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*Erasmus*

***How Sugar Became Daily: The Link of Colonial Sugar Reinforcement to  
“Sweet” Embeddedness in Javanese Dietary Culture***

**A Research Paper Design**

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## **Abstract**

This research traces how sugar, once a ceremonial luxury of Javanese elites, became a normalized daily staple that continues to shape dietary culture in postcolonial Java. It reconstructs the historical and cultural processes that embedded sweetness into everyday life between 1900 and 1993. Drawing on Sidney Mintz's *Sweetness and Power* and food-regime theory (Friedmann & McMichael), the study relocates analysis from metropolitan consumption to colonial peripheries, showing how coerced cultivation, industrial infrastructures, and postcolonial developmentalism together transformed sugar from an export commodity into a symbol of modern respectability. Using archival sources, colonial economic histories, and descriptive evidence from the Indonesia Family Life Survey (1993 & 2014), the research identifies enduring regional contrasts between the Javanese and Sundanese, where Javanese areas (Central Java, the Special Region of Yogyakarta, and East Java) proximity to sugar mills and plantations normalized sweetened diets, while West Java's tea-based ecology fostered lighter tastes. These sensory divergences reveal how colonial zoning and labor organization reinforced dietary cultures. Post-independence reclassification of sugar as a domestic necessity, combined with neoliberal import policies, sustained these habits even after local production declined. The study proposes the concept of colonial taste inheritance to explain how structural and symbolic legacies of the sugar economy persist in present-day consumption. Ultimately, it argues that Java's "sweet embeddedness" exemplifies how power, infrastructure, and cultural meaning co-produced a lasting dietary regime where colonial extraction continues to flavor postcolonial modernity.

**Contribution to development studies:** This study contributes to Development Studies by revealing how colonial economic structures continue to shape consumption inequalities. By tracing the transformation of sugar from an export commodity to a domestic staple, it connects agrarian history, cultural anthropology, and political economy, showing that food preferences are not simply cultural habits but outcomes of historical power relations. The analysis advances food regime theory by extending it to the Global South's consumption side, demonstrating how colonial infrastructures and postcolonial developmentalism co-produced enduring dietary norms.

**Keywords:** Colonial legacy, dietary inequality, food regime, Java, postcolonial consumption, sugar economy, taste culture,

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# Chapter 1

## Introduction

### 1.1. Background: The Origins of Cultures and Tastes in Java Island

The island of Java is one of the biggest islands in Indonesia which consist of a diversity of ethnicities, cultures, and customs. It contains a dynamic fusion of ethnic groups, with the Javanese from Central and East Java accounting approximately 40% of Indonesia's population, followed by the Sundanese from West Java (BPS, 2015). Even though they live close to one another, the Javanese and Sundanese have very different ways in terms of their dietary preference especially when it comes to sweetness. This difference in taste persists and is acknowledged by the majority of the people in Indonesia, when Javanese identity is typically linked to a cultural preference for sweetness. This difference is very relatable to me as I come from a culturally mixed family where my father is Javanese and my mom is Sundanese. Growing up, I noticed that my father always sweetens his tea with sugar (white sugar), whereas my Sundanese mother prefers her tea unsweetened simply because she likes how fresh it tastes. These habits are not just oddities that people do, but they are also part of a broader and widely accepted pattern of food consumption across Indonesian society.

The typical stereotype in Indonesia is that Javanese people are really into sweet things. This idea has been passed down through generations, and the link between "Javanese" and "sweetness" has become practically ingrained. This idea is not merely based on stories, yet it is reflected on a real life observation towards the things people do every day and what they prefer to. For instance, long standing sweet tea brands like Teh Botol Sosro, which is from Central Java and very popular among Javanese people, show how much sweetness has been accepted by the people of the region. Their long lasting popularity is not merely a business success story, but it also shows how people's tastes have changed and how they have changed everyday life in Java. In this way, the regional differences in taste preference is not merely maintained but they are also constantly recreated in both everyday life and commercial representations. Align with what Mintz' (1985, p. 121) has stated that when a taste, including sweetness, becomes deeply linked to a place or community, it is not only because of personal choice, but rather a long term patterns of trade, power, and ordinary life shape these meanings across history. People's ideas about what tastes "normal" or even "natural" are often shaped by how they learned about them in the past through social and cultural processes. In Java, the sweet palate associated with Javanese identity has been created by centuries of embedded habit and symbolic meaning, as well as availability. This is especially clear when one takes a look at the Sundanese dietary culture when compared to the Sundanese culinary culture, which has developed a significantly distinct approach to taste.

