

# THE IMPACT OF SUGAR CANE EXPANSION ON FIVE CONTINENTS

TAMÁS SZMRECSÁNYI

UNICAMP, Universidade Estadual de Campinas  
(São Paulo, Brazil)

THE THEME OF THIS PANEL and of most papers presented to it pertains to an already quite extended historiographic tradition, which goes back at least to the end of the nineteenth century, when Edmund O. Von Lippmann (1857-1940) published the first edition of his monumental *History of Sugar*.<sup>1</sup> Still before the First World War his work was followed by H.C. Prinsen Geerlig's book on *The World's Cane Sugar Industry: Past and Present* (Manchester: Norman Rodger, 1912). With the exception of Von Lippman's book reedition and the publication of a supplement to that of Prinsen Geerlig,<sup>2</sup> nothing else seems to have happened during and between the two World Wars, and it was only after the end of the Second that appeared Noel Deerr's *History of Sugar* in two volumes (London: Chapman & Hall, 1949 and 1950). Among these pioneering works, we may still include a newer synthesis on the matter, published in Germany during the second half of the 1960s by Jakob Baxa and Guntwin Bruhns.<sup>3</sup>

Nonetheless it was mainly from the mid-1980s that our field of study really took off. This happened on the one hand through the issue of a seminal book by Sydney Mintz,<sup>4</sup> and on the other around the formation in Britain of the so-called Norwich Group under the leadership of Bill Albert and Adrian Graves, then working respectively at the History Departments of the Universities of East Anglia and Edinburgh. These two specialists not only convened three very successful international gatherings on the subject—the first one in Edinburgh in 1982, and the other two in Norwich, in 1986 and 1990—duly publishing most of the papers presented therein,<sup>5</sup> but also gave origin to a newsletter (to which all of us are or should be associated), the World Sugar History Newsletter, whose first issue came out in 1982, and which

<sup>1</sup> According to the Author, this occurred in 1890. The second edition of his book, entitled *Geschichte des Zuckers seit der ältesten Zeiten bis zur Beginn der Röhrenzucker Fabrikation: ein Beitrag zur Kulturgeschichte*, with 824 pages, came out in Berlin in 1929. At the library of our university in Campinas (Brazil), we only have a copy of this edition, which was later translated to Portuguese in 1941-1942, shortly after Von Lippmann's death.

<sup>2</sup> P. GEERLING, *Cane Sugar Production, 1912-1937...*

<sup>3</sup> J. BAXA and G. BRUHNS, *Zucker im Leben der Völker...*, a volume dedicated to the memory of Von Lippmann.

<sup>4</sup> S.W. MINTZ, *Sweetness and Power...*

<sup>5</sup> This was particularly the case of the first two groups of papers, collected in the books *Crisis and Change in the International Sugar Economy, 1860-1914*, and *The World Sugar Economy in War and Depression, 1914-40*. Unfortunately, the same could not be done with the papers of the third conference, on *The International Sugar Economy in the Post-War World: 1945-1990*, several of which have remained unpublished.

is still circulating.<sup>6</sup> Within this new and present day international historiography we may also include, among others, the books by J.H. Galloway<sup>7</sup> and by Manuel Martín and Antonio Malpica,<sup>8</sup> as well as the collections of essays edited by Roger Munting and myself,<sup>9</sup> and by Alberto Vieira.<sup>10</sup>

Having completed this short and superficial historical retrospect of our session, let us turn to the analysis and discussion of the eight papers which were presented to the panel and are listed below in alphabetical order of their main authors' names:

