selection of economic concepts and empirical studies that may be helpful in his inquiry. The second is the substantial gap between the subtleties of nutritional economics and the flawed historical records on which he relies. Furthermore, the very nature of the history of human nutrition and food calls for

³⁹ Colonial Office Reports, *Nutrition, Policy in the Colonial Empire*, Despatch from the Secretary of State for the Colonies (18th April 1936), No. 121.

a 'holistic approach'⁴⁰ that embraces various dimensions of human activity. It is a tribute to the quest for a comprehensive history (*histoire totale*) advocated by the *Annales*.⁴¹ The consequence of this orientation is that the economic sphere, namely economic exchange but also economic behaviour in general, must be investigated with a broad documentation. For instance, in order to capture factors leading an individual or a community to suffer from poor nutrition, data on incidence of diseases and food prices have to be supplemented by data on consumption habits. The determination of these habits related to food cannot be explained without investigating distributive factors that allocate income and foodstuffs across stratified groups, anthropological factors that influence food consumption through cultural considerations, and ecological factors that relate to the environment shaping the agricultural pattern of food crops. Iliffe⁴² gives a flavour of the complex significance of changes in nutrition by a focus on colonial land alienation and labour migration in Sub-Saharan Africa: their impact in terms of economic destitution is difficult to assess because of an ambiguous sense of causation.

These important considerations point to the need for substantiating the dialogue between history and economics that will shape the historical narrative. The dialogue is based on a comparative reading of Iliffe⁴³ and Dasgupta.⁴⁴ Their respective analyses display a similar and central proposition: the importance of biological factors and physical want in

⁴⁰ Rotberg and Rabb (eds.), *Hunger and History*, 305-308.

⁴¹ R. Forster and O. Ranum (eds.), *Biology of Man in History (Selection from the Annales Économies, Sociétés, Civilisations)* (Baltimore, 1975); R. Forster and O. Ranum (eds.), *Food and Drink in History (Selection from the Annales Économies, Sociétés, Civilisations)* (Baltimore, 1979). These two volumes provide a fascinating and rich selection of articles written by historians influenced by and contributing to the *Annales* School. Although none of these articles investigates the case of Sub-Saharan Africa, they show the historical complexity of nutrition and food issues that demands an approach going well beyond the mere economic sphere.

⁴² Iliffe, *Africans*, 138, 238-240.

⁴³ Iliffe, *African Poor*.

Rotberg and Rab (eds.), *Hunger and History*, 332-335.

⁴⁶ Iliffe, *African Poor*, 4-6.

⁴⁷ *Ibid.* 6.

⁴⁸ *Ibid.* 7.

to avoid physical want.⁴⁹ Second, the cumulative nature of structural poverty explains the attention to be paid to biological factors: if the destitute in pre-colonial Africa were those whose labour power was impaired (e.g. the incapacitated), the colonial period saw '(...) *numerous able-bodied men lacking land, work, or wages sufficient to maintain physical efficiency*'.⁵⁰ Either as a cause or as a consequence of economic destitution, the incapacity to secure sufficient food and adequate nutrition intakes was a sensitive symptom of poverty. The question is whether it is possible to trace a distinction between 'structural' and 'conjunctural' nutrition deficiencies. Besides, the extent to which malnutrition may have contributed to the convergence of the two types of poverty must be addressed. For instance, a regular phenomenon like seasonal hunger⁵¹ (the correlation between the loss of weight and the dry season) may have combined with new forms of nutritional impairment and economic hardship.

Nutritional economics as developed by Dasgupta sheds an interesting light on these questions:

*What an assetless person owns is potential labour power, nothing more. Conversion of potential into actual labour power can be realized if the person finds the means of making the conversion, not otherwise. Nutrition and health care are a necessary means to this. The economics of destitution inquires into the circumstances in which the conversion is realizable, and when it isn't.*⁵²

In other words, the critical factor is the capability of a person to convert potential into actual labour power and nutrition -as a basic physiological requirement - is a vital contribution to this achievement. The economic history

⁴⁹ *Ibid.* 1. It is worth stressing that Iliffe found the key of this distinction in studies of eighteenth-century France where the *pauvre* was clearly distinguished from the *indigent* according to a criterion of food self-sufficiency.

⁵⁰ *Ibid.* 6.

⁵¹ Hunter, 'Seasonal Hunger'.

⁵² Dasgupta, *Economics of Destitution*, 4.

perspective focuses on the evolution of this capability over time. Besides, Dasgupta⁵³ attempts to explore extreme poverty by focusing on poverty traps afflicting the poorest and by stressing that destitution is not a transient phenomenon. In this context, nutritional economics is primarily interested in biological factors that undermine the working capacity and sometimes generate dynastic poverty: *'once a household falls into a poverty trap, it can prove especially hard for descendants to emerge out of it (...)'*.⁵⁴ Hence, while Iliffe's distinction between permanent and temporary poverty is required if the convergence hypothesis is to be documented, Dasgupta's concern with the destitute leads nutritional economics to examine structural poverty only. His concern with the poorest, similar to Iliffe's focus on the very poor, is shared by Lipton⁵⁵ who distinguishes poor and ultra-poor according to a criterion of severity of nutrition risk: while the poor face nutritional inadequacy due to constrained choices in fulfilling food requirements, the ultra-poor are more sensitive to severe hunger and seasonal vagaries. More broadly, Dasgupta attempts to discover *'what class of people in market economies are particularly vulnerable to acute nutritional (and more generally commodity) deprivation, and then we will ask what this implies by way of the role the State ought to adopt'*.⁵⁶

This line of research sounds challenging in studying the Northern Territories which, as early as the 1930s, were integrated in 'national' market activities through the supply of labour and food. While Governor Guggisberg had in 1919 characterised the Northern Territories as the 'Cinderella' of the Gold

⁵³ Dasgupta, *Nutritional Status, the Capacity for Work, and Poverty Traps*, 4, 6-9, 15, 29-31.

⁵⁴ *Ibid.* 4.

⁵⁵ M. Lipton, 'Seasonality and Ultrapoverty', *IDS Bulletin*, 17 (1986) 3, 4-8. R. Chambers, R. Longhurst and A. Pacey (eds.), *Seasonal Dimension to Rural Poverty* (London, 1981). The latter provides a comprehensive review of the impact of seasonality on nutrition (especially Chapter 2).

⁵⁶ Dasgupta, *Inquiry into Well-Being*, 14.

Coast because of their supply of labour, meat and soldiers,⁵⁷ Cardinall offered a more problematic view:

The grasslands of the north at present are but a market-garden for the south, and a source from which labour pours steadily to the forest zone, just as our towns in England draw their regular recruits from the villages of the country. But their future is assured. Ground-nuts, shea-nuts, cotton, kapok, oils and fats, grains and fibres will add immensely to our future trade. (...) But food in the north is not always plentiful, and grim famine often stalks near by -another problem for us to solve one day.⁵⁸

Investigating the interplay between nutritional status and economic destitution may help understand the contradiction of a 'market garden' plagued by chronic inadequate food and nutrition standards.

II - POVERTY IN THE GOLD COAST NORTHERN SAVANNA: THE BIOLOGICAL ROOTS OF ECONOMIC DESTITUTION

This chapter examines the nature and incidence of nutrition deficiencies experienced in the savanna. An attempt is made to document 'conjunctural' and 'structural' poverty: the relevance of this distinction and of the convergence hypothesis supported by Iliffe are explored. Therefore we will study chronic undernourishment and starvation, persistent and transitory destitution. The differences between these various forms of physical impairment and subsequent poverty are sometimes difficult to establish since they are often cumulative. Although he focuses on chronic destitution, Dasgupta⁵⁹ stresses the close links between chronic undernourishment, and ultimately, transitory and terminal destitution such as famine. My inquiry documents two important

⁵⁷ Colonial Report, *Gold Coast, Northern Territories* (1919), 5.

⁵⁸ A. W. Cardinall, *In Ashanti and Beyond* (London, 1927), 277-278, 279.

⁵⁹ Dasgupta, *Inquiry into Well-Being*, 14.

results: nutritional impairments made a significant contribution to destitution in an environment marked by severe ecological and health constraints; chronic undernourishment and seasonal hunger shaped the daily life of northern peoples with a striking persistence from 1930 to 1957, especially in certain rural areas. This duration might give historical flesh to Dasgupta's analysis of poverty traps and dynastic destitution.⁶⁰

Various considerations on the geography and ecology of Northern Ghana are worth describing because of their influence on the biological roots of destitution. They pertain to agriculture, population and health. Morgan and Pugh⁶¹ describe how nutrition interplays with these important issues: '*a minor but significant factor in Government agricultural policies has been the problem of West African diets*'.⁶² Three nutritional problems arise from their analysis: '*diets were not only deficient in certain elements, but were low in quantity, that is in calorific value, and, in many areas, were particularly low at the seasons of heaviest work*'.⁶³ The nutritional content of diets, the absolute scarcity of some key elements such as protein, and seasonal variations in food intakes were the main food-related deficiencies. For instance, the difficulty of combining agricultural requirements in terms of crop yield and nutritional needs in terms of calorific yield was epitomized in the debate surrounding the alternative cultivation of root crops versus cereals.

Again consideration of crops as foodstuffs, that is consideration of taste, diet, nutrient and calorific values, is also important. Thus whilst yams, cassava and plantains each give approximately 10 times the yield per acre of bulrush millet, guinea corn or upland rice, the calorific yield per acre is only 2.5 to 4 times. In other words root crops or plantain yields need to be at least 2.5 times as great as those of cereals per acre for the same level of food production. Despite a lower over-all weight of production, bulrush millet and guinea corn combined

⁶⁰ Dasgupta, *Nutritional Status, the Capacity for Work, and Poverty Traps*, 4.

⁶¹ W. B. Morgan and J. C. Pugh, *West Africa* (London, 1969), Chapter 10.

⁶² *Ibid.* 516.

⁶³ *Ibid.* 517.

*yield in total in West Africa only slightly less food on a calorific basis than yams and cassava combined. Moreover, the high productivity of roots is offset as competitive advantage by the longer growth period and by the general need for longer fallows.*⁶⁴

The northern crop pattern in 1939 was a vivid example of the progression experienced by root crops: traditional cereals cultivated such as millets, guinea corn and maize (supplemented by beans, groundnuts and sweet potato) were combined with yams above the southern limit of the shea tree and with cassava below.⁶⁵ This documents nutrition as a complex matter to deal with, since the knowledge about it was in its infancy: the pioneer studies completed by the League of Nations in the second half of the 1930s indicate an absence of information about the territories under colonial rule.⁶⁶ Moreover, it raised issues encroaching on well-established fields of investigation for colonial public policies such as agriculture and health. Thus, considering malnutrition and food-related deficiencies as a symptom and as a critical source of poverty was not an easy task: blaming ecological and epidemiological factors was more familiar.

The unity that characterises Northern Ghana, which includes geographical regions such as the Gonja and Dagomba savannas, the high plains of Wa and Mamprusi and the Gambaga scarp,⁶⁷ lies in the presence of the savanna that becomes a dry savanna in the northernmost districts (e.g. Navrongo and

⁶⁴ *Ibid.* 96.

⁶⁵ Dickson, *Historical Geography of Ghana*, 311.

⁶⁶ League of Nations, *Report on the Physiological Bases of Nutrition*, LoN Publications 1935.III.6 (Geneva, 1935); League of Nations, *The Problem of Nutrition*, LoN Publications 1936.II.B.3-6 (Geneva, 1936); League of Nations, *Final Report of the Mixed Committee of the League of Nations on the Relation of Nutrition to Health, Agriculture and Economic Policy*, LoN Publications 1937.II.A.10 (Geneva, 1937); League of Nations, *Survey of National Nutrition Policies*, LoN Publications 1938.II.A.25 (Geneva, 1938). These successive publications were key in capturing the attention on the need for nutrition studies and surveys in colonial territories.

⁶⁷ Boateng, *Geography of Ghana*, 141. Districts located in Northern Ghana were Lawra, Wa-Tumu, Gonja, Navrongo, Mamprusi and Dagomba.

Mamprusi districts).⁶⁸ A distinctive feature of the northern savannas is the occurrence of a long rainy season between March and October (the average annual rainfall is between 40 and 50 inches, with a decrease northwards), that is followed by a severe period of drought. In the Gonja and Dagomba areas water is scarce and the dry season makes soils unfit for cultivation. In the high plains of Wa and Mamprusi, seasonality is more marked from south to north, with a longer and more acute dry period. Both regions were free from tsetse, thus cattle rearing was common. The consequence is that *'agriculture is almost entirely confined to the rearing of the livestock and the cultivation of grains and other annual crops which can mature before the dry season or else are unaffected by it'*.⁶⁹ An important characteristic of the high plains was huge variations in population density: from 10 persons to the square mile in remote areas afflicted by river blindness such as Tumu, it reached 200 persons to the square mile in the Mamprusi district because of the greater fertility of the soils.⁷⁰ From these observations, the vulnerability of the daily life of northern peoples is highlighted: their difficulties in ensuring the adequacy of food intakes epitomized their hardship.