Sundanese cuisine is characterized by its freshness and simplicity reflected on their traditional culinary settings, such as *lalapan* (raw vegetables as side dish), clear broth soup, and unsweetened tea. In contrast, Javanese cuisine, especially in Central Java and the Special Region of Yogyakarta, has sweeter taste profiles because of the frequent use of brown sugar or white sugar in both savory and sweet dishes. For example, dishes like *gudeg* (jackfruit coconut brown sugar stew), *semur* (sweet soy sauce spiced stew), *bacem* (sweet marinated tofu or tempeh), and *wedang jahe* (sweet ginger drink) (Pudjastawa, A.W. (n.d). These taste

preferences are a fluid pattern that can continuously overlap and adapt across regions, classes, and households. In Javanese households, sweetness is more than just a flavor, but it is a part of everyday life. Sugar can be found in both casual and formal occasions, from morning tea to traditional snacks in a special event.

While current discourses typically correlate sugar with health concerns or lifestyle related diseases, these viewpoints fail to reflect the bigger picture. This study did not examine the medicinal effect of sugar. Instead, it seeks to understand why sweetness is very significant in Javanese dietary culture. This habit was shaped not only by individual choices but also by significant historical changes in trade, governance, and domestic life that solidify its cultural and habitual integration. In Javanese homes, sweet tastes are often linked to warmth, welcome, and compassion. It is considerate as a symbol of respect and politeness to offer guests sweet tea or snacks. Even now, trying to cut back on sugar can be hard emotionally. It is not only because it will change the flavor, but it is also because some people might feel like something important and valuable is missing from their family life or social occasions. A study by Kusumo et al. (2020) found that a lot of people who try to reduce the use of sugar have social and emotional problems. This is not because people are not aware enough, but because sugar, especially the Javanese brown sugar (*gula Jawa*) is a big part of how people express love, share food, and make friends. Another evidence of how much Javanese people love sweet sweets is that they are a component of Javanese rites of passage, including *Tedhak Siten*, a traditional Javanese ritual that marks a baby's first steps on earth and used to be just for royal families. Sweet treats like *jenang* (sweet stick rice porridge), *apem* (steamed fermented rice cakes), and *tape* (fermented sweet cassava) are signs of family peace, God's favor, and the perpetuation of family traditions. But during time, sweetness spread from rituals to everyday life. This transition did not happen by accident, the embedded preference for sweetness in Java that was established earlier during the pre colonial era was reinforced by changes during and after colonial times that made sugar, specifically refined sugar to be easier to get, cheaper, and a symbol of modern home respectability. Consequently, it illustrated the co-evolution of power and taste (Fadhillah, 2024; Matsuyama, 2009).

In a similar way, India provides a notable parallel where sweetness, especially jaggery or gur has been deeply embedded in both nutritional and symbolic dimensions. Jaggery is a traditional sugar that is prepared by boiling sugarcane juice until it turns into sugar. The Indians believe that gur has beneficial effects for health and nutritionally, it is proven to contain minerals including calcium, iron, and phosphorus, and antioxidants (Rao & Singh, 2021, p. 1). This complex composition delays digestion compared to refined sucrose, allowing a longer lasting release of energy, while it remains calorically dense and should be ingested in moderation (Sharifi-Rad et al., 2023, p. 2). Jaggery was very significant to India's nationalist movement in many ways than only as a food source. While detailed scholarly investigations of jaggery in this context are rare, histories of food and cookbooks illustrate how culinary choices transformed into moral and nationalist sentiments, emphasizing indigenous products over imported or commercial substitutes (Gupta, 2024, pp. 740–741). These symbolic layers helped jaggery stay popular even after commercial sugar systems took over by making it a part of ceremonies, household cookery, and identity. Sugar in India had moral, national, and cultural importance, exactly like in Java, where sweetness was tied to constructing a nation, modernity, and home identity.

Therefore, it is essential to examine the transformation of sugar from a substance limited to symbolic rituals and elite celebrations to a key element of the daily diets of ordinary Javanese homes; when did this change begin and what factors made sugar financially viable for all kinds of people? These questions can not be answered only by cultural analysis but needed a more in-depth investigation of the structural adjustments that occurred during colonial and postcolonial periods, notably the political economy of sugar production and trade that altered local consumption practices. This research tries to engage three interconnected mechanisms; firstly, how colonial infrastructures and trade networks facilitated the increased availability of refined sugar. Second, postcolonial nationalist programs and discourses that changed the way people thought about sugar which made it seem modern and respectable and how households normalized sweetness throughout the early neoliberal era. Finally, the continuation of household sugar consumption in the present era.