- Daniel CAMPI and Patricia JUÁREZ-DAPPE, “Argentina y Perú: Semejanzas y contrastes de modelos azucareros, 1880-1945,” preliminary draft, 21 pages;
- Horacio CRESPO, “Las modificaciones estructurales de la agroindustria azucarera mexicana y el Tratado de Libre Comercio de América del Norte,” preliminary draft, 22 pages;
- J.H. GALLOWAY, “The Modernization of Sugar Production in Southeast Asia, 1880-1940,” preliminary draft, 31 pages plus illustrations;
- Peter GRIGGS, “Environmental Change in the Sugar Cane Producing Lands of Eastern Australia, 1865-1990,” definite version, 23 pages;
- R.A. HAWKINS, “The Impact of Sugar Cane Cultivation on the Economy and Society of Hawaii, 1835-1900,” preliminary draft, 20 pages;
- Barry HIGMAN, “Slavery, Plantations and Landscape on the Caribbean Sugar Islands,” definite version, 13 pages;
- David LINCOLN, “The Historical Geography of the Southern African Development Community’s Sugar Protocol,” preliminary draft, 11 pages; and
- Pedro RAMOS and Araken ALVES DE LIMA, “A influência da agroindústria canavieira do Brasil na persistência das desigualdades sociais e das técnicas de produção extensivas e predatórias,” definite version, 27 pages.

These papers can be classified and assessed according to at least two different criteria: first by confronting those which deal with very long and heterogeneous time-spans and those which are based upon shorter and better definable periods; and second, by comparing those dealing essentially with the various impacts of sugar cane cultivation and industrial transformation, and those more concerned with their developments through time than with their impacts proper. The latter, which constitute the subject of this panel, may be subdivided into social or socio-economic effects on the one hand, and physical or ecological and environmental effects on the other.

<sup>6</sup> The first eighteen issues (from November 1982 to June 1991) came out in Norwich under the editorship of Bill Albert. In December 1994, a new series began with issue number 19, under the editorship of Jock Galloway and Peter Blanchard. The most recent issue to come out was no. 34, of July 2004.

<sup>7</sup> J.H. GALLOWAY, *The Sugar Cane Industry...*

<sup>8</sup> M. MARTÍN and A. MALPICA, *El azúcar en el encuentro entre dos mundos*.

<sup>9</sup> R. MUNTING and T. SZMRECSÁNYI, *Competing for the Sugar Bowl*.

<sup>10</sup> A. VIEIRA, *História do açúcar. Rotas e mercados*.

History as a human and social science is less concerned with the study of past times per se than with the structural transformations of human societies and institutions through time. Social transformations and their effects encompass both changes and permanence, the latter always being unavoidably accompanied by ageing, while the structures can be best defined as sets of relationships. Time, of course, constitutes the crucial element of History and, therefore, its dimensioning and characterization always require a precise delimitation for each case, generally translated into the preliminary setting up of a precise period to be analysed, and beyond which the generalizations and conclusions arrived at cease to be valid, and all new findings need to be duly qualified in order to avoid any anachronisms.

This first and essential care with periodization seems to have been overlooked by Pedro Ramos and Arakén Alves de Lima in their paper about Brazil, which deals with no less than five centuries—from the mid-sixteenth to the beginning of the twenty first—and includes six different periods: a long Colonial one (from 1532 to 1822), a shorter Imperial one (from the last of these two years, which corresponds to Brazilian political emancipation, until the advent of our Republic in 1889), and three even shorter ones (of three or four decades each) related to the present political regime. During such a long time, the occurrence of numerous and important structural changes seem to be unavoidable, thus needing to be taken into account and to be conveniently explained. These explanations, to be sure, do occur in the Authors' paper, but the efforts put in them could perhaps have been better used at the in-depth analysis of one or two shorter periods.

Barry Higman's paper on the Caribbean deals with a shorter and more homogeneous period of "only" two centuries, from the 1640s to the 1830s, related to the times when those islands were all European sugar colonies worked by slaves of African origin. This paper, which at the end of its period abstracts the Haitian revolt, can best be read with the Author's excellent review-article on "The Sugar Revolution."<sup>11</sup> Both however, and specially the paper, are almost exclusively based upon English language sources and literature, and such a limitation unfortunately caused them to ignore some early and important contributions on the matter by a renowned Brazilian scholar, the late Professor Alice Piffer Canabrava.<sup>12</sup> Some of these have been taken into account in a book by Dale Tomich,<sup>13</sup> not mentioned either among Higman's bibliographical sources. But these omissions are only minor problems and don't reduce in any way the value and quality of his contribution, to which we shall be returning in a moment.