*On the whole, agriculture in the northern savannahs is far more precarious than elsewhere in Ghana. The rainfall shows wide variations from year to year, both as regards the amount and the time when it occurs, and the dry season is so intense that unless it has been preceded by a good harvest acute food shortages may result. Hence the name 'hungry season' given to this time of the year. Sometimes the rains of the wet season may be so poor that harvests are meagre and real famine conditions may threaten.*⁷¹

These comments emphasise the complexity of studying the biological roots of economic destitution since they reflected the combined effects of ecological, demographic and health factors. Moreover, a continuous theme in the primary

⁶⁸ Morgan and Pugh, *West Africa*, 209.

⁶⁹ Boateng, *Geography of Ghana*, 72.

⁷⁰ *Ibid.* 195.

⁷¹ *Ibid.* 73.

sources is the perception of Northern Ghana as a destitute area. The case of Vare, located on the bank of the Sissili river, was an example of a long-term cumulative process of biological impairments and economic destitution. In the late 1940s, an inquiry by a Medical Officer reported that 96 per cent of men and 69 per cent of the whole population suffered of onchocerciasis (i.e. river blindness).⁷² Endemic diseases such as malnutrition afflicted this area where the density of population had reached 400 persons to the square mile: in 1947, only thirty-two people in five compounds inhabited Vare.⁷³ These diseases led to a weakening of potential labour power, paving the way for a decreasing capacity to cultivate land for food. The officer referred to previous reports and stories offered by locals, stressing the chronic occurrence of famine, and then he focused on malnutrition:

*Malnutrition might be classed under agricultural factors. Any disease, moreover, may prevent proper cultivation, owing to weakness. Malnutrition is as much a result as a cause of depopulation; the few people of this type of place, especially if they have blind and useless 'mouths' to feed, are unable to cultivate their farms properly, or to do any hunting, owing to lack of manpower and cumulative weakness.*⁷⁴

The conditions surrounding the decay of Vare and the characteristics exhibited by destitution are evidence of structural poverty (i.e. loss of labour power through physical impairment). Nevertheless, even if it shows also the limitations of human adaptation to undernourishment and the mutual enhancement of malnutrition and endemic diseases, one should not conclude that conjunctural poverty embedded in seasonal hunger was a minor source of destitution. As early as in the 1920s, the adverse effects attached to season were noticed:

⁷² Rhodes House (Bodleian Library), Mss. Afr.s.141, Hughes, M. H., 1947-1949, 'Depopulation in the Sissili Area; Vare, a Study in Rural Decay; Onchocerciasis in the Volta River District'.

⁷³ *Ibid.* 32.

⁷⁴ *Ibid.* 28, 33.

Harvest is in June and July for early millet and November for guinea corn and late millet. The other crops are gathered at intervals between these dates. There is thus a long gap, which is tided over by storing the grain, but is most frequently a period of semi-starvation.⁷⁵

Interestingly enough, what were labelled by the 1931-32 Medical Report as exceptional circumstances occurred annually: *'for example prolonged droughts or after visitations from locusts, the population may have to subsist on a semi-starvation diet for a period. This occasional deprivation is probably confined to local areas in the Northern Territories'*.⁷⁶ During the 1960s, this seasonal pattern of quantitative food deprivation was comprehensively documented in the case of Nangodi in north-east Ghana: by investigating the correlation between rainfall, farming activity, food supplies and body weight, the annual cycle was clearly identified.⁷⁷ The minimum of bodyweight reached in April-June corresponded to the period of maximum physical activity, i.e. planting and weeding millet and guinea corn. The strategy of the farmer was to sell his livestock in order to secure sufficient cash to cushion hunger by buying grain. The nutritional status of the population was very vulnerable:

An FAO/WHO mission to Ghana in 1958 assessed the daily caloric requirements for young men engaged in moderately active work in the Northern Region as 2680 but in a typical area of north-east Ghana which is visited (Zuarungu, west of Nangodi) it found an average man-day values of 1600 calories after the harvest in July-November and 1120 in February later in the dry season. Serious deficits of caloric intake in relation to energy output were widespread.⁷⁸

This food shortage did not lead necessarily to economic destitution. Nevertheless, it certainly exerted cumulative effects over time that led those

⁷⁵ Cardinall, *The Natives of the Northern Territories of the Gold Coast*, 84-85.

⁷⁶ Gold Coast Government, *Medical Department Annual Reports* (hereafter MDAR) (1931-32), Part III (Hygiene and Sanitation), Section VI (Food in Relation to Health and Disease), 33.

⁷⁷ Hunter, 'Seasonal Hunger', 170.

⁷⁸ *Ibid.* 173.

Attending these schools was a means to escape seasonal hunger and to ensure regular food intakes: pupils were in a position to secure their own potential labour power and then their effective working capacity. In his personal diary of this tour in Northern Ghana, Dr. Kirk referred to a headmaster of the Native Administration school in Lawra who emphasised that '*a number of boys showed weaker gain of weight after the holidays than they did after the term had ended*'.⁸² In Salaga, the diet consumed in the school included only a small ration of beef and milk three times a week.⁸³ In Bakwu, the keeper of the prison complained about the cost of obtaining yams and said that he had sent his children back to the village since he could not provide them with the food to which they were accustomed.⁸⁴ Two main issues are suggested by these observations. On the one hand, even if the schools did not provide a diet significantly different from that offered in the rural households, food consumption was more regular and less sensitive to the vagaries of seasonality: children's health could only benefit from this more favourable situation. On the other hand, access to food was a key factor in enjoying a good physical condition: institutions such as schools ensured a relatively better access, but they were not immune from price fluctuations and only a tiny minority of children attended them. In Tamale's school where pupils could regularly eat soups, rice and porridge mixtures, farming activities helped to keep down food expenditures.⁸⁵

These observations made at the basic level of plates and daily food consumption give evidence that nutritional questions reflected broader questions related to the ability of Northern Ghana to secure its food self-sufficiency, both in quantitative and qualitative terms. There were distinctive

⁸² Rhodes House (Bodleian Library), Mss. Afr.s.1368, Kirk, J. B., 1942-43, 'Diary of Tours in the Gold Coast, as Medical Officer', 42.

⁸³ *Ibid.* 28.

⁸⁴ *Ibid.* 38.

⁸⁵ Rhodes House (Bodleian Library), Mss.Afr.s.2003, Fox (Yvonne, P.), 'Three Chapters of Memoirs on Life in the Northern Territories of the Gold Coast', 56.

needs: a destitute place like Vare suffered an absolute food and nutritional inadequacy, associated with durable impairments of locals' potential labour power; the Native Administration schools were in a relatively better position and they could try to improve the dietary content of meals consumed by their African pupils.

In 1938, a memorandum of the Director of Agriculture emphasised the impoverishment experienced in the northern savanna through an analysis of food shortages:

*Food supplies are often deficient, both in quantity and quality and water is scarce and, in the dry season, of very poor quality. Because of the distance of these areas from the roads and the relative poverty of the people, the northern savannas do not supplement their nutritional deficiencies by imported food-stuffs. Fruits and green vegetables, generally speaking such articles of diet as provide welcome and beneficial variety, are very lacking.*⁸⁶

The assessment of Dr. Purcell, Dietetic Officer in the late 1930s, on the socioeconomic dimension of malnourishment was clear: *'in the north, nowadays, food is usually available, but very many can ill afford to buy it.'*⁸⁷

The pattern of severe poverty in Northern Ghana is documented by the quantity and quality of nutritional constituents consumed daily on average per person. Regarding quantity, even by taking into account the seasonal effect that explained the very low consumption of vitamin C (i.e. fruits, vegetables and milk) and the food habits that explained the very low average consumption

⁸⁶Gold Coast Nutrition Survey, 'Human Nutrition - Standing Committee to Study the Important Question of', National Archives of Ghana (NAGA) ADM. 11/1/1294, Case SNA3/1937. Copy lent by Dr. G. Austin (London School of Economics). The file is hereafter referred to as 'Human Nutrition – Standing Committee'. The section on the Northern Territories is not included in this copy. Memorandum from G. S. Auchinleck, Director of Agriculture, 24.6.1938, 2.

⁸⁷ 'Human Nutrition – Standing Committee'. Dr. F. M. Purcell, 'Nutrition: Final Report on Nutrition Surveys in the Gold Coast', 1940, 143.

the most crucial and widespread problem was the shortage of animal protein'.⁹³ But Purcell pointed out the widespread effect of malnutrition in Northern Ghana, closely associated with endemic diseases. Besides, with an infant mortality rate estimated at 240 per 1000 in the Northern Territories in

⁸⁸ M. C. Latham, *Human Nutrition in Tropical Africa* (Rome, 1979), 75-89.

⁸⁹ Purcell, 'Nutrition: Final Report', 144.

⁹⁰ Public Record Office, CO 96, Gold Coast Original Correspondence, Document 751/14 (1938), Agriculture in North Mamprussi, Pamphlet by C. W. Lynn.

⁹¹ Purcell, 'Nutrition: Final Report', 146.

⁹² H. B. Waters, 'Agriculture in the Gold Coast', *The Empire Journal of Experimental Agriculture*, XII (1944) 46, 83-102.

⁹³ Patterson, *Health in Colonial Ghana*, 98.

1939,⁹⁴ it seems reasonable to consider food-related deficiencies as a serious threat to public health. In 1931, it was estimated at 214 per 1000, in 1968 at 208 per 1000;⁹⁵ Nangodi, a place investigated to study seasonal hunger in the 1960s, displayed a high mortality rate since '*data were collected from 214 mothers (of all ages) in 110 households which showed that 61 per cent of all offspring were deceased, not counting still-births*'.⁹⁶ The lack of accurate data and series and the various locations where figures were collected make it difficult to achieve a continuous tracing of malnutrition. But it can be suggested that, as a biological factor, it was key in undermining the potential labour power of a significant proportion of peoples inhabiting Northern Ghana.

Social position and geographic location was a critical factor in shaping the incidence of food-related deficiencies. The vulnerability of northern populations was embedded in their low immunity to endemic and epidemic diseases, a strong symptom of inadequate nutrition, and in their exposure to episodic famines. The most problematic question is to substantiate the complex links with economic destitution, since primary sources remain relatively silent on poverty while the distribution of malnutrition in the population is not well known. Further investigation about the reaction of the British government in the Gold Coast to nutritional issues will shed an original light on this matter. The controversy ignited by Dr. Purcell's nutrition report was well summarized in the following lines from a newspaper report:

The account of the suppression of the report attributed to a highly placed official at Accra (in the time of the Hodson government) and the remark that the report would not be published in London because nobody must be allowed to starve in the Empire... These photographs evoke the comment that the official concerned resorted to an ellipsis, his full meaning being that nobody must be allowed to know that

⁹⁴ Purcell, 'Nutrition: Final Report' 145, The marked incidence of infant mortality in Northern Ghana and its interplay with malnutrition are also documented in A. W. Cardinall, *The Gold Coast* (London, 1931), 212-232.

⁹⁵ Patterson, *Health in Colonial Ghana*, Table 39.

⁹⁶ Hunter, 'Seasonal Hunger', 173-174.

*anybody starves. Many who study the photographs will at first think they come from one of the poorer areas of India.*⁹⁷

III - POVERTY AND SOCIO-ECONOMIC DESTITUTION AMONG NORTHERN MIGRANTS: NUTRITIONAL STATUS, WORKING CAPACITY AND SURVIVAL

This chapter documents social and economic distress that afflicted northern migrants, either as labourers or as beggars, both in mining districts and urban areas. Nutritional status and food deprivation were sensitive indicators, and determinants, of the ability of these migrants to maintain an adequate working capacity. This causal relationship was key in northern peoples' participation in labour markets: this assumption is inferred from Dasgupta's nutritional economics, which is primarily based on a distinction between '*potential labour power*' and '*actual labour power*'.⁹⁸ Since unskilled northern labourers were engaged in heavy physical tasks requiring good health in general and adequate food intake to secure the '*conversion*'⁹⁹ between potential and actual labour power, evidence about nutrition deficiencies culminating sometimes in starvation is a means to trace various types of poverty they experienced.

The term 'socio-economic destitution' is used to suggest that urban social marginality was as important as economic hardship in generating poverty and destitution. The absence of local families open to migrants and in any case, the fading of the traditional cushion role played by kinship or ethnic networks

⁹⁷ *West Africa*, XXX, 1531 (June, 1946), 'Recall Dr. Purcell! (Facts from Photographic Records)', 512.

⁹⁸ Dasgupta, *Economics of Destitution*, 4. See also Chapter I for more details on Dasgupta's approach.