This research employs Sidney Mintz's fundamental text, *Sweetness and Power: The Place of Sugar in Modern History* (1985), to examine the historical dynamics that converted sugar from a luxury commodity into a prevalent dietary staple in Britain. Mintz illustrates how sugar, once rare and used ceremonially by the elite, became embedded in the daily life of the British working class, chiefly through the exploitative plantation economies of the Caribbean. Mintz's research centers on the dialectical interplay between colonial production and urban consumption, demonstrating how global capitalism transformed both material diets and symbolic value systems. Mintz notably underscores the consumer dimension of the imperial center and perceives the Caribbean as a site of coerced production. The present use of sugar in the colonized areas of its production, notably Java, which became a significant sugar exporter under Dutch colonial governance in the 19th and early 20th centuries, is still largely unexamined (Bosma, 2013). Consequently, this study reverses Mintz's center-periphery emphasis by illustrating how sugar became integrated into the societies of its production, rather than solely those of metropolitan demand.

## **1.2. Problem Statement**

In modern Javanese society, sugar is a common element, integrated into tea, incorporated into snacks, and infused into everyday meals with widespread approval. The extensive integration of sweetness seems inherent, even unavoidable. The current widespread usage of sugar shows a contrasting reputation, where sugar was a commodity that can only be consumed by the elites. Historically, sugar possessed symbolic significance, manifesting in rituals and celebrations confined to aristocratic households. Sugar now characterizes the taste tendency of millions across various social strata. This shift, from a symbol of privilege to a commonplace dietary essential, demands careful examination.

Therefore, how did sugar, once a luxury for the few, become a common part of everyday life for Javanese people, and what made this change happen?

Analyzing this local narrative possesses greater importance. As global health systems contend with escalating rates of non-communicable diseases, especially those associated with excessive sugar intake, comprehending the normalization of sweetness in everyday life is an increasingly pressing issue. The situation in Java is not simply a local anomaly, yet it

embodies broader inquiries regarding the interplay of historical tastes, economic factors, and cultural influences that contribute to contemporary health vulnerabilities.

### **1.3. Research Questions**

#### **1.3.1. Main Research Question**

1. How did colonial and postcolonial sugar economy regimes interact with cultural and socio-economic differences to shape sugar consumption practices in Java between the 1800s and now?

#### **1.3.2. Sub-Research Questions**

1. How did the sugar industry's dominance in Java during the colonial era (1800s) affect domestic sugar consumption in the Indonesian island of Java?
2. To what extent does the colonial era sugar production still affect regional or national sugar consumption?
3. To what extent have post-colonial, globalized neoliberal marketing of sugary products by global businesses eliminated earlier colonial and cultural (pre-colonial) influences?

### **1.4. Contribution of the Study**

#### **1.4.1. Theoretical Contributions**

This research expands upon Sidney Mintz's (1985) seminal research on sugar by redirecting the theoretical emphasis from imperial consumption centers to the colonized periphery, particularly Java, where sugar was cultivated under exploitative colonial institutions and gradually integrated into local food culture. Mintz examines the influence of sugar on the decision-making of British working-class individuals through labor in the Caribbean colonies. Nevertheless, he provides limited insight into the integration of these commodities into daily life in the colonies, such as in Java. Furthermore, this research makes an important contribution by stating that the Javanese desire for sweetness is not only a new development from colonial times, but rather an enduring part of their culture that was reinforced and normalized during and after that period. This challenges the dichotomous perspective employed in prior studies, which posits that the consumption of sweets is either merely a precolonial cultural tradition or merely an economic imperative during colonization. This research examines how the structure, spatial organization, and economics of colonial sugar production reinforced and intensified pre-existing societal norms. In this way, sweetness became a rule instead of just something people did.