The paper by Peter Griggs, related to Easterh Australia, also encompasses more than one century, covering 125 years, from 1865 to 1990. But the Author himself,

<sup>11</sup> This article was published in the *Economic History Review*, 53, 2 (May 2000), p.213-36.

<sup>12</sup> A.P. CANABRAVA, *A indústria do açúcar...*, originally presented in 1946 as a post-doctoral thesis, with which she obtained the title of *Livre Docente* in History. See also her stimulating article "A influência do Brasil na técnica do fabrico de açúcar..." , p.63-76.

<sup>13</sup> D. TOMICH, *Slavery in the Circuit of Sugar...*

already at the beginning subdivided them into three periods, namely: the last decades of the nineteenth century, the first of the twentieth (between 1895 and 1939), and the four decades following the end of the Second World War. Despite of this, only the last one does distinctly emerge in the four substantive parts of his very interesting account of the environmental impacts of the sugar cane economy's expansion within the region under analysis, the coastal areas of Queensland below Mossman and of New South Wales above Grafton. The analysis of its contents is also following soon.

All the other five papers stick to shorter, more homogeneous and better definable periods. That of Richard Hawkins deals with the formation of the Hawaiian sugar industry and its political and socio-economic consequences during the last two thirds of the nineteenth century. Jock Galloway focused his on the colonial modernization of cane sugar production which took place in Southeast Asia between 1880 and 1940. Daniel Campi and Patricia Juárez-Dappe compare the development processes of the sugarcane economies of Argentina and Peru from the beginning of the 1880s to the end of the Second World War. Although providing a longer historical retrospect, Horacio Crespo analyses the evolution of the Mexican sugar industry since the early 1980s, and more specifically after the establishment of NAFTA—the North American Free Trade Agreement between his country, the United States and Canada. And David Lincoln examines the geographical context and the historical background of the Southern African Development Community's sugar protocol signed in 2000.

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Besides dealing with quite different subjects and periods, these eight papers also reveal diverse approaches and concerns. Most of them are concentrated on the sugar industry's development, only allowing marginal considerations to its socioeconomic and environmental impacts. Actually only three of them are specifically focused on the latter: those of Barry Higman, Richard Hawkins and Peter Griggs.

Barry Higman provides us a rich description of the landscapes created in the Caribbean by the “sugar, slavery and plantation triad” during the seventeenth and the eighteenth centuries. These landscapes were structured around large scale and more or less monocultural production units, with or without resident owners, always duly adapted to their physical environment, mainly defined by two variables: (a) the topography and quality of the soil, and (b) the access to and the availability of water. While the former variable determined the location and the size of the cane plantation, the latter was fundamental not only for the location of the sugar mill and for the producers' dwellings, but also—and perhaps mainly—for the purpose of transportation of both the end product and of the imported consumption and production goods.

These productive units were never strictly monocultural, since they usually included, besides the cane plantations themselves, food crops for consumption on the

property by the slaves and their masters, grasslands to feed the livestock, and forests for both timber and firewood. Their scale was defined more by the number of slaves living on each of them (one to three hundred per plantation) than by the extension of their holdings (on average around thousand acres, or approximately 405 hectares each). Such features for sure were not too different from those prevailing in the sugar lands of colonial Brazil during the period analysed by Higman.