⁹⁹ *Ibid.*

were fuelling this marginality.¹⁰⁰ Health data are precious in capturing the impact of certain social diseases among migrants,¹⁰¹ as they show their particular exposure to these privation-driven diseases. Besides, the better statistical coverage of urban areas shows that some destitutes died by starvation and thirst either within towns or along the northward roads. These extreme cases are regularly reported in the Medical Department Annual Reports throughout the period examined. Even if the recorded figures are fairly low, it is significant that the incidence of extreme destitution among northern labourers was high enough to fuel official concern. The establishment of refuges or '*poor home*'¹⁰² along the main migration roads, and of a fund for repatriation of '*sick and derelict*'¹⁰³ labour and the provision of '*rest houses*'¹⁰⁴ open also for those returning home in the Northern Territories are evidence of the magnitude of privation. A major flaw of the sources is the absence of distinction between labourers coming from the northern savanna of the Gold Coast and those supplied by neighbouring regions -also savanna- outside the Protectorate. The absence of disaggregated data can be overcome in the case of organized labour such as in the mining areas, but urban unorganized labour (e.g. casual labourers) and begging are activities difficult to explore in this respect. Further research is needed regarding these different types of

¹⁰⁰ The role of the family in providing relief for the poor is emphasised by Iliffe, *The African Poor*, 179-180. Family and kinship ties have been key as sources of security (e.g. food). This analysis of family as a 'private' social security mechanism can be contrasted with the approach advocated by A. K. Sen, 'Economics and the Family', *Asian Development Review*, 1 (1983) 2, 14-26, who focuses on '*co-operative conflicts*', 17, within the family, hence disputing the magnitude of its benevolence.

¹⁰¹ Rhodes House (Bodleian Library), Mss. Brit. Emp. s.461, Scott (Dr David), 1948-1978, 'Reports and Statistics on Various Epidemic Diseases in Ghana (1901-1960), with Reports, Texts of Speeches, Notes and Articles on Cerebrospinal Meningitis, the Epidemiology of Lake Volta, Health in South Asia, and Man-Made Lakes; also Related Photographs', Third file on relapsing fever and Fourth file on plague.

¹⁰² *MDAR* (1929-30), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 43.

¹⁰³ *MDAR* (1939), Part I (Public Health), Section V (Hygiene and Sanitation, Labour Conditions), 4. The organisation of *MDARs* was modified between 1939 and 1945 since war-time medical reports were shorter.

occupations. Sources suggest migrant labourers were in occupations sensitive to the vagaries of economic cycles: their capacity to maintain nutrition and food sufficiency was undermined by 'conjunctural' poverty according to Iliffe's terminology, while for some of them this temporary scarcity could degenerate to genuine destitution.

*Why this shockingly heavy mortality of men in the prime of life? It is due to immigrant labour from French territory seeking employment in the relatively prosperous Gold Coast. On the long journey from remote areas in the interior these searchers for work are undernourished and often arrived at their destination in an enfeebled condition. Uncared for, hundreds succumb annually to exposure, lack of food and bad housing ... Action is being taken to aid the destitute immigrant in various directions.*¹⁰⁵

This brief account, by Edward M. Falk, provides an interesting preliminary, since it raises questions pertaining to the various dimensions of hardship faced by migrants and to the problematic interpretation of primary sources. The striking features of poverty among these northern migrants as perceived by Falk in the early 1940s, were heavy mortality rates, precarious physical conditions epitomized by undernourishment, and adverse living conditions: the acuteness of their hardship is emphasised in the use of the word '*destitute*'. The need for corrective public actions was also put forward, but without specific recommendations. Regarding the interpretation of this source, one should bear in mind that such an article was biased by a sense of dramatization. Nevertheless, the bulk of data and comments extracted from the 1938 Medical Department Annual Report by the journalist in 1940 has been confirmed by our own investigation of the same document.

¹⁰⁴ MDAR (1939), Part I (Public Health), Section V (Hygiene and Sanitation, Labour Conditions), 4.

¹⁰⁵ *The West African Review*, 11, 151 (April, 1940), 'Life and Death in the Gold Coast (Heavy Mortality among Immigrant Labourers)', by Edward M. Falk, 10.

Queries are raised. The mortality incidence was inferred from recorded deaths in thirty-five towns, but it sounds reasonable to see it as a minimum estimation because of a high probability of unrecorded deaths within urban centres and in rural areas. The origin of the migrants referred to in the 1940 article was outside the Northern Territories, but the *MDARs* made it clear how difficult it was to differentiate among individuals labelled as 'northern peoples'. Finally, the emphasis on the magnitude of poverty both in degree (i.e. destitution) and incidence (i.e. '*hundreds succumb annually*') was a relative appreciation: it seems that official records captured mostly extreme wretchedness embedded in acute physical want and deficiencies. The attraction exerted by the '*relatively prosperous Gold Coast*' relies implicitly on a comparative assessment whose criteria were not qualified: did an economic 'pull' factor suffice to characterise the motives behind migration from the Northern Territories and beyond? Besides, the Gold Coast *MDARs* captured individuals' health status at the very end of a process of destitution, thus they did not explore its dynamic which is the very heart of the matter. Our focus on nutrition should help gain insights on this gradual impoverishment. Ultimately, the effective participation of these paupers in labour markets can be discussed by attempting to give some historical flesh to Dasgupta's intuition about the single asset owned by the poor, namely their potential labour power.

The huge toll paid to tuberculosis (i.e. 61 per cent of the deaths in the 25/45 age male group)¹⁰⁶ is not really surprising for at least two reasons. First, as suggested by Rotberg and Rabb,¹⁰⁷ there is a definite nutritional influence on the incidence of tuberculosis. As early as the late 1930s, there was an official recognition of this nutritional effect documented in the case of the Gold Coast:

Broadly speaking, the diet is deficient in those animal and vegetable foodstuffs which provide fat, good protein, vitamins and mineral matter ... The protein content is generally very low. This is especially

¹⁰⁶ *Ibid.*

¹⁰⁷ Rotberg and Rabb, *Hunger and History*, 308.

*noticeable in the miners' diet ... Food deficiency is a predisposing factor in many local conditions. Tuberculosis, the pneumonias and bronchitis are very prevalent and together account for 30 per cent. of all registered male deaths.*¹⁰⁸

The abnormal death rate that afflicted northern migrants can be seen as a symptom of deficient nutritional intakes leading to a higher vulnerability to infectious diseases, while capturing as well an impairment of their working capacity -namely '*the maximum power (i.e. maximum work per unit of time) someone is capable of offering*'.¹⁰⁹ Latham emphasises the respective crucial contributions made by fats as '*an economic way of storing energy*' and proteins '*necessary for the growth and repair of the body*' in preventing protein-energy malnutrition.¹¹⁰ Medical officers were aware of this biological interplay:

*Dr. H. C. Quin, Senior Health Officer ... drew attention to the fact that the miner's diet lacks protein, and expressed the opinion that a diet composed chiefly of starch and cellulose was a poor one for men on whom a heavy physical demand is made. This is really more important, it is thought, than Dr. Quin implied, for the question of diet, important as it is from the standpoint of energy production and tissue repair, is also very important when the vitamin constituent protecting against lung disease is considered ... this factor would appear to turn on the almost total absence of animal fat in the diet.*¹¹¹

Second, the exposure of northern labourers to tuberculosis was linked to their occupations and living conditions. On the one hand, some of them were engaged in mining activities favourable to most respiratory infections: from 1936 onwards, the MDARs included a section dedicated to sanitary conditions

¹⁰⁸ Economic Advisory Council, Committee on Nutrition in the Colonial Empire (1939), *Summary of Information Regarding Nutrition in the Colonial Empire*, Part II, Cmd. 6051, 35-36.

¹⁰⁹ Dasgupta, *Nutritional Status, the Capacity for Work, and Poverty Traps*, 11.

¹¹⁰ Latham, *Human Nutrition in Tropical Africa*, 60-66, 113-130.

¹¹¹ 'Human Nutrition - Standing Committee', Note by the Director of Medical Services, Medical Department (3.2.1937), Human Nutrition in the Gold Coast, Defective Nutrition, 5-6.

prevailing in mining districts.¹¹² It is a clear indication of the official concern regarding migrants' health.

The incidence of tuberculosis was emblematic of the significant impact of "social diseases" generally in the labour force. The unpublished papers of Dr. David Scott¹¹³ are illuminating on the social dimension of certain diseases in the Gold Coast and, in a later publication, he made an unambiguous conclusion on the incidence of cerebrospinal meningitis (CM) and relapsing fever among northern potential workers:

*Epidemics of this disease [CM] stem primarily from socio-economic factors, being largely determined by the effect of intermittent, yet relatively prolonged, adverse changes of climate on a population not materially prepared for them. The inference which may be drawn is important: if the standards of housing, education, and of living can be sufficiently raised then epidemic cerebrospinal meningitis would no longer occur ... Epidemics [relapsing fever] were often associated with periods of economic and social difficulty; unemployment resulted in overcrowding when lice would become widespread. With food shortage, resistance to infection declined.*¹¹⁴

Hence, primary sources document major risks and distress that characterized labour migration from the Northern Territories. Two broad categories can be distinguished: health and biological hazards (e.g. undernourishment and epidemics) and socio-economic hazards (e.g. unemployment and the absence of 'private' social security). Capturing their respective manifestations is easier than tracing a clear direction of causality between them, especially as officers in charge of collecting data and information did not themselves grasp the complex interplay between biological and socio-economic factors leading to destitution.

¹¹² MDAR (1936), Appendices, Section VI (Health Branch), 97-102.

¹¹³ Rhodes House (Bodleian Library), Mss. Brit. Emp. s.461, Scott (Dr David), 1948-1978.

Scott's analysis of the incidence of CM offers a striking comment: '*the effect of intermittent, yet relatively prolonged, adverse changes of climate on a population not materially prepared for them*'.¹¹⁵ The fact that northern migrants within urban areas were still exposed to climatic factors is evidence that they did not escape the vagaries of nature, epitomized in the northern savanna by the hungry season. The 1938 *MDAR* associates closely a decline in the general and infantile mortality rates with an unusual absence of the harmattan¹¹⁶, and the 1950 *MDAR* exhibits a blatant pattern of seasonality of recorded deaths.¹¹⁷ Thus migrations were not a guarantee of escaping seasonality, but they led to a different experience of it: no absolute want for food, but a higher sensitivity to certain epidemic diseases combined with chronic malnutrition. It is a confirmation of Iliffe's assumption regarding urban

Yet if towns rarely created poverty, they gave it new forms ... So towns pioneered the transition in the nature of poverty ...'.¹¹⁸

In other words, seasonality as a driving component of "conjunctural" deprivation in the savanna remained a significant factor shaping the daily experience of poor migrants, even if it was combined with new forms of subsequent biological impairments. It is a crucial consideration since survival strategies adopted to avoid economic destitution were adapted to urban constraints. It highlights also the need for a definition of poverty that captures the two following characteristics: *sufficiency*, which is advanced by Iliffe as a criterion that does full justice to Africa's distinctiveness regarding poverty;¹¹⁹ and *vulnerability*, that epitomizes the '*continuous friction between the forces of constraint and the capacity to adapt*'.¹²⁰ Climate, food production, epidemic

¹¹⁴ D. Scott, *Epidemic Disease in Ghana (1901-1960)* (London, 1965), 112, 121.

¹¹⁵ *Ibid.*

¹¹⁶ *MDAR* (1938), Part II (Public Health), Section I (Historical Survey).

¹¹⁷ *MDAR* (1950), Table XI, 'Seasonal Incidence of Births and Deaths', 7.

¹¹⁸ Iliffe, *African Poor*, 164.

¹¹⁹ *Ibid.* 2-4. See also Chapter I for more details on Iliffe's approach.

¹²⁰ M. Livi-Bacci, *Population and Nutrition (An Essay on European demographic History)* (Cambridge, 1991), 111.

¹²² According to this description of migrants' condition, they experienced a cumulative lack of *sufficient* food intake during their journey, before facing *vulnerability* embedded in the form of uncertain employment: the importance of '*regular work and food*' is often advanced in the *MDARs*, especially for casual labourers, as the primary asset against destitution. In other words, absolute physical want which might degenerate into forms of 'structural' poverty- characterized migrations from the Northern Territories and beyond, and relative privation -transient in the sense it does not alter your long-run working capacity- was a probable outcome if northern peoples failed to participate regularly in labour markets. The following document is clear enough on the former:

¹²¹ *MDAR* (1934), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 21.

¹²² E. Le Roy Ladurie, *Les Paysans du Languedoc* (Paris, 1969), 10.

*The [Labour] Department renders important service by accommodating and feeding down-and-out labourers at Kumasi, Salaga and Tamale ... Formerly such unfortunates were often discovered exhausted and starving on roads leading to their home ... Thirty-seven camps or shelters have been provided by the Government along the highway to the North in which labourers are given accommodation for a token payment.*¹²³

Such an approach to poverty provides a promising articulation with the objective of tracing economic destitution for two main reasons. The first lies in the need to capture the significant differentiation to be made among the lower segments of the social scale between the poor and the destitute.¹²⁴ The second relates to the identification of poverty traps such as defined in nutritional economics, namely a consequence of the violation of the principle of horizontal equity '*by which I mean that household (or personal) income can be a discontinuous function of household (or personal) characteristics*',¹²⁵ especially in an economy not wealthy in the aggregate and marked by a highly unequal distribution of assets (e.g. potential capacity for work). Regarding the question of socioeconomic differentiation among the poor themselves, the magnitude of nutritional *sufficiency* and *vulnerability* is a key benchmark. The former means that energy intake should equal energy expenditure, i.e. '*the energy balance condition*'.¹²⁶ Hence a default on this biological requirement might damage your working capacity since the maintenance of this condition demands either a loss of weight or a reduction of activity in case energy intake is not sufficient.¹²⁷ At this stage, *vulnerability* plays its part. The latter denotes the risk that undermines the very maintenance of this energy balance over time. The idea is that the destitute exhibit severe signs of nutritional

¹²³ *The West African Review*, 13 (December, 1942) 183, 'Labour Problems of the Gold Coast are being Faced', 18.