Moreover, the research employs food regime theory (Friedmann and McMichael, 1989; McMichael, 2009) to illustrate the evolution of dietary preferences amid significant transformations in the food system, transitioning from colonial export economies to postcolonial developmentalism, and currently to contemporary neoliberal agri-food systems. These rules have kept sugary foods available, cheap, and popular in Java, linking old systems to present health and consumption trends. It shows that global systems and state-market partnerships still impose colonial-era taste rankings on current diets. Anthropological ideas on taste present an alternate viewpoint. This research shows that taste is not merely a result of personal choices. Instead, it comes from material and social structures that have changed what people think is good throughout time. As Guthman (2002) says, taste does not form on

its own, yet it is shaped by how food is made, shared, and represented in everyday life. The colonial sugar economy in Java did not only shift the meaning of sweetness, but it also made sweet felt common and natural. Therefore, the consumption habits of sugar changed from what was formerly only available to the rich became part of everyday life through accessibility, advertisements, and adaptations. Over time, sweetness became not only easy to find but also quite familiar, changing what people want and enjoy. This long-lasting effect might be thought of as a form of "colonial taste inheritance," where the tastes that individuals developed during times of economic control still affect how they eat now.

These persistent flavors also prompt inquiries for public health. Otero (2018) notes that the rising prevalence of diabetes and obesity in the Global South are not solely because of Westernization or globalization, but they are connected to how the global food system operates, notably how it fills markets with cheap, processed, and sugary foods both in colonial or post colonial era. Not everyone is affected equally by these food systems. In this modern era, it especially goes after communities who are already weak because of inequality by not having many healthy options, or long-standing dietary patterns. Because of this, even beneficial policies like sugar taxes generally do not work to influence behavior. They stumble across taste preferences that have been passed down through generations. Therefore, to really deal with diseases that are caused by diet, we need to know more than just how to teach people or control the prices, instead we also need to know how history, inequality, and everyday habits affect what people eat and why.

## **1.5. Scopes and Limitations**

This research explores the historical and cultural significance of sugar consumption in Javanese dietary life, notably between the early twentieth century and the early 1990s. While certain later events, such as the consequences of neoliberal trade policies and findings from the IFLS 2014, are included to provide context, the research stays focused on how sweetness became embedded in everyday activities through colonial, developmental, and early postcolonial transitions. The research focuses on long-term structural and symbolic changes rather than offering a comprehensive overview of the current food market. The use of household survey data provides an overview of regional spending patterns, but it does not capture personal meanings or the entire complexity of social connections related to food. Furthermore, the study makes no attempt to quantify health outcomes or establish biological linkages. However, its value comes in examining how power, infrastructure, and culture collaborated to normalize sugar consumption in Java throughout time.

## **Chapter 2**

### **Theoretical framework**

#### **2.1. Colonial Agrarian Policies and the Restructuring of Food Systems**

The Cultivation System (1830–1870) during Dutch colonial rule forced Javanese peasants to grow cash crops for export, like sugarcane, instead of food crops for their own use (Cahyono, 2005). This resulted in a radical restructuring of agricultural production, aligning Java with the global capitalist economy (Bosma, 2013, p. 102). The reallocation of land and labor from food to sugar cultivation not only increased the colonial state's wealth but also laid the groundwork for a sugar-dependent diet. This transformation reflects the dynamics of the first food regime, which Friedmann and McMichael (1989) define as colonial territories supplying raw materials and cash crops to European metropolises in exchange for manufactured goods. The displacement of food crops in favor of export commodities harmed food sovereignty and contributed to nutritional shifts. Mintz (1985, pp. 133-135) explains the transformation of sugar, which was once exclusive to the elite, into a dietary staple for the working class, as it became integral to capitalist labor diets in colonized regions. In Java, the colonial legacy of sugar not only structured the economy but also shaped food preferences that still exist today.

As colonial sugar production grew in 19th century Java, sugar became a part of both trade and everyday cultural and culinary practices. Sweet foods were originally eaten by the rich and powerful in colonial times. But as sugar became cheaper in the late 1800s, more people, including city workers and middle-class families, could afford them (Bosma, 2013, pp. 121–126). This transformation reflects what Mintz (1985, pp. 133-135) calls sugar's transition from luxury to staple driven by capitalist logics that linked low-cost calories to labor productivity. This change in Java happened at the same time as changes in cultural meanings. Sweet foods have become a big part of social events and ceremonies. For example, in the Tedhak Siten tradition, *jajan pasar* (traditional sweet snacks) stand for the values of the community and the child's future (Fadhillah, 2024, p. 1865). Sweetness in this context means more than just taste; it also represents harmony, hospitality, and moral upbringing. The colonial logic of sugar production merged with cultural practices over time, cementing sugar's status as both an economic commodity and a symbolic necessity in Javanese society.