In our country as well, “enslavement was favoured by landowners... because it provided a stable labour force and enabled the extraction of more hours of work than could be obtained from any other form of labour organization” (p.3). In both cases “the plantation was the locus of exploitation and brutal treatment” (p.11), and the environment had been “dramatically changed,” with forests “laid flat and burned, replaced by a grass that encompassed the level lands in a smooth, homogeneous cover,” and with “sugar technologies affecting water systems and vegetation” (p.12). And neither did the end results seem to have varied in each of them, with populations growing and *per capita* sugar production decaying after Abolition (p.13).

Richard Hawkins’ paper is mainly concerned with the demographic and social effects of sugar industry’s expansion in Hawaii between 1835 and 1900. But before turning to these, it should be stated that his abstract is much more polemical and provocative than the paper itself. First because of its assertion that economic historians “have neglected the Hawaiian sugar history.” Besides being contradicted by the sources mentioned in several footnotes of his paper, this statement seems to ignore the works by Edward Beechert.<sup>14</sup> Next because it argues against the opinion that “the impact of the sugar industry on the indigenous native Hawaiians was mostly negative,” a posture denied by several parts of the paper. And last due to its defense of the point of view that “misgovernance by the traditional rulers of the native Hawaiian had a relatively more adverse affect on the native Hawaiian commoners than the growth of the sugar industry.”

The main conclusions arrived at by the paper are the following: (a) Hawaii’s population decline had been initiated before the advent of the sugar industry, already at the beginning of the nineteenth century; (b) the land reform (*Great Mahele*) of 1848 which preceded its development, “privatised a substantial proportion of the public domain mainly at the expense of the Hawaiian commoners” (p.2); (c) another condition of this development was the Master and Servants Act of 1850, which allowed Hawaiian (national and foreign) employers to enroll indentured labour “...often described as a system of slavery,” by which workers were recruited both within the country and from abroad—initially China (p.3), and later on from other Pacific islands, Europe and Japan (p.10-12); (d) with its first growth between 1857 and 1865, due in part to the American Civil War, Hawaiian sugar became a million dollar industry, and the loss of its profitability thereafter led to the proposal of the

<sup>14</sup> See for instance his “Labour Relations in the Hawaiian Sugar Industry, 1850-1937”, p.280-92, 369-71.

Reciprocity Treaty finally enacted in 1876 (p.6-7); (e) the increment of cane cultivation that this provoked was mainly horizontal: between 1870 and 1900 with its areas expanding more than twelvefold, against a 135% growth in sugar productivity (p.7-8), and this occurred mostly at the expense of native small farmers, being accompanied by a further demographic decline (p.8-9). Between 1878 and 1890, the number of native Hawaiians fell by 20%, from 47.5 to 40.6 thousand, while that of the non-Hawaiians rose by 375%, from 10.5 to 49.5 thousand; (f) but the main consequences of this change were socioeconomic: with the sugar plantations' labour force becoming predominantly non-Hawaiian, the natives of the islands turned peripheral to the economy of their own country (p.12). In 1893, while Americans owned nearly three quarters of the sugar industry, native Hawaiians owned less than 1% (p.15). Five years later, Hawaii formally became a part of the United States; (g) even being clear that the impact of the sugar industry on the native Hawaiian community was far from benign, the people of the islands were "as much, if not more, victims of poor governance from their own leaders" (p.19-20).

Peter Griggs takes for granted the socioeconomic changes entailed by sugar cane's expansion in Eastern Australia and prefers to concentrate his attention upon its environmental consequences. These included loss of forests, soil exhaustion and erosion, water stream pollution, wetlands disparition, and the introduction of exotic wildlife in the region. Deforestation has tended to be complete and intense during all the nineteenth and most part of the twentieth centuries. The original vegetation was initially removed by hand and then burned, with the first crops of sugar cane being planted amongst the ashes. After 1945, bulldozers and explosives replaced the former manual processes. Until 1950, deforestation occurred not only to open space for the cane fields, but also to provide firewood for the boilers of the sugar mills.