¹²⁴ See Chapter I, 11-13.

¹²⁵ Dasgupta, *Nutritional Status, the Capacity for Work, and Poverty Traps*, 4.

¹²⁶ Dasgupta, *Inquiry into Well-Being*, 417.

¹²⁷ *Ibid.* 418-420. At this stage of research, the crucial distinction between the fixed component of the individual's energy expenditure, i.e. the maintenance requirement,

insufficiency and a chronic *vulnerability*, but the poor experience relative nutritional *sufficiency* and a less pronounced exposure to *vulnerability*. With respect to the absence of horizontal equity, the emergence of poverty traps where defective nutritional status might lead to “*locked-in-effects*”, *in the sense that destitutes on average remain destitutes and do not enjoy periodic spells of prosperity, and the well-off remain well-off and do not periodically become destitute*’,¹²⁸ suggests the existence of critical thresholds both in *sufficiency* and *vulnerability*.

Between the poor and the destitute, the ‘*severity of nutrition risk*’¹²⁹ is unevenly distributed, a situation embedded in the fact that a rising severity in nutritional inadequacy reflects a narrowing of individuals and communities’ choices regarding food intake. As a consequence, the potential capacity for work is not equally distributed: horizontal inequity leads to discrepancy in the ability to participate in labour markets.

The historian is interested in changes over time in the very nature of nutritional impairments and in the distribution of *sufficiency* and *vulnerability*. The questions to elaborate are why some northern migrants fell into poverty traps, and if they experienced a ‘locked-in’ effect, did they try primarily to escape economic destitution? This question stems from the preliminary exploration of primary sources, that convey the idea that survival strategies are based on options to cope with ‘conjunctural’ or ‘structural’ poverty. Thus poor northern peoples made choices under various sets of constraints pertaining to the maintenance or the improvement of their living standard. A focus on nutritional status and capacity for work does not assume that economic destitution was a process only driven by biological determinism. It elaborates the following question: why did some individuals or communities remain exposed to

and the variable component, i.e. external work, is premature. The priority is to understand Dasgupta’s intuitions and how they can serve the historian.

¹²⁸ Dasgupta, *Nutritional Status, the Capacity for Work, and Poverty Traps*, 8.

biological distress such as malnourishment while growing income opportunities and commoditization should have provided them with supplementary survival options?

The core issue is the extent to which choices made by these poor individuals and communities can be affected by nutritional risk: the nature of adaptive behaviours. The sources permit some examination of 'private' social security in times of 'conjunctural' poverty throughout the 1930s and of begging for those experiencing 'structural' poverty.

*Unemployment is rife, and many of the immigrant labourers have returned home. Those remaining are largely dependent for housing and maintenance on "brothers" still in employment ... Wages have fallen considerably and a certain amount of suffering is evident, for those really in work are really solicitous for their out-of-work fellow countrymen, but on the low scale of pay prevalent to provide both for these and for themselves is exceedingly difficult ... The prices of staple home-grown food-stuffs has indeed fallen, but not sufficiently to counter-balance the low rate of wages, and the extra burden of supporting unemployed fellow countrymen which falls on those still employed.*¹³⁰

Two important effects are documented. On the one hand, the fall in domestic food prices that lagged behind that of wages. The 1931 *MDAR* had stressed an increasing reliance among urban workers on imported tinned foodstuffs,¹³¹ thus decreasing prices of local food told only part of the story, all the more since prices of imported food might not have experienced a similar fall.¹³² For northern labourers dependent on food markets for their subsistence, the sudden *vulnerability* of their income led to a growing constraint on the maintenance of *sufficiency*. Nevertheless, if they switched their resources from

¹²⁹ Lipton, 'Seasonality and Ultrapoverty', 5.

¹³⁰ *MDAR* (1932-33), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 32.

¹³¹ *MDAR* (1930-31), Part III (Hygiene and Sanitation), Section VI (Food in Relation to Health and Disease), 40.

¹³² Further research is needed to find series of food prices and wages.

cheap imported food towards domestic food, it amounted to an adaptation to the narrowing of their choices regarding food consumption (in material terms, albeit no necessarily in terms of tastes and the social dimension of food consumption). On the other hand, the *vulnerability* was reinforced by the provision of 'private' food security for unemployed countrymen, a behaviour that undermined provider *sufficiency* over time. Two key distinctions may be introduced here, namely short run *versus* long run nutritional risk and individual *versus* collective allocation of risk. A transient failure to secure *sufficiency* for a single northern wage-earner, for instance due to a negative shift in economic circumstances such as that occurring in the early 1930s in the Gold Coast, could be overcome by relying on various 'solidarity' networks. A direct consequence of this choice of wage-sharing as an option for survival was:

*Unemployment is common. Labourers still in employment look after and feed their less fortunate "brethren". This human practice, however, cuts both ways and the donor suffers the same degree as the recipient ... Labourers are more and more tending to adopt a communal type of living, feeding in messes and crowding into rooms until filled at their utmost capacity.*¹³³

Clearly, the agglomeration of individuals facing severe nutritional risk could lead to a weakening of collective *sufficiency* within communities usually endowed with enough resources to fend for themselves. The 1944 *MADR* documents the persistence of this behaviour, but although the rising cost of living was blamed for undermining families' ability 'to provide themselves with an adequate and sufficiently nutritious diet',¹³⁴ the incidence of malnutrition was seen as chiefly qualitative (i.e. narrowing of choices or inadequate feeding habits) rather than quantitative (i.e. absolute malnourishment). This sounds a contradiction since rising food prices could significantly affect *sufficiency* and not simply *vulnerability*, thus leading to genuine malnourishment in such

¹³³ *MADR* (1933-34), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 36.

¹³⁴ *MADR* (1944), Part I (Public Health), Section I (General), 2.

circumstances, all the more since the provision of 'private' food security was not assured.¹³⁵ Schildkrout¹³⁶ emphasises that '*eating arrangements*'¹³⁷ among migrant communities in Kumasi varied significantly and depended on various factors (e.g. religious customs that influence feeding), but food-sharing was not guaranteed even in times of hardship for those who did not belong to any network. Interestingly enough, the refuge established in the Kumasi Zongo was '*controlled by the Health Department of the Kumasi Public Health Board, assisted by Malam Sallow Katsina, the Srikin Zongo*'.¹³⁸

Begging sheds an interesting light on the dynamic behind 'structural' poverty. As a preliminary, begging is supplementary evidence of limitations exhibited by 'private' food security arrangements: socio-economic destitution can be the ultimate result of this constraint on adaptation to extreme nutrition risk. While begging can be seen as the last resort to cope with poverty, it can also be a choice by the destitute whose capacity for work is so impaired that the violation of the energy balance condition leads energy expenditures to be mostly dedicated to the satisfaction of basic maintenance requirements (i.e. the fixed component of energy output in Dasgupta's approach). Thus the potential working capacity is significantly damaged and the ability to participate in labour markets is under constraint.¹³⁹ The very important idea to

¹³⁵ A suggestion that is closely related to nutritional economics: in the absence of relief options, a lack of *sufficiency* has a biological cost since the variable component of the individual's energy expenditure (i.e. external work) will be reduced to secure the fixed component, namely the maintenance requirement. Hence, the cost of such an adaptation is significant enough to speak in terms of malnourishment.

¹³⁶ E. Schildkrout, *People of the Zongo (The Transformation of Ethnic Identities in Ghana)* (Cambridge, 1978), 108-109.

¹³⁷ *Ibid.* 109.

¹³⁸ *MDAR* (1929-30), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 43.

¹³⁹ Such an erosion of the ability to participate in labour markets is a core characteristic of poverty traps. It can even play its part in preventing poor people from migrating, thus harbouring poverty traps that might explain the fact that migration as a relief option is not necessarily open to the poor. These two assumptions are addressed in two different perspectives by K. Hampshire, 'Poverty and Labour Migration among

be conveyed here is the differentiation among northern migrants regarding their reliance on wage labour to sustain their living. This explains why the expression 'northern migrants' has been preferred to that of 'northern labourers', since the occupational pattern of these northern peoples was characterised by three types of activities. The colonial administration identified two of them, namely organized (i.e. government, mining companies, contractors and lighterage companies) and unorganized labour (i.e. cocoa farms, portering jobs about lorry parks, markets and railway stations),¹⁴⁰ but it was silent on begging:

*The newly arrived immigrants are usually, in poor condition, undernourished and frequently diseased ... Steady employment and regular pays make an extraordinary and rapid change in their condition ... Immigrant labour may seek work in employment capable, roughly, of sub-division into two categories -organised and casual ... The casual labourers are a source of a good deal of anxiety to the authorities. They take up no fixed abode and spend none of their taking in rent. They live anywhere. Their physical condition does not improve much, if at all during their sojourn. They save every penny possible, and, when they deem they have made sufficient, they depart for their homes.*¹⁴¹

The significant factor regarding economic destitution is the regularity of wage that was secured only in the case of 'steady employment'. Casual labourers' sufficiency was under constraint since their concern to save resources affected their choices in terms of food consumption.¹⁴² Among these two groups, the provision of 'private' social/food security was possible, but the participation in

the Fulani of Burkina Faso', UCL West Africa Seminar (November 1997), Department of Anthropology, Unpublished research, author's personal notes, and C. Ó , 'Migration as Disaster Relief: Lessons from the Great Irish Famine', *European Review of Economic History*, 1 (1997) 1, 3-25.

¹⁴⁰ Classification according to MDAR (1938), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 34.

¹⁴¹ MDAR (1935), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), 25.

¹⁴² Rhodes House (Bodleian Library), Mss. Brit. Emp. s.461, Scott (Dr. David), 1948-1978, Third file on relapsing fever, extract from a report made by Kumasi's Medical

wage-sharing was reserved to wage-earners only. Besides, beggars could not necessarily benefit from alms in money or in kind: '*In Kumasi the grain is then given as sadaka, a gift of alms, to some unrelated person -theoretically to a deserving pauper, but most often to an influential malam*'.¹⁴³ Severe uncertainties characterized the daily life of beggars, but the unskilled casual labour market entailed a moderate nutrition risk since a good physical condition was necessary to fulfil potential capacity for work.

A brief analysis of the results presented in a social survey carried out in 1948-49 in Sekondi-Takoradi, a southern town, provides some interesting material.¹⁴⁴ Unemployment was closely associated with destitution: begging was the only survival option. Northern peoples represented 53 per cent of the destitutes surveyed, and among these beggars, 53 per cent were doomed to beg because of a poor health condition embedded in nutritional deficiencies; furthermore, 40 per cent of beggars had suffered from '*sheer poverty due to continued unemployment*'.¹⁴⁵ Even if one should not be tempted by the idea of a mere biological road to destitution, these northern beggars experienced poverty traps especially for those who were 'locked in' persistent unemployment and those afflicted by diseases. The magnitude of destitution was made fiercer by weak *sufficiency* and acute *vulnerability*. The idea that emerges is that nutritional adaptation to privation is not cost-free (e.g. a rising exposure to certain diseases): the price can be a lower potential capacity for work undermining participation in labour markets. A further aspect of begging that stresses its validity as a survival option under nutritional distress is suggested in the fact that in the 1950s, earnings on beggary among Hausa

Officer dated 1930-31. The latter stressed this allocation of resources at the expense of food consumption among northern porters, called *Kaya Kayas* in Hausa.

¹⁴³ Schildkrout, *People of the Zongo*, 110.

¹⁴⁴ K. A. Busia, *Report on a Social Survey of Sekondi-Takoradi* (Accra, 1950).

¹⁴⁵ *Ibid.* 109-110. Percentages are my own calculations.

located in Gold Coast towns were similar to those on unskilled casual labour according to an official report.¹⁴⁶

'There is evidence that access to wage-labour was important in preventing starvation'.¹⁴⁷ this assertion of Iliffe regarding rural poverty might well be relevant for urban poverty. According to Figure IV (Appendix), recorded deaths by starvation rose from the second half of the 1930s, but there is a disturbing mismatch between figures presented in *MDAR* statistics and those given in comments by Medical Officers who were tempted *'to attribute the increase in the proportion of patients suffering from starvation to the continued low prices in cocoa and persistent unemployment'*.¹⁴⁸ Further work is needed to elucidate this matter.

Finally, it seems difficult to make a clear distinction between 'conjunctural' and 'structural' poverty because of the cumulative effects of nutritional deficiencies. The latter can have been triggered by the former, so focusing on *sufficiency* and *vulnerability* is a solution to overcome this issue. For instance, *'professional beggars'*¹⁴⁹ seen as 'locked in' 'structural' poverty could see their earnings shaved in times of recession, thus they would also face 'conjunctural' poverty. The *MDARs* are silent on beggars, but some of the voices might be recovered from reports on asylums,¹⁵⁰ where colonial and indigenous authorities sent destitutes not considered as 'deserving' paupers, whose liberty

¹⁴⁶ Iliffe, *African Poor*, 190. Besides, a significant proportion of beggars was *'able-bodied'*. The vagueness of this term used by Iliffe is problematic. See Gold Coast Government, *Report on the Enquiry into Begging and Destitution in the Gold Coast 1954* (Accra, 1955) and M. Clarkson, 'The Problem of Begging and Destitution in Urban Areas of the Gold Coast', *Proceedings of the Fourth Annual Conference of the West African Institute of Social and Economic Research* (Ibadan, 1956), reprinted, 142-148, both in Iliffe, *The African Poor*, 359.