#### **2.2. Cultural Histories of Sweetness and Consumption**

While material infrastructures determined availability, the social and symbolic importance of sugar evolved simultaneously. Mintz (1985, pp. 148–155) demonstrated that in Europe, sugar transitioned from a luxury commodity to a dietary essential as it became integrated with industrial capitalism and the developing working-class diets. Knight (2009, p.198) asserts that the consumption histories in producing regions have received markedly less examination. His research illustrates that in colonial and postcolonial Indonesia, refined white sugar gradually replaced locally sourced brown sugars, symbolizing hygiene, respectability, and modernity (Knight, 2009, pp. 202–204). In the early 1900s, ads, cookbooks, and other marketing materials helped people see sugar as an important part of their daily lives. The process of reclassification was very cultural, where sweetness became both a taste preference

and a sign of social aspiration. In the 1950s, governmental and commercial narratives solidified these associations, mirroring extensive initiatives of modernization and development.

Additionally, the way people in Java eat and what they like to eat affected how sugar became a part of everyday life. Knight (2009, pp. 202–205) talks about how sugar became a symbol of modern respectability in colonial Indonesia. Recent ethnographic and health-oriented studies indicate that the Javanese, particularly in Central Java, uphold traditions of sweet dishes, especially during rituals such as Tedhak Siten that represent joy, hospitality, and social harmony (Fadhillah, 2024). These customs often use sweets as signs of cultural continuity and sophistication, which is different from Sundanese cooking, which focuses on freshness and less sweet flavors. This difference within the island shows how important it is to look at eating habits from a culturally specific point of view instead of a national one.

### **2.3. Modernity in Development and National Reclassification**

Sugar which was just a commodity, changed into an emblem of modernity and national development after Indonesia independence. This can be seen from Sukarno and Suharto administrations, where the government used sugar's symbolic and economic value to push a developmentalist agenda, where factories like the Madukismo sugar factory, which were once Dutch-owned colonial production facilities, became symbols of the country's industrial strength. Bosma (2013, p. 230) says that in postcolonial Indonesia, these government-run sugar mills were seen as symbols of technological independence and the country's desire to be economically independent. However, the evolution of sugar's significance transcended industrial discourse, this can be seen from Matsuyama (2009), where he claims that in the decades following independence, the state intentionally transformed sugar from a colonial export commodity to a domestic necessity. Sugar is slowly portrayed as an important part of the ideal Indonesian household, being used in making tea, snacks, and holiday foods. This reclassification resulted in both an economic and cultural shift, integrating sugar into the daily habits of various social classes.

Moreover, this paper also uses Anderson's (1983, pp. 132–133) idea of imagined communities as a starting point to argue that state-led sugar consumption standards helped create a sense of Indonesian modernity. Through the collective and repeated act of consuming refined sugar, whether in sweetened tea or festive dishes, Indonesians grew to see themselves as part of a modern yet culturally rooted nation, where domestic luxury and tradition could coexist with progress. As a result, the post-colonial Indonesian state deliberately redefined sugar's social meaning, rather than just inheriting it from colonial times. The introduction of sugar into daily life was not accidental; it was driven by ideology, with support from developmental discourse and institutional modernization. This change helped make sugar consumption in Java more "democratic." It used to be a luxury item for the wealthy or for religious ceremonies, but now it is a common part of everyone's diet. This is similar to what Mintz (1985) said about how sugar's cultural impact comes from how it changed from a luxury item in colonial times to a common substance made by political and economic institutions. By seeing sugar as both an economic resource and a cultural symbol,

we can learn more about how the sweet taste preferences in Java have stayed the same because of colonialism and the building of a new nation.

## **2.4. Consumption Trends and Social Stratification**

From Matsuyama (2016, pp. 266–267), he explained that by the 1970s to 1990s, sugar had become a staple food for Indonesians of all income levels. This change marked the end of a change that started soon after Indonesia became independent in 1945, when the country started using more sugar than it exported. This is because in 1930, sugar exports were about five times larger than domestic consumption, but by the late 1950s, exports had dropped by nearly 95%, indicating a complete shift toward local consumption. Initially, centrifugal sugar wasn't a part of the traditional diet, but it was used only for the urban and elite tastes, while rural areas used black or palm sugar. But, after independence, as a result of development projects and a growing population, sugar became more common and being used in daily life. This shift matched with what Mintz's (1985) explained, where sugar's political and cultural importance comes from its change from a luxury item for colonists to a common good. Additionally, empirical data from the inaugural wave of the Indonesian Family Life Survey (IFLS, 1993) indicates that by the early 1990s, refined sugar was routinely consumed by low-income households in rural Java, this shows that there is a material transformation in food accessibility and a cultural integration of sweetness into daily diets happening at that moment.