The process led to some unexpected (and unwanted) environmental consequences, such as the increasing frost incident in the cane fields of northern New South Wales, the erosion of riverbanks provoked by the loss of riparian vegetation and the consequent recurrence of floods along the main rivers. Industrial pollution generated by sugar mills has also been frequent until the 1960s, with the transformation of Eastern Australia's watercourses in dumping sites for mill waste products. This induced the Queensland government to introduce legislation requiring the sugar mills to obtain licenses prescribing the quantity and quality of liquid waste disposal.

Soil exhaustion, due to lack of care in cultivation and the absence of any fertilizer utilization, became apparent in some areas already by the 1880s. Soil erosion, caused by inappropriate locations and/or incorrect farming techniques, also began to appear at the end of the 1930s, still remaining as a major problem until the early 1990s, end of the period studied by the paper. On the whole, environmental concerns have been slow to appear in Eastern Australia, both at the industrial and at governmental levels, with the first changes in this regard only beginning to occur

since the 1960s and 1970s. This paper by Peter Griggs will probably become a landmark in that evolution.

The other five papers deal fundamentally with the cane sugar industry's development in some of its main producer countries and regions of the world, only paying marginal attention to its environmental and/or socioeconomic impacts. Even so, most of them have something of interest to say in this regard.

Thus the contribution of Pedro Ramos and Arakén Alves de Lima intends to demonstrate that the principles by which Portugal established Brazil's sugar industry in the sixteenth century determined its development up to our times. Their main objectives were, and still remain, the cheapening of the production costs of the *engenhos de açúcar*—that is of the sugar mills *cum* plantations, later renamed *usinas*—that continue to prevail in our country, and whose expansion has always been based upon land-extensive and itinerary cultivation, by definition essentially predatory of both natural and human resources.

The Authors show that some of these characteristics have only begun to change in relatively recent times. The main transformation, of course, was the legal abolition of slavery in 1888 (a measure which Brazil was the last country of the world to take). Correlatively, with the development and modernization of the economy which did take place since the end of the nineteenth century, sugar cane monoculture has become less conspicuous and pervasive in the country as a whole, although continuing to represent one of the main rural activities both of the backward Northeast, where its expansion had begun, and of some of the most advanced regions, in and around the state of São Paulo. Its basic trait of historical continuity, featured on the one hand by an extremely concentrated agrarian structure, and on the other by a vertically integrated production system, almost without any social division of labour between agriculture and manufacturing, has remained absolutely unchanged, with the *usinas* monopolizing not only the industrial processing of sugar and ethanol, but also and mainly their raw material cultivation and its underlying land ownership.

This system, controlled by a few hundred of families, has retained through time both the extensive character and the predatory nature of its activities. The former feature can be grasped through the increases of its production normally determined much more by the horizontal expansion of cultivated areas than by increases of their agricultural and/or industrial productivity, while the latter is easily perceptible at the environmental and human levels.

In the still few more advanced cane sugar producing areas and units, the introduction of mechanical harvesting, mostly concentrated in the state of São Paulo, there has been a sharp decline of agricultural employment, but working conditions of the labour force have improved considerably. Elsewhere nonetheless this has not occurred and, due to the abundance and cheapness of unskilled manual labour, seasonal employment of migrant workers, including many women and children, the so-called *boias-frias* ("cold-meal eaters"), has remained high, with working

conditions leaving much to desire. This situation is basically caused by the concentrated agrarian structure, with most land owned by the usinas and leaving no room for other cultures and activities. One solution to the problem would be to induce the expansion of mechanized harvesting and gather the areas where this cannot be done (due to topography and other environmental reasons) for redistribution through a program of agrarian reform. With regard to the environment, the two main issues reside nowadays in the yearly pre-harvest burning of cane crops—a practice that can be eliminated through the expansion of mechanical harvesting—and the dumping of huge volumes of untreated vinasse in the soil, formally for fertilization purposes. This last practice occurs more intensely in the areas and units specialized in (direct) ethanol production, since the output of each liter of this fuel generates the emanation of twelve liters of the aforementioned highly polluting effluent.