¹⁴⁷ *Ibid.* 158.

¹⁴⁸ *MDAR* (1935), Part II (Public Health), Section II (Principal Factors affecting Health during 1933-1934), 10.

¹⁴⁹ Iliffe, *African Poor*, 190.

was usually tolerated. None of the northern migrants experiencing socio-economic destitution was free from hunger or physical want. Their choices were strictly constrained, ultimately bounded by their physical condition. Even the *bon choix des misérables* ¹⁵¹ did not spare them, which is critical to bear in mind while examining public policies.

IV - NUTRITION AND THE BLINDNESS OF PUBLIC POLICIES: ‘COOK BETTER’ VERSUS ‘EARN MORE’

This chapter examines the extent to which the emergence of nutrition as a science in the 1930s was followed by effective and corrective public policies addressing the biological roots of destitution in Northern Ghana. A significant symptom of this official awareness regarding nutrition and food policies was the conduct of surveys throughout the British Empire on the eve of the Second World War. In the case of the Gold Coast, the politics of the survey made led to a ban on its publication: apparently, the extent of food deprivation in Northern Ghana contrasted sharply with the official view that no starvation could occur in the British colonies. Such a blindness of public policies could be partly explained by the moral preconceptions that shaped colonial perceptions of Africans. The belief that northern peoples should ‘cook better’ to avoid nutrition deficiencies led to an inadequate recognition that their capacity to ‘earn more’ was key to avoid impairments of their potential labour power.

Two important historical themes are traced through primary sources. First, poverty among northern migrant labourers, since nutritional status and food

¹⁵⁰ The series of *MDARs* is well documented on asylums. Nutritional data are exceptionally detailed, e.g. ration scales.

¹⁵¹ Preliminary quotation, by Denis Diderot.

deprivation were sensitive indicators and significant determinants of the capacity of these labourers to maintain an adequate working capacity that could be sold on labour markets. They suffered social and economic uncertainties, and thus were exposed to socioeconomic destitution since social marginality was as important as economic hardship in generating destitution. Secondly, health data pertaining to food-related deficiencies are presented since they are precious in capturing the incidence of social diseases. Since none of the secondary sources pays a detailed attention to them, I have reported the raw data in an appendix (Tables I and II) that is illustrated with figures (Figures 1 to 5). They stem from the *Medical Department Annual Reports* (the MDARs, 1929-1955).

Following the publication in 1935 by the League of Nations of a pioneer report on nutrition as a matter of public health¹⁵², the Colonial Office promptly reacted by sending copies of relevant League of Nations publications to British Governors in the Empire. In order to ensure '*the application of the new knowledge to the economic and agricultural problems of the present day*'¹⁵³ and according to the assumption that the increased consumption of certain foodstuffs would have positive effects on health and economic development in general, three main questions should be addressed: '*(i) were they any practical means of increasing consumption? (ii) would such an increase in consumption contribute to the improvement of the world's agricultural position? (iii) what would be the effect of such improvement on the general economic situation?*'.¹⁵⁴ While the health dimension of nutrition was recognised, since '*there can be little doubt that every part of the Colonial Empire would benefit*

¹⁵² League of Nations, 'Report on Nutrition and Public Health', by E. Burnet and W. R. Aykroyd, *Quarterly Bulletin of the Health Organisation* (Geneva, 1935), 323-474. This was later supplemented by a more general document: League of Nations, *The Problem of Nutrition*, LoN Publications 1936.II.B.3-6 (Geneva, 1936).

¹⁵³ Colonial Office Reports, *Nutrition, Policy in the Colonial Empire*, Despatch from the Secretary of State for the Colonies (18th April 1936), No. 121, 3-4.

¹⁵⁴ *Ibid.* 4.

from an improved nutrition of its peoples',¹⁵⁵ the economic dimension was also clearly emphasised as a second priority. The response of the Sierra Leone Governor to this despatch, strikingly more substantial than that of the Gold Coast Governor, acknowledged the extent of the issue: '*the numbers of the native population in many parts of the Empire are stationary and the general level of their physique is very considerably below the standard which is demanded by consideration both of their welfare and their economic prosperity*'.¹⁵⁶

Three convergent sets of evidence show that the response of the Gold Coast administration was rather cautious and to a certain extent inadequate. Between 1937 and 1940, the Standing Committee on Human Nutrition met four times only.¹⁵⁷ Medical, veterinary and education services were represented at the highest level, joined by public personalities such as the Principal of Achimota College and experts such Dr. F. M. Purcell, Dietetic Officer after his appointment in 1939.¹⁵⁸ Nevertheless, the contribution of the Gold Coast administration to the comprehensive Colonial Office Report on Nutrition published in 1939¹⁵⁹ was modest. It was an extended version of a memorandum written by the Director of Agriculture in 1938 that is quoted in Chapter II. Various comments are worth quoting, for two reasons. On the one hand, they give a flavour of the complex questions raised by malnutrition, but interestingly enough with a significant attention to poverty which was in line with the economic objectives set in the 1936 despatch. On the other hand,

¹⁵⁵ *Ibid.* 5.

¹⁵⁶ Colonial Office Reports, *Papers Relating to Health and Progress of Native Population in Certain Parts of the Empire*, (1931), No. 65, 128 and 133.

¹⁵⁷ 'Human Nutrition - Standing Committee', Minutes of the Standing Committee on Human Nutrition.

¹⁵⁸ Patterson, *Health in Colonial Ghana*, 98-99. An interesting account of this period since it is based on the consultation of primary sources in Ghana.

¹⁵⁹ Economic Advisory Council, Committee on Nutrition in the Colonial Empire (1939), *Nutrition in the Colonial Empire*, Part I, Cmd. 6050, and *Summary of Information Regarding Nutrition in the Colonial Empire*, Part II, Cmd. 6051.

Northern Ghana was clearly a matter of concern, but with an evident focus on education and 'enlightenment' of Africans either as farmers or food consumers.

Broadly speaking, the diet is deficient in those animal and vegetable foodstuffs which provide fat, good protein, vitamins and mineral matter. It is believed, but not proved, that the calcium content of the diet is poor... There is also a definite deficiency of vitamin C in the diet of many of the poorer classes... Food deficiency is a predisposing factor in many local conditions... There seems to be a close relationship between undernutrition and the incidence of leprosy in certain areas... The general population cannot afford to buy meat. The introduction of tinned foodstuffs has proved to be a mixed blessing in rural areas. Of poor quality and low food value, tinned foods may be obtained on credit, whereas local meat and fish must be paid for cash down... Yams, cassava and groundnuts are transferred from agricultural districts, and on the constant transference from one district to another has, on occasion, actually resulted in famine in producing area... Practical measures for improvement of nutrition: at present, these include the promotion of mother and child welfare; health visiting; school instruction in food hygiene and diffusion of knowledge and information to Medical Officers and social workers... In the populated areas of the Northern Territories the main lines of work are control of livestock diseases; improvement of pasturage; provision of water supplies; stimulation of mixed farming; propagation of improved strains of cattle; breeding and introduction of new types of crops.¹⁶⁰

Regarding nutritional status and economic destitution, four important observations were suggested. Peoples of the Gold Coast afflicted by poverty suffered a deficient diet in some basic nutritional components such as vitamin C; food-related deficiencies were associated with a greater vulnerability to endemic and epidemic diseases; access to foodstuffs such as meat was income-related, which would document a causation from poverty to malnutrition; finally, some districts did experience famine due to their supply of foodstuffs to other areas and generally the northern pattern of agriculture was considered as a driving force behind malnourishment. As a consequence, it was doomed to be uplifted through education both with respect to feeding habits and farming practices. It was a huge task, and in fact the impression is

¹⁶⁰ *Ibid.* Part II, 35-38.

that the incidence of malnutrition epitomized various key backlogs in the economic and social development of the Northern Territories and the Gold Coast in general. The specific needs of Northern Ghana, such as the provision of food to face seasonal hunger and the improvement of crops cultivated, were largely ignored. Evidence of that is given in the severe assessment made by S. Culwick, Nutrition Officer in the Colonial Office, who in 1943 received medical reports of severe destitution occurring not even during the driest period of the hungry season:

*Two and a half years ago the Nutrition Committee agreed to recommend the formation of a local Nutrition Committee in the Northern Territories, to submit proposals for immediate measures to meet these local shortages, with the photographs accompanying Dr. Purcell's draft report showed to amount to real starvation. From the present Report by the Department of Medical Services it would appear that has not been followed up.*¹⁶¹

The controversy surrounding Dr. F. M. Purcell's report is the clinching evidence of the lack of commitment of the Gold Coast government in the quest for a nutrition policy. The despatch sent in 1938 by the Secretary of State for the Colonies, W. O. Gore, which stressed the relatively better nutritional value of skimmed milk compared to that of whole milk,¹⁶² is a further indication of the importance attached to nutritional issues in London. The fact that Lord Dufferin, chairman of the Nutrition Committee in the Economic Advisory Council, took part in a broadcast on the BBC Empire service on July 31st 1939 dedicated solely to the Nutrition Report¹⁶³ gives further credence to the Colonial Office's interest. Interestingly enough, although Dr. F. M. Purcell completed his draft report in 1940,¹⁶⁴ it was received in London only in May 1942.¹⁶⁵ Northern

¹⁶¹ Public Record Office, CO 859, 115/3 (1944-46), Gold Coast, Note by S. Culwick (5/11/1943).

¹⁶² Public Record Office, CO 859, 14/6 (1939), Report on Nutrition in the Colonial Empire, Circular Despatch of the 6th of May, 1938.

¹⁶³ *Ibid.* Draft Circular of November 8th 1939, Mr. Eastwood, Joint Secretary to the Committee on Nutrition in the Colonial Empire.

¹⁶⁴ Patterson, *Health in Colonial Ghana*, 99.

Ghana, and especially the impoverishing effects of seasonal hunger, were at the core of the row. In December 1941, the Director of Medical Services in the Gold Coast sent a note to the Colonial Secretary in Accra presenting the achievements of the Nutrition Committee in order to dismiss criticisms.¹⁶⁶ In July 1943, S. Culwick mentioned the recent resignation of Dr. F. M. Purcell and stressed his conflicting relations with the Gold Coast government since the beginning of his investigation: he emphasised also the silence of the administration although several inquiries were ordered by the Colonial Office.¹⁶⁷ In early 1944, the Secretary of State for the Colonies, O. Stanley, received a confidential note from the Gold Coast Governor which stated that the absence of publication of the report was explained by the refusal of the author to make corrections:

*'I would like to stress that I am by no means complacent about the situation which the Purcell report reveals. The provision of adequate nutriment to the people of this country is, I am convinced, fundamental to success in all our progress and development plans... The problem of nutrition can only be tackled effectively on a long term basis... In the meantime such measures as are immediately practicable for the relief of distress will be taken'.*¹⁶⁸

Two reasons explained the strong willingness of the Governor to give credence to his commitment to implement effective corrective actions regarding malnutrition. On the one hand, the intense activity of S. Culwick as Nutrition Officer within the Colonial Office and the support given by a leading anthropologist in the field of nutrition, namely A. I. Richards.¹⁶⁹ As a member of

¹⁶⁵ Public Record Office, CO 859, 68/1 (1941-43), Research Survey (Nutrition), Gold Coast, Note by S. Culwick (5/11/1943).

¹⁶⁶ *Ibid.* Note by the Gold Coast D.M.S. (Director of Medical Services) J. W. P. Harkness (9/12/1941).

¹⁶⁷ *Ibid.*, Note of July 21st 1943, S. Culwick.

¹⁶⁸ Public Record Office, CO 859, 115/3 (1944-46), Gold Coast, Confidential Note by Sir A. Burns, Gold Coast Governor (16/2/1944).

¹⁶⁹ H. L. Moore and M. Vaughan, *Cutting Down Trees (Gender, Nutrition and Agricultural Change in the Northern Province of Zambia), 1890-1990* (London,

the Nutrition Committee, she commented on the lack of cooperation of medical, agriculture and education services with Dr. F. M. Purcell in spite of several recommendations sent by the Colonial Office, and she praised his achievements since he had to make his survey almost alone.¹⁷⁰ Then she expressed her judgement: '*It seems we cannot assume that the people on the spot will make the most sensible decision in a field as new as this*'.¹⁷¹ On the other hand, Purcell's decision to divulge his draft to the press caused a major embarrassment to the British authorities in the Gold Coast. After his resignation, the former Nutrition Officer made clear his motivation in a letter to the editor of *West Africa*, a copy of which has been found in the files of S. Culwick in the PRO.

*Apparently because it contained a few facts which might cause official embarrassment (unofficially it was explained to me that "no one may starve in the British Empire"), the report has been suppressed. It seems to me no less than my duty to make public the state of affairs, especially in view of complacent expressions of faith in the well-being of the Colonies. It is right that those who are sincere in their interest in the welfare of Colonial peoples should be confronted with unequivocal truth.*¹⁷²

Large extracts of the report were reprinted in various issues of *The West African Review* up to 1946, especially photographs of Northern Ghana in the dry season and comments on the effects of seasonal hunger.¹⁷³ Thus, nutrition

1994), Chapter 3. A comprehensive analysis of Richards' pioneer study on nutrition in Northern Zambia, carried out in the 1930s.