The widespread use of sugar in basic cooking, like in sweetened tea, a popular drink made with refined sugar, shows that what used to be a sign of wealth has become a normal part of daily life for people in cities and rural areas. Moreover, an article from a well-known Indonesian magazine that talks about the history of drinking sweet iced tea in Java backs up this change in food traditions. Sweet iced tea is said to have first appeared during the colonial period, when Java was the main place to grow tea and sugar. Where the Ice cubes came from the United States in the 18th century at a high price. But in the 1800s, as a result of a better trading system, ice cubes became more common, and they are still popular until today, especially among Javanese people (Putri, 2022). This widespread dissemination highlights the efficacy of postcolonial developmentalist discourses that redefined sugar as both contemporary and indispensable, synchronizing domestic consumption trends with state-driven aspirations for national advancement (Bosma, 2013, p. 230).

Therefore, this paper concentrates on the timeframe from 1900 to 1993 to examine the incremental historical integration of sugar into local diets, while preventing a conflation of historical causality with contemporary health outcomes. The neoliberal growth of processed food industries and global sugar markets since 1990 has certainly increased dietary risks; however, the basis for modern sugar dependence was formed during earlier colonial and developmental eras. Researchers such as Otero et al. (2018, pp. 538–541) have documented how neoliberal agro-food regimes have intensified existing consumption patterns in the Global South, however their analysis frequently emphasizes more on contemporary dynamics over historical foundations. On the other hand, this paper emphasizes more on how political-economic frameworks, plantation capitalism, state industrialization policies, and cultural modernization initiatives systematically integrated sugar into local consumption

practices. This is because, these dynamics are not incidental, they represent a complex process of taste formation that reflects overarching patterns of social stratification. Moreover, in Java, sweetness emerged as a cultural commonality that transcended class distinctions, despite its origins being closely linked to labor exploitation and colonial extraction systems. Therefore, understanding this transformation is critical for understanding how a once-exclusive item transformed into an important, yet overlooked, element of daily diet and social identity in postcolonial Indonesia.

## **2.5. Conceptual Integration and Research Deficiency**

The literature explained previously emphasizes the changing pattern of sugar consumption where sugar was only an export oriented commodity to a widespread daily consumption was not automatic, yet it happened due to the reinforcement of colonial policies through establishing colonial infrastructures that facilitated circulation, while state and commercial entities established the legitimacy of sugar through narratives of modernity and development. To understand this analytically, this research uses McMichael's (2009, p.140) food regime framework by contextualizing this history within the overall development of global capitalism that illustrates how food systems simultaneously reorganize economies and affect daily consumption patterns.

Despite these observations, there is a lack of empirical research documenting the evolution of these dynamics in Java during the late colonial and early post-colonial (post-independence) periods. Furthermore, Mintz (1985, p.151) describes the history of sugar consumption in producing regions as "largely unwritten," while Knight (2009, p.199) promotes local studies that integrate it with evidence-based documents from archival material, media analysis, and household data. Therefore, this research addresses this gap by analyzing how colonial and developmental regimes from 1900 to 1993 affected the way sugar became part of Javanese culture. This helps make history more fair by showing that Java was not simply a place where resources were taken, but also a place where global food systems were learned about, talked about, and changed in everyday life.

## **Chapter 3**

### **Data and Methodology**

#### **3.1. Research Design**

This paper uses document analysis, literature review from secondary literatures, and descriptive quantitative analysis to explain the historical trajectory of colonial sugar industrialization that could be analyzed comprehensively. This methodology was chosen because it is suitable for analyzing the enduring changes in production systems, symbolic reclassification, and consumption practices throughout colonial and postcolonial eras. Additionally, it refrains from making deterministic causal assertions regarding current health outcomes while offering a thorough analysis of how sugar evolved from an export commodity to a domestically integrated staple. Finally, this design is based on the recommendations of Mintz (1985, p. 151) and Knight (2009, p.199) for locally grounded studies that integrate economic, cultural, and empirical evidence to document the development of modern consumption.