Throughout their long and circumstantiated historical synthesis, Pedro Ramos and Arakén Alves de Lima frequently call the readers' attention to several of these problems. But these clearly don't seem to be their main concern. On the whole, they could have done a much better work on impacts by choosing and using more specific and more pertinent bibliographical sources.<sup>15</sup>

Jock Galloway's paper on the modernization of Southeast Asia's sugar production before the Second World War is also only indirectly concerned with the socioeconomic and environmental impacts of sugarcane's expansion in that region. Its main interest lays in the establishment during the period under analysis of central milling and in the introduction and diffusion of new varieties<sup>16</sup> of cane by six colonial powers: the Netherlands, Japan, United States, Britain, France and China.

The first two of these strongly supported modernization, quickly transforming their respective colonial areas—Java and Taiwan—into major sugar producers. They represented the success stories of technological innovation during those years, with the Philippines, then under American colonial administration, lagging a good deal behind. In that period there were also the so-called cases of “Where Empires were not Interested,” namely those of British Malaysia, French Indochina, Thailand (then as today formally an independent country) and China. In all of them sugar production either stagnated or declined instead of growing, and its modernization was to become only a post-War development, with Thailand being nowadays the main producer and exporter of the region.

In accordance to its subject-matter, the paper does not describe or discuss any particular impacts of sugar cane's expansion within the region. Nevertheless, some

<sup>15</sup> Among these one could mention, for instance, a recent book by Manuel Correia de ANDRADE, *Modernização e pobreza...*; or a collection of essays edited by J.M. Gusman FERRAZ et al., *Certificação socioambiental do setor sucroalcooleiro*.

<sup>16</sup> The proclaimed novelty of the latter as a subject in sugar history should be relativized, since the Author apparently didn't take cognizance of some papers published in the mid-1970s by the American economist Robert EVENSON, namely: “International Diffusion of Agrarian Technology”; “International Diffusion of Technology: a Case Study of Sugarcane Varieties”; and “International Transmission of Technology in the Production of Sugarcane”.



of its propositions may be taken as working hypotheses in this regard. Thus, at pages 3 and 4, it states that, before the period studied by Galloway,

Sugar cane [had] remained largely a peasant crop, rather than a plantation crop as it was in the Americas. There was no use of slave labour. Southeast Asia had become part of a distinctive Chinese sphere of sugar production that was sufficient to satisfy local needs—*per capita* consumption of sugar remained very low—and to maintain [a few] exports to Japan and even to Europe ... This is what western colonial science was to remove.

While the varietal revolution's contribution consisted in "providing the sugar industry with a reliable supply of its basic raw material" (p.5), the central factory system transferred the ownership of the industry "from local hands to foreign companies based in the metropolitan centers," and it "had an impact on [local] society that it is not easy to plot on maps or record in tables" (p.6). Or, in the Author's own words,

It introduced a new discipline to rural life. Cane farmers had to respond to the demands of the factories, be bound by contracts, plant and harvest to order ... The farmers became part of a large organizational machine and had to fit it. Gone was the autonomy of supplying and operating their own modest mills. Another innovation was the introduction of wage labour on a scale new to the region ... The houses for these workers, near the factories, created villages. The central factories were, in brief, powerful agents of change. (*Ibid.*)

The best empirical evidences of such transformations occurred in Taiwan, where:

The fifty central factories built between 1900 and 1940 replaced the 1,400 traditional mills. In 1940 only 59 remained ... Non-centrifugal sugar accounted for only one per cent of total sugar production. The Chinese system of sugar production, which had been an important part of the Taiwanese agriculture and of the island's culture for more than 300 years, had been reduced to remnants, surviving only in the mountainous retreats of the island. (p.16)

Covering almost the same years as Galloway, the paper by Daniel Campi and Patricia Juárez-Dappe, although clearly centred upon a comparative analysis of the origins and initial development of Argentina's and Peru's sugar industries, brings to the fore some very important and interesting differential social impacts of their respective expansions.