¹⁷⁰ Public Record Office, CO 859, 68/1 (1941-43), Research Survey (Nutrition), Gold Coast, Anonymous notes on Dr. F. M. Purcell's report with hand-written comments by A. I. Richards (17/9/1941).

¹⁷¹ *Ibid.* 2-3.

¹⁷² *Ibid.* Reference to *West Africa*, December 4th 1943, 'The Gold Coast Government, The Colonial Office and Nutrition: Facts of an Astonishing Colonial Episode', Letter to the Editor, by Dr. F. M. Purcell.

¹⁷³ *The West African Review*, 193, 14 (October, 1943), 'Economic Security before Political Development (A Timely Warning by an African Observer in Britain)', 16; *The West African Review*, 17 (March, 1946) 222, 'Colonies and Calories', 255-256;

became in the late 1930s and early 1940s a matter of policy and politics. Nevertheless, the blindness of the colonial administration must be carefully qualified. Although many initiatives tended to focus on the need for education regarding feeding habits and farming practices, all the more since the war made the quest for food self-sufficiency imperative,¹⁷⁴ there were two nutritional issues effectively addressed by the Gold Coast administration. These were the nutritional status and more generally social conditions of northern migrant labourers outside the Northern Territories, and the collection of health data by Medical Officers which were reported in the MDARs. Hendrickse convincingly emphasises the limitations of '*public enlightenment about dietary requirements*'¹⁷⁵ in order to reduce the high incidence of poverty, since it could hide '*the seriousness of the social and economic problems of the people of Africa*'.¹⁷⁶ To a certain extent, the persistence of prejudices regarding Africans in the late colonial period explains the difficulties encountered by early nutrition experts. For instance, Cardinall gives a vivid flavour of the perception of some British officers with respect to food habits in the Northern Territories.¹⁷⁷ In other words, *vis-à-vis* Africans, nineteenth century European analysis of sanitation and hygiene of labourers was transferred in the colonial territories with a cultural and racial hint.

A few temporary measures of food relief in the most destitute areas of Northern Ghana¹⁷⁸ were modest compared with the attention paid to

The West African Review, 17 (June, 1946) 225, 'Nutrition in West Africa (A Challenge', by the Medical Correspondent (D. F. M.), 618-619.

¹⁷⁴ *The West African Review*, 11 (August, 1940) 155, 'Your Food in War-Time (Every House Must Have a Vegetable Garden)', by Dr. A. Connal, Formerly Director of Laboratory Service, Nigeria, 55-56.

¹⁷⁵ R. G. Hendrickse, 'Some Observations on the Social Background to Malnutrition in *Africa Affairs*, 65 (1966) 261, 346.

¹⁷⁶ *Ibid.* 349.

¹⁷⁷ Cardinall, *The Natives of the Northern Territories of the Gold Coast*, 82-83.

¹⁷⁸ Public Record Office, CO 859, 115/3 (1944-46), Gold Coast, Note to the Colonial Secretary in Accra by G. H. Gibbs, Chief Commissioner of the Northern Territories (2/2/1944).

socioeconomic hardship suffered by northern migrants. It is beyond the scope of the present paper to make full justice to this important question, all the more since I focus on nutritional status and economic destitution within the Northern Territories, but the *MDARs* display very rich evidence of the following fact: migrant labourers were in occupations sensitive to the vagaries of economic cycles. Their capacity to maintain nutrition and food adequacy was undermined by 'conjunctural' poverty, while for some of them this temporary scarcity could degenerate into genuine destitution.¹⁷⁹ For instance, the establishment of refuges in the main towns such as Kumasi in 1929 and Tamale in 1933 is evidence of the risks of destitution faced by migrants: in these refuges, they were fed, deloused and housed until they were in full command of their potential labour power.¹⁸⁰ Statistical coverage of urban areas shows some destitutes died by starvation and thirst either within towns or along the northward roads.¹⁸¹

The *MDARs* are the only primary source to offer a comprehensive assessment of the incidence and magnitude of nutritional deficiencies throughout the period 1929-1955. They are still unpublished and as such deserve careful scrutiny.¹⁸² Moreover, they were the chief information at the disposal of British colonial officers and they shaped their perception and analysis of nutrition issues. Even if these officers were aware of the defective coverage of collected

¹⁷⁹ The series of *MDARs* from 1929 to 1955 is extremely interesting on this matter and it gives evidence of the key social role played by Medical Officers in tracing poverty through their daily activities and their collection of data. The historian of poverty in the Gold Coast and Ghana finds here a vital primary source.

¹⁸⁰ *MDAR* (1929-30), Part III (Hygiene and Sanitation), Section IV (Labour Conditions), and *MDAR* (1933-34), Part III (Hygiene and Sanitation), Section IV (Labour Conditions).

¹⁸¹ Various *MDARs* document these extreme forms of destitution.

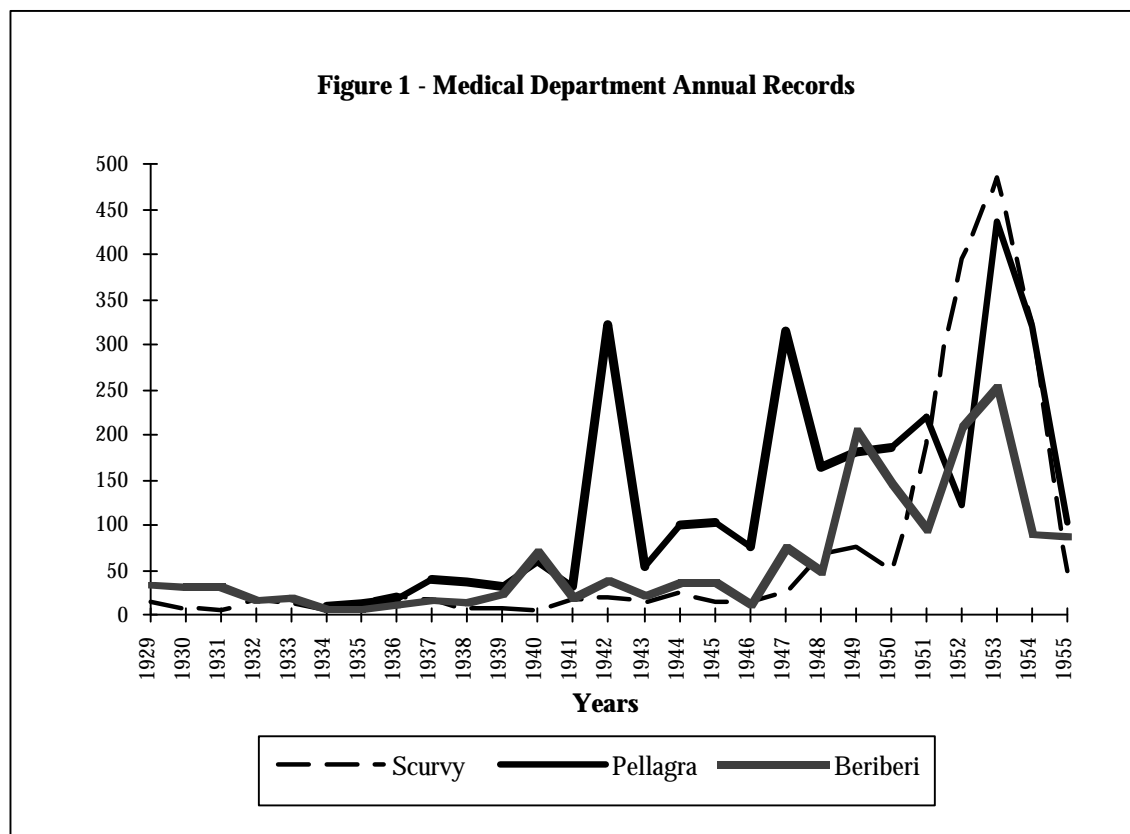
¹⁸² Since I wrote this paper in 1997, the publication of the book by S. Addae, *History of Western Medicine in Ghana 1880-1960* (Durham, U.K., 1997) has made public in a comprehensive way the content of *MDARs*. Nevertheless nutritional data are not presented in Addae's study.

statistics,¹⁸³ they implemented measures and policies regarding food and nutrition on the basis of this incomplete set of data. The main flaw of the *MDARs* is the absence of disaggregated figures that would permit a focus on Northern Ghana and a comparison with other regions of the Gold Coast. Nevertheless, the *MDARs* provide some demographic (e.g. infant mortality) indicators and reports on labour conditions which document the particular vulnerability of northern peoples to nutritional deficiencies. Thus, they confirm evidence described and analysed in the present paper. With regard to secondary sources, Patterson¹⁸⁴ does not consider data on nutritional deficiencies although he builds forty-one statistical tables to support his investigation of the Ghanaian health pattern since 1900. This neglect and the poor quality of statistical records are two further reasons to characterise nutritional deficiencies as 'hidden violence'.

The following lines and figures should be read in conjunction with the appendix.

¹⁸³ *MDAR* (1944), Part II (Important Diseases Treated), 4-5.

¹⁸⁴ Patterson, *Health in Colonial Ghana*, Tables.

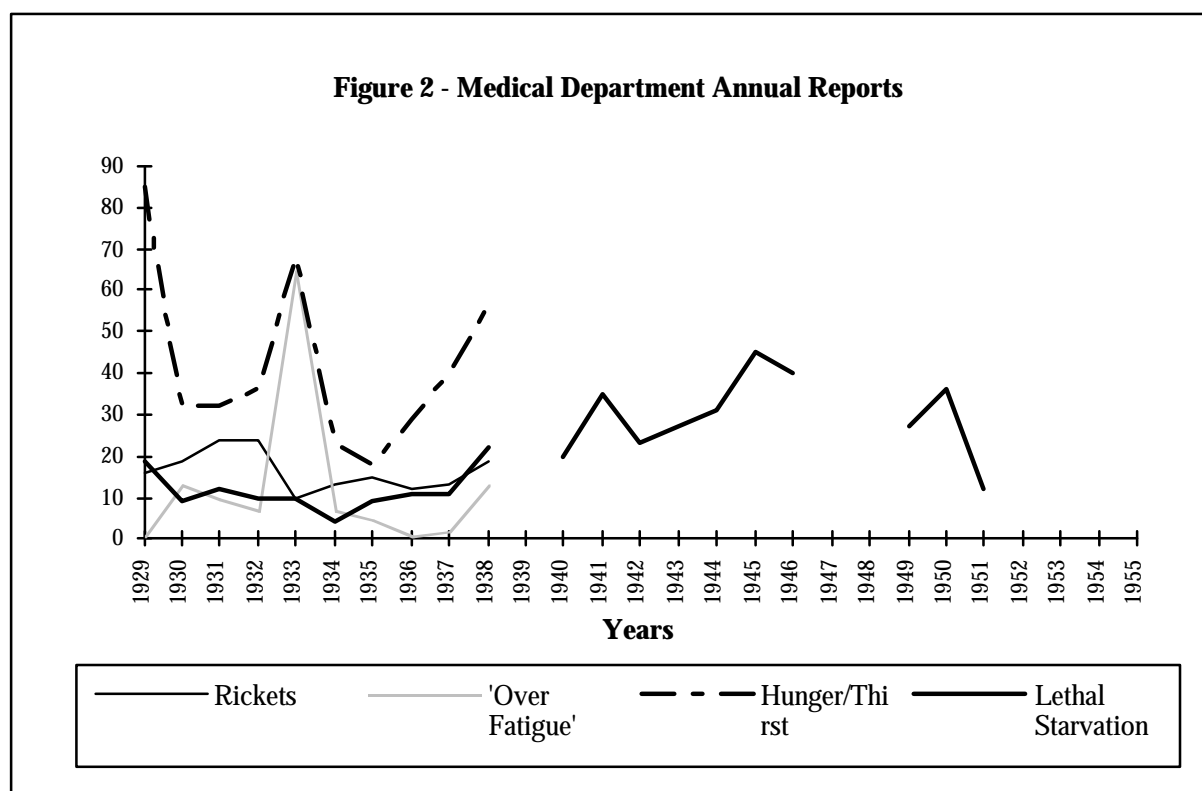


The *MDARs* are the only primary source to offer a comprehensive assessment of the incidence and magnitude of nutritional deficiencies throughout the period 1929-1955. They are still unpublished and as such deserve careful scrutiny.¹⁸⁵ Moreover, they were the chief information at the disposal of British colonial officers and they shaped their perception and analysis of nutrition issues. Even if these officers were aware of the defective coverage of collected statistics,¹⁸⁶ they implemented measures and policies regarding food and nutrition on the basis of this incomplete set of data. The main flaw of the *MDARs* is the absence of disaggregated figures that would permit a focus on Northern Ghana and a comparison with other regions of the Gold Coast. Nevertheless, the *MDARs* provide some demographic (e.g. infant mortality)

¹⁸⁵ Since I wrote this paper in 1997, the publication of the book by S. Addae, *History of Western Medicine in Ghana 1880-1960* (Durham, U.K., 1997) has made public in a comprehensive way the content of *MDARs*. Nevertheless nutritional data are not presented in Addae's study.