#### **3.2. Data Collection and Analysis**

The study utilizes colonial archives, including the Koloniaal Verslag, and academic works that analyze the Cultivation System, post-independence factory development, and the emergence of neoliberal food regimes (Mintz, 1985; Bosma, 2013; Knight, 2009) in order to explain the historical evolution of sugar production and its transition into a fundamental dietary component. Additionally, this research also utilizes the Indonesian Family Life Survey (IFLS 1993 & IFLS 2014) to illustrate consumption patterns by social group and region, which is a longitudinal survey in Indonesia that includes samples from the Indonesian population, with over 30,000 people living in 13 of the country's 27 regions. From the data, it shows how much 36 households in the provinces of Java spent on a certain list of foods and drinks. These provinces are the Special Capital Region of Jakarta, West Java, Central Java, the Special Region of Yogyakarta, and East Java.

We will look at the data using two different methods:

1. Analysis of documents: Archival documents from Geerligs and Hendriks (1912): *The World's Cane Sugar Industry, Past and Present*, particularly the datasets detailing sugar production in Central Java, West Java, and East Java from 1893 to 1905. These figures will be used to show and compare how much sugar was made in each of those provinces. Additionally, the data will be examined through secondary historical literature to contextualize production disparities among regions, connect them to colonial policies and infrastructure investments, and elucidate how these historical trends shaped the evolution of region-specific dietary preferences and socioeconomic hierarchies.
2. Descriptive Statistical Analysis: We will organize and cross-reference the first wave of IFLS data from 1993 and the IFLS data from 2014 to show and compare how households in different provinces of Java, such as Special Capital of Jakarta, West Java, Central Java, Special Region of Yogyakarta, and East Java, spend their money

on food and drinks. This methodology seeks to provide empirical context rather than deducing causality.

### **3.3. Ethical Consideration**

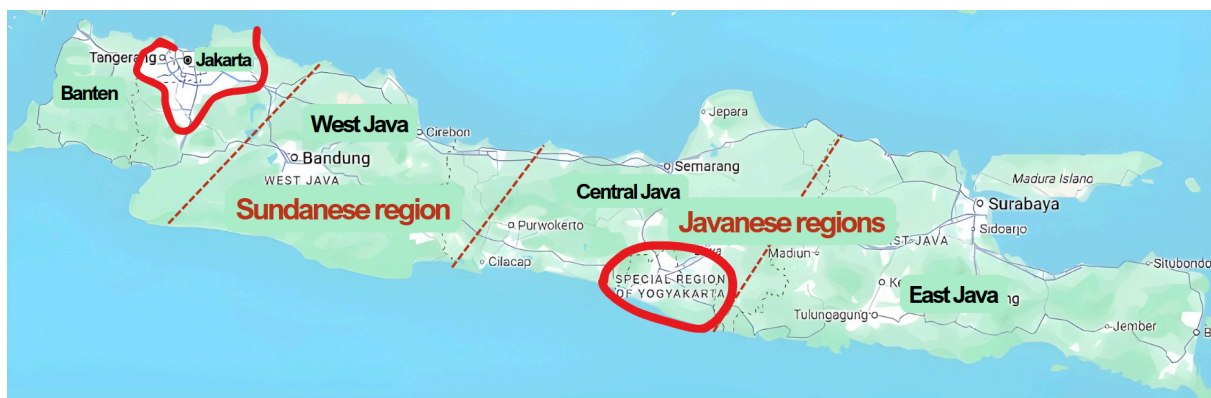
This research solely employs archival, published, and secondary data. No personal or sensitive data will be gathered. All sources will be cited transparently, and efforts will be made to present findings with cultural sensitivity.

## Chapter 4

### The Cultural Foundation of Tastes: Sundanese vs Javanese

Java is a place that is rich in its histories and cultures. Within the island, it contains a dynamic fusion of ethnic groups, with the Javanese from Central and East Java accounting approximately 40% of Indonesia's population, followed by the Sundanese from West Java (BPS, 2015), making Java the most densely populated area of the country. Javanese are not only make up the majority of the population, but they also bring with them many of the island's customs, culinaries, and symbolic meanings. The diversity inside it makes Java not a singular entity, yet it belongs to many ethnic groups that are dominated by the Javanese and Sundanese, as the two biggest ethnic groups that have a long history on the island of Java. Historically, Hindu-Buddhist kingdoms ruled Java, namely Tarumanegara in West Java (Sundanese area) and Mataram and Majapahit (in Central and East Java, Javanese area). Even though they share similar roots of teachings, these two groups have different ways of showing their culture, specifically their dietary preferences.