On the northern coast of Peru, the local sugar industry presented at the time some similarities to its Brazilian counterpart, with a strong concentration of agricultural land and its resources (specially water) in the hands of a few mills, thus shaping a strong vertical integration of the productive system (p.11-12). But in the Argentinian province of Tucumán, the local sugar mills never arrived to integrate

vertically most of the production of their raw material (p.13-14), thus pointing to a completely different social and political structure (p.15-17). Consequently the labour force enrollment and regimentation strategies of these two countries differed considerably (p.17-19), although recurrent strikes and labour conflicts did appear in both of them.

The two remaining papers deal with contemporary problems of our time. That of Horacio Crespo analyses the present situation of the Mexican sugar industry *vis-à-vis* the North American Free Trade Agreement (NAFTA) dominated by the United States. The treaty from which it originated was signed by the governments of the two named countries plus that of Canada, at the end of 1993. But the changes in Mexico's economic model had been initiated ten years earlier, in consequence of the country's foreign debt crisis of the early 1980s, by completely transforming the structure of its national economy, the role played in it by the State, and the adjustment of its relationships with the economy of its powerful northern neighbour.

Within these changes, the Mexican sugar industry, which until the early 1980s had been under government control, was completely privatized, thus reverting completely more than half a century of state intervention in its affairs. This process however resulted in a growing indebtedness of the recently privatized sugar mills, forcing the Mexican government, in September 2001, to expropriate almost one half of them (27 among the sixty then operating in the country) and to take other measures in order to protect the cane growers and the workers of its industrial transformation.

Another crucial problem for the industry's survival and development has to do with the increasing competition that it is presently facing from the part of High Fructose Corn Syrup (HFCS) production located both in the USA and in Mexico. In its present state, Crespo's paper doesn't present any element with regard to the environmental or socioeconomic impacts of the recent evolution of Mexico's sugar industry.

Finally, the paper by David Lincoln discusses the origins, developments and prospects of the Southern African Development Community's (SADC) sugar trade protocol signed in 2002. Ten of its thirteen countries produce cane sugar, and seven of these are net exporters of the product. South Africa has the biggest sugar industry, followed by Mauritius, Swaziland and Zimbabwe.

This region's sugar production originated in the latter part of eighteenth century on the Indian Ocean island of Mauritius, whose industry until the beginning of the twentieth century had resembled those of the contemporary plantation societies of the Caribbean. The industries that emerged on the Southern African sub-continent were more akin to those of Hawaii and Australia. Nowadays all have corporate do-minated structures coupled with some form of state intervention or participation. And throughout the region, these sugar industries are all expected to play some socio-economic developmental role. (p.4). Their success in this regard

however largely depends on export earnings, since most involved countries have small domestic markets.

Like the Mexican with NAFTA, these countries and their sugar industries are heading toward quite difficult times, due to the World Trade Organization market liberalization policies and because of the probable demise of the European Union's presently supportive sugar regime. These problems, of course, are not a matter of concern for engaged historians alone. David Lincoln mentions in his paper the part taken in their discussion by NGOs like Oxfam. But there are also still other actors already involved, and perhaps even more influential, such as the World Bank.<sup>17</sup>

On concluding this report, I would like to express the great pleasure that I felt with the reading of these eight papers, from which I had the opportunity to learn a lot. World sugar historiography is an outcome of the systematic confrontation and analysis of national sugar histories. In order to maintain alive this subject, meetings like this one need to occur more frequently. Our present task has been concluded, let us now immediately think about the next ones.

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<sup>17</sup> See in this regard Donald MITCHELL'S "Sugar Policies: Opportunity for Change".

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