¹⁸⁶ *MDAR* (1944), Part II (Important Diseases Treated), 4-5.

indicators and reports on labour conditions which document the particular vulnerability of northern peoples to nutritional deficiencies. Thus, they confirm evidence described and analysed in the present paper. With regard to secondary sources, Patterson¹⁸⁷ does not consider data on nutritional deficiencies although he builds forty-one statistical tables to support his investigation of the Ghanaian health pattern since 1900. This neglect and the poor quality of statistical records are two further reasons to characterise nutritional deficiencies as 'hidden violence'.



The recorded incidence of nutritional deficiencies captured in the *MDARs* should be considered as a proxy for the real incidence. The striking feature of *MDARs'* figures is their low level. Two factors may explain it: on the one hand, a defective statistical coverage that was observable especially in rural areas (e.g. deaths were registered only in the case of in-patients); on the other hand,

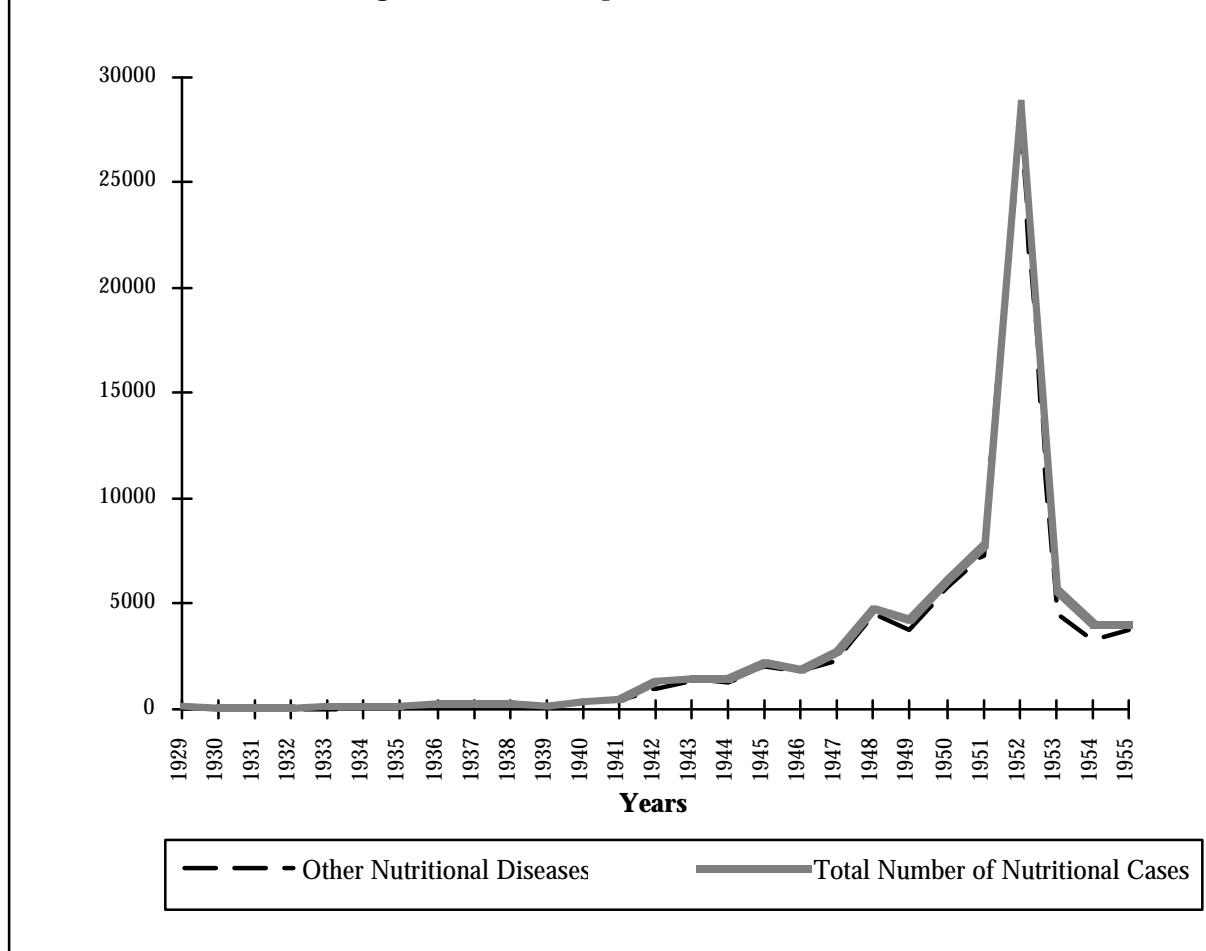
¹⁸⁷ Patterson, *Health in Colonial Ghana*, Tables.

difficulties surrounding the diagnosis of nutritional deficiencies and diseases. The fact that several changes were made in the classification of nutritional impairments is significant of the initial difficulties to collect data on recently discovered diseases. For instance, Kwashiorkor, a severe nutrition disease, was identified and discovered only in 1932, by Dr. C. D. Williams, in Accra.¹⁸⁸ Moreover, there are various degrees in nutritional impairments that range from minor deficiencies to lethal starvation and only the latter were certainly treated by medical officers. A person suffering from chronic malnourishment is liable to survive without necessarily experiencing clinical symptoms: thus, statistical records were biased toward the worst nutritional deficiencies afflicting only a minority. Dasgupta and Ray give evidence of the ability to adjust to poor nourishment with a subsequent lowering of working capacity and well-being in general.¹⁸⁹

¹⁸⁸ *MDAR* (1931-32), Appendices, Health Branches (E), 'Deficiency Disease in Infants', Report by Miss. C. D. Williams, Women Medical Officer, Princess Marie Louise Hospital, Accra, 93-99.

¹⁸⁹ P. Dasgupta and D. Ray, 'Adapting to Undernourishment: The Biological Evidence and its Implications', in J. Drèze and A. K. Sen (eds.), *The Political Economy of Hunger*, vol. I (Entitlement and Well-Being) (Oxford, 1990), 191-246.

Figure 3 - Medical Department Annual Records



The incidence of nutritional deficiencies can be traced by examining that of certain diseases usually associated with an inadequate nutritional status. Rotberg and Rabb¹⁹⁰ suggest a definite nutritional influence on the potential impact of tuberculosis, most respiratory infections, most internal parasites, and leprosy for instance. Interestingly enough, the *MDARs* give evidence that after malaria and yaws, diseases of respiratory systems were the third most important cause of diseases among children treated in the Child Welfare Centres (e.g. close to 10 per cent in 1937).¹⁹¹ Besides, the highest urban death-rates were recorded in mining towns such as Prestea (70.3/1,000),

¹⁹⁰ Rotberg and Rabb, *Hunger and History*, 307-308.

Sunyani (43.0/1,000) and Tarkwa (63.7/1000) whose labour force was mostly supplied by northern migrant labourers.¹⁹² The 1945 *MDAR* documents the close relationship between undernourishment and the low resistance to tuberculosis among these labourers.¹⁹³

According to the various Figures, especially Figure 3, the Second World War was a watershed. Food deprivation and lower nutritional status during the war could lead to a higher incidence within the same generation of people and across generations (e.g. infants born between 1939 and 1945). Cases of pellagra (Figure 1) and those dead by starvation (Figure 2) showed a higher recorded incidence. While the close relationship between pellagra and the consumption of polished rice¹⁹⁴ and milled maize might explain pellagra's higher incidence, the fiercer impact of starvation is more difficult to interpret. A well-informed Nutrition Officer such as S. Culwick gave information on worse hardship for people living in Northern Ghana.¹⁹⁵ It is certain that the most destitute areas could not see their situation improving because of shortages of colonial staff and higher food prices. Since *MDAR* data were mainly collected in urban areas, it is reasonable to suggest that starvation might have hit more significantly in some rural northern areas.

These comments show that by resorting to various indicators closely correlated with inadequate nutrition, the historian is able to capture the presence of nutritional deficiencies without the insight of optimal data. For instance, Figure 2 is a good example of the absence of continuous records. An

¹⁹¹ *MDAR* (1937), Return (F), Analysis of More Important Conditions Dealt with in the Out-Patients Department Centres of the Child Welfare Centres during 1937, 78.

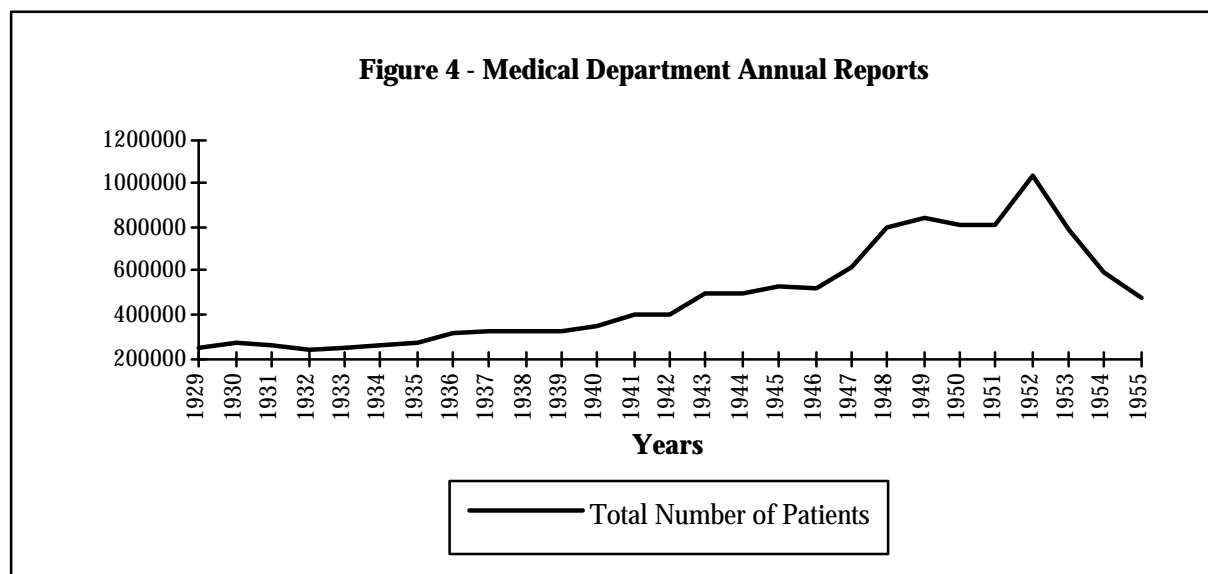
¹⁹² *MDAR* (1934), Part I (Public Health), Section VI (Vital Statistics of Thirty Registration Districts), Table XX, population and Rates of Registration Districts, 12.

¹⁹³ *MDAR* (1945), Part I (Public Health), Section II (Important Diseases Treated), 7-8.

¹⁹⁴ Public Record Office, CO 859, 14/16 (1939-40), Rice.

¹⁹⁵ Public Record Office, CO 859, 68/9 (1943-44), West Africa, Gold Coast, Note by S. Culwick (3/3/1944), and 115/3 (1944-46), Gold Coast, Note by S. Culwick, (12/12/1944).

important question is whether the higher incidence of malnutrition recorded by the *MDARs* was a mere consequence of better statistical coverage (e.g. such as illustrated in Figure 4 for the total number of patients) or reflected a genuine increasing incidence. This trend is observable in Figure 3 (i.e. the 1940s were clearly a threshold), but except for beriberi (Figure 1) that reached a higher incidence in the second half of the 1940s, it is less clear for other specific diseases.



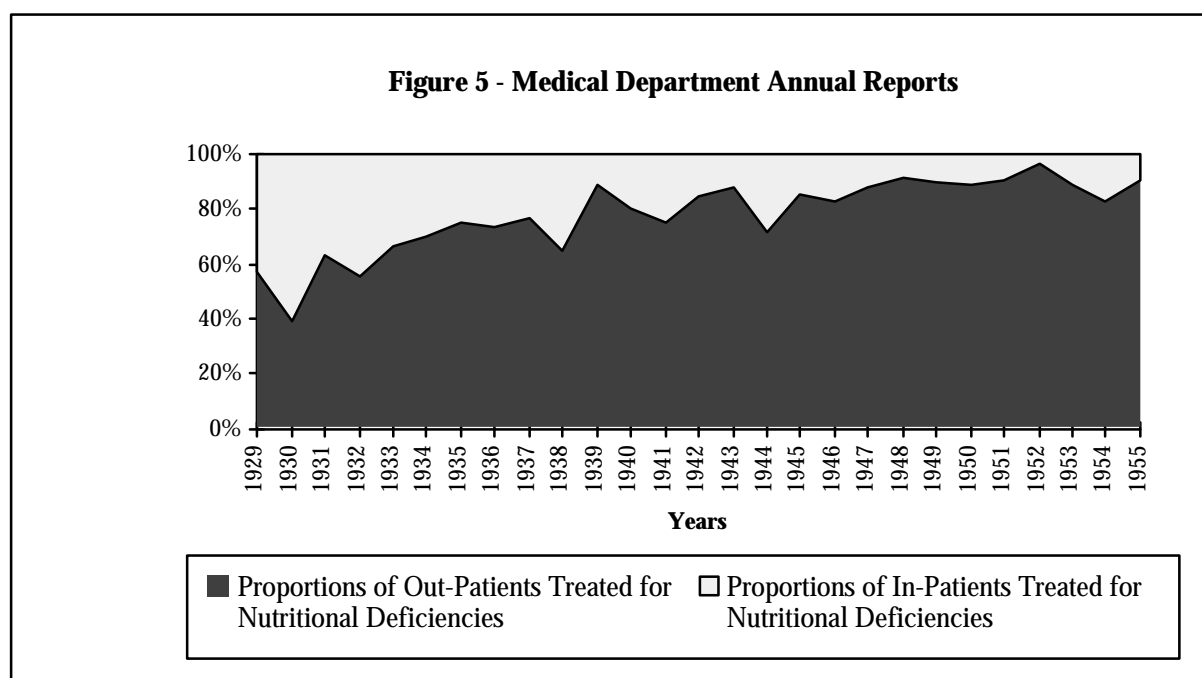


Figure 5 shows that the higher relative proportion of out-patients could have played a decisive role in explaining the growing recorded incidence of nutritional diseases: according to Column K (see Appendix, Table II), a majority of poorly nourished patients were out-patients throughout the period. An enhanced awareness among medical officers and a better knowledge among local peoples of the possibility of curing nutritional diseases could improve the accuracy of medical reports. Simultaneously, certain groups could experience a higher vulnerability to food-related deficiencies. It is extremely difficult with available primary sources to differentiate between these two phenomena. Nevertheless, qualitative evidence suggest the higher exposure of some socioeconomic groups to malnutrition and economic destitution.

Seasonal hunger among northern farmers and undernourishment among northern migrant labourers were significant in the daily life of these Africans. They exhibited a strong vulnerability to social diseases emblematic of destitution and embedded in inadequate nutritional status. Thus, their experience was not necessarily that captured in the patterns documented by *MDAR* data. The latter provide a precious benchmark, but the present

historical inquiry documents Northern Ghana's situation as relatively worse than that suggested by the aggregate picture.

The interesting point raised by the Gold Coast *MDARs* pertains to the role of colonial policies: before considering their efficiency in tackling malnourishment,¹⁹⁶ it appears that their primary effect was to generate better knowledge of the incidence and magnitude of poor nourishment.

CONCLUSION

The present historical exploration gives credence to the two important ideas suggested by the preliminary quotations from Lawrence Durrell and al-Hajj 'Umar. On the one hand, by following Durrell's advice to disregard the would-be indifference of history, my attempt to listen to the latter has been fruitful since the various primary sources examined show how rich and complex were the relationships between nutritional status and economic destitution in Northern Ghana (1930-1957). On the other hand, the poem written by al-Hajj 'Umar gives a flavour of the usefulness for the historian of poverty in Sub-Saharan Africa of an investigation of nutrition: undernourishment and poor foodstuffs were vivid signs of destitution and they shaped significantly the perception of poverty.

Throughout the period under scrutiny, nutrition emerged as a critical issue for policy-makers in the Gold Coast. Focusing on this question has brought two

¹⁹⁶ E. Hansen, 'Public Policy and the Food Question in Ghana', in N. Bourenane and T. Mkandawire (eds.), *The State and Agriculture in Africa* (London, 1987), 26-58, and 'National Food Policies and Organisations in Ghana', *Africa Development*, 6 (1981) 3, 99-115; H. Tabatabai, 'Agricultural Decline and Access to Food in Ghana', *International Labour Review*, 127 (1988) 6, 703-734. This series of secondary sources

results. First, Iliffe's distinction between 'conjunctural' and 'structural' poverty is interesting since it has allowed us to capture the diversity of experiences in Northern Ghana regarding the interplay between nutritional status and economic destitution. Second, there was not a unique sense of causation between food-related deficiencies and poverty, all the more since recorded evidence of increasing incidence of dietary impairments could result merely from better statistical coverage and more widespread knowledge about nutrition. Unpublished quantitative data are presented and analysed, and new insight has been gained on the politics of nutrition surveys in the late 1930s and early 1940s. Furthermore, my focus on the biological roots of poverty and destitution sheds an original light on the debate about the causes of Northern Ghana's relative underdevelopment: the supply of labour and food *per se* have not been as critical as the inappropriateness of public policies. In order to give more historical flesh to the economic approach to destitution, further research is needed. In such well-ploughed territory as unequal economic and social development between Northern and Southern Ghana, an economic history lens focusing on poverty is a promising line of research.

The voice of the poor is scarcely listened to and recorded in history. That of the African poor in Northern Ghana was selectively considered in the late colonial period: northern migrant labourers captured more attention than their northern countrymen struggling to secure a living in destitute areas. Recent controversies in Ghana on the persistent socioeconomic backlogs suffered by northern peoples, who are still more vulnerable to destitution than southerners, are evidence that the advent of independence in 1957 did not close the period of 'hidden violence'.

gives an interesting account of the dismal legacy of British rule regarding malnutrition in Ghana, especially in the northern savanna.

INCIDENCE OF NUTRITION DEFICIENCIES IN THE GOLD COAST (1929-1955)

I

Years	Scurvy A	Pellagra B	Beriberi C	Rickets D	'Over Fatigue' E	Hunger or Thirst F	Lethal Starvation G	Other Nutritional Diseases H
1929	14		34	16	1	85	19	
1930	9		32	19	13	32	9	
1931	5		31	24	10	32	12	40
1932	18		18	24	7	36	10	23
1933	13		20	10	65	68	10	31
1934	6	10	9	13	7	23	4	107
1935	13	13	8	15	5	18	9	131
1936	23	17	12	12	1	29	11	198
1937	18	39	17	13	2	40	11	173
1938	8	37	15	19	13	57	22	170
1939	8	32	24					170
1940	5	60	71				20	295
1941	17	31	20				35	422
1942	20	322	40				23	1,001
1943	14	54	22				27	1,347
1944	25	100	38				31	1,326
1945	14	103	38				45	2,064
1946	15	75	12				40	1,845
1947	26	315	76					2,325
1948	67	164	49					4,542
1949	77	181	205				27	3,795
1950	49	187	148				36	5,780
1951	190	219	96				12	7,313
1952	396	122	210					28,113
1953	485	438	253					4,549
1954	324	320	91					3,341
1955	50	104	89					3,805
Years	Scurvy	Pellagra	Beriberi	Rickets	'Over Fatigue'	Hunger or Thirst	Lethal Starvation	Other Nutritional Diseases

Source: MDAR (1929-1955) and author's calculations.

INCIDENCE OF NUTRITION DEFICIENCIES IN THE GOLD COAST (1929-1955)

II

TOTAL I	Out-Patients (OP) Only J	Share of OP (%) K	Total Cases Treated L	Share of OP (%) M	Share of Nutritional Deficiencies (%) N	Years
169	97	57.40	249126	93	0.07	1929
114	45	39.47	270785	93	0.04	1930
154	97	62.99	259067	93	0.06	1931
136	75	55.15	240056	91	0.06	1932
217	145	66.82	250827	91	0.09	1933
179	125	69.83	255802	91	0.07	1934
212	160	75.47	273206	91	0.08	1935
303	224	73.93	311211	91	0.10	1936
313	241	77.00	330092	91	0.09	1937
341	222	65.10	323990	91	0.11	1938
234	209	89.32	322453	91	0.07	1939
451	362	80.27	342593	92	0.13	1940
525	397	75.62	395536	92	0.13	1941
1,406	1,189	84.57	401361	92	0.35	1942
1,464	1,294	88.39	494455	93	0.30	1943
1,520	1,095	72.04	500108	93	0.30	1944
2,264	1,930	85.25	531069	93	0.43	1945
1,987	1,640	82.54	513699	92	0.39	1946
2,742	2,416	88.11	613763	93	0.45	1947
4,822	4,411	91.48	796379	92	0.61	1948
4,285	3,862	90.13	836991	93	0.51	1949
6,200	5,499	88.69	807997	92	0.77	1950
7,830	7,099	90.66	807440	91	0.97	1951
28,841	27,978	97.01	1038787	94	2.78	1952
5,725	5,104	89.15	791018	92	0.72	1953
4,076	3,368	82.63	598603	88	0.68	1954
4,048	3,656	90.32	479045	88	0.85	1955

Total	Out-Patients (OP) Only	Share of OP (%)	Total Cases Treated	Share of OP (%)	Share of Nutritional Deficiencies (%)	Years
-------	------------------------	-----------------	---------------------	-----------------	---------------------------------------	-------

Source: *MDAR* (1929-1955) and author's calculations.

KEY

* Regarding each year for which no figure is available, it is consistent to assume a divergence between recorded cases and the real incidence of any disease/deficiency considered. Even if some graphs eventually give a discontinuous picture, it is sensible since assuming '0' cases would be misleading.

** The present key has been documented by reading M. C. Latham, *Human Nutrition in Tropical Africa* (Roma, 1979).

(A) Scurvy: a serious disease resulting from a severe deficiency of Vitamin C, usually rare in Africa. It is evidence of a diet deprived of fresh food for a long time. MDAR figures included Barlow's disease, namely infantile scurvy that occurs when infants are fed with low quality milk. Tiredness and weakness, delayed healing of wounds, and anaemia are among the main symptoms.

(B) Pellagra: a common disease in regions of sub-Saharan Africa where maize is the staple diet. People eating millet or sorghum are immune and it was only with the arrival of maize and cassava in seventeenth-century Africa (e.g. in the Gold Coast) that pellagra was introduced. Weakness, underweight, dermatitis, diarrhoea and dementia are among the main symptoms. Compared to persons afflicted by scurvy, those afflicted by pellagra show clear signs of poor nourishment.

(C) Beriberi: a rare disease in Africa. It occurs chiefly among rice eaters and it is due to a deficiency of B vitamins. For instance, African troops fed on a rice diet were prone to be afflicted by beriberi. Nevertheless, the milling of maize in Africa seems to have had a similar effect to that of rice in Asia: cheap costs of producing polished rice have been associated with a growing incidence. Two types of beriberi are observable: wet beriberi and dry beriberi. Pitting oedema is the chief symptom of the former, while thin constitution, wasted muscles and a decreasing capacity for walking characterise the latter. Regarding infants, those fed with milk deficient in B vitamins are exposed even if their mothers do not exhibit symptoms of beriberi.

(D) Rickets: a disease of infants and young children that is explained by impaired calcium absorption due to a deficiency in vitamin D. Animal foodstuffs and sunlight are vitamin D sources. Overclothed children such as observed among Yoruba are rickets-prone. The main symptoms are bone deformations.

(E) 'Over Fatigue': these few figures are interesting since they capture a poor physical condition that can be associated with poor nourishment. It is worth noting that a significant number of patients died according to MDAR records.

(F) Hunger and Thirst: these few figures are relevant proxies for economic and social destitution. Nevertheless, they are emblematic of the difficulties in interpreting MDAR data since cases of death are distinguished from those classified as 'lethal starvation'.

(G) Lethal Starvation: the gap in the series should not lead us to overlook the fact that the Second World War was clearly a period of higher recorded incidence of starvation and nutritional deficiencies in particular. It is a matter well documented in the primary sources. Besides, one must bear in mind that *MDAR* records take only deaths at hospitals into account. For instance, the number of starved northern migrants along migration roads was unknown although their presence was emphasised by medical officers.

(H) Other Nutritional Diseases: these figures result from combining successive different classifications (from 1932 to 1939, Avitaminosis; from 1939 to 1953, Nutritional diseases; from 1953 to 1955, Other Deficiency states). The very vagueness of this classification is emblematic of uncertainties surrounding the diagnosis of nutritional deficiencies/diseases by medical officers. However, the fact that the majority of patients suffering from poor nourishment was reported in this column provides a clear indicator of the widespread incidence of nutritional impairments.

(I) Total: these figures were obtained by adding (A)+(B)+(C)+(D)+(E)+(F)+(G)+(H).

(J) Out-Patients (OP) only: these patients were distinguished from in-patients who stayed in hospitals. This distinction had two consequences: on the hand, an under-estimation of death rates since only persons who died in hospitals were recorded and figures provided by rural dispensaries were scanty; on the other hand, these out-patients exhibited signs and symptoms of nutritional deficiencies that did not require clinical treatment and it is evidence of the widespread incidence of chronic poor nourishment. Even if people's nutritional status was inadequate, undermining their working capacity, it was not defective enough to justify medical treatment in hospitals. All the more so since the number of beds available were limited: thus only severe malnourishment led to hospitalisation.

(K) Share of OP (percentage): these figures show that throughout the period the vast majority of patients suffering from poor nourishment were out-patients.

(L) Total Cases treated: these figures were obtained by adding in-patients and out-patients irrespective of their diseases.

(M) Share of OP (percentage): these figures confirm that out-patients were the majority of patients irrespective of their diseases.

(N) Share of Nutritional Deficiencies (percentage): these figures show that nutritional deficiencies were a minor share of diseases treated by medical officers, at least such as recorded in *MDAR*. The very low level of these percentages sheds a problematic light on the reliability of these statistics. They did not give evidence of the true incidence and magnitude of nutritional diseases, all the more since malnourished people could survive without being afflicted by deficiencies/impairments requiring medical treatment.

APPENDIX