For example, The Javanese emphasizes the importance of symbolic manners and the hierarchical social structures that come from court traditions. On the other hand, the Sundanese are known for being more open and egalitarian in their social interactions, even though they are still very much based on local customs (Invoice Indonesia, 2025; Ristiningsih, 2023, pp. 8-20). In addition, the fact that they live in different places has affected their cultures and styles of cooking. West Java which is mountainous, steep terrains, and cooler climate, which is good for plantation crops like tea and fresh vegetables. On the other hand, Central and East Java that is dominated by flatter plains are more suitable for growing rice and farming on a large scale, which led to the rise of vast kingdoms and later sugar plantations. In addition, Hindu culinary practices, which emphasize the balance of tastes and sweetness as a vital element that is frequently present in every meal. While this culinary settings are balanced by sour, salty, and spicy aspects, sweetness still steal the spotlight by playing an important symbolic role. In Javanese culture, where symbolic meanings are preserved, this religious rule probably helped sweet flavors become more common in everyday cooking. Meanwhile the Sundanese, on other hand, may have had a different dietary evolution because of their ecological settings and more open social structures (Invoice Indonesia, 2025; Ristiningsih, 2023, pp. 8-20).



### Fig 1. The Island of Java

Source: (Google Maps, 2025)

Continuing the conversation of food disparities, Sundanese and Javanese cultures still have different tastes and ways of eating. In West Java, the Sundanese are known for valuing freshness and natural taste, with not much addition of sugars. This is shown by the fact that fresh vegetables (*lalapan*) are a typical side dish that will be served at every Sundanese dinner. Another thing you will find at any Sundanese dinings is a boiled unsweetened tea that is served on any table as a welcome drink (Chaniago & Widyanti, 2024). This custom comes from the fact that West Java has terraced mountains, lower temperatures, and many gardens with vegetables and tea, which are mostly dominated by the local plantations. Therefore, tea becomes a big part of Sundanese daily life because of these settings. In West Java, people usually consume tea plain, without any added sugar to keep its original taste. This habit is logical to understand because of the privilege of the location itself, where the West Java area is very suitable for growing tea so that the people surrounding it could access better and fresher quality tea so that they do not need any extra flavoring. Offering unsweetened tea in Sundanese restaurants is a sign of hospitality that shows tolerance for visitors' different tastes without assuming that everyone will like sweet things (Chaniago & Widyanti, 2024; Kautsar, 2023).

Meanwhile, in the Javanese region, especially in Central and the Special Region of Yogyakarta, sweetness is a main element of everyday diets. For instance, several traditional dishes tend to use a lot of Javanese brown sugar (*gula Jawa*), such as in *gudeg* (sweet jackfruit coconut stew) and *semur* (Sweet soy sauce spiced stew). This difference shows that sweetness is a Javanese culinary history from before colonization and not only a modern addition or imported taste (Pudjastawa, A.W. (n.d). In Javanese culture, sweetness is very important in a symbolic way. As Fadhillah (2024) says that sweet snacks in Javanese dietary culture stand for harmony, wealth, hospitality, and the protection of family values. In Javanese moral and social relationships, sugar represents cultural views about what is proper, beautiful, and respectful. In addition, Guthman (2002) posits that taste should not merely be regarded as a personal or biological want, but rather as a construct shared within broader cultural and economic contexts. The Javanese desire for sweetness reflects cultural identity and is driven from historical material constraints that made particular sugars more available and meaningful than others. People have been growing and consuming Javanese brown sugar (*gula Jawa*) since the pre colonial period under the Majapahit ruling. This shows how food and culture are intertwined. Its geographical presence and sensory attributes align with expectations of subtle, spiritual, and communal sweetness (Fadhillah, 2024; Historia, 2025). The widespread use of sugar in traditional Javanese sweets represents a shared symbolic language of welcome and peace, while also reflecting the political economy of production and accessibility that continues to shape everyday consumption.

*Wajik*, a popular traditional sweet snack, is a clear example of how Javanese cuisine has symbolic meaning that affects both everyday life and rituals. Wardana and Setiarto (2024) assert that *wajik*, a snack composed of sticky rice prepared in brown sugar and coconut milk and shaped into a unique diamond form, originated during the Majapahit era (around 13th to 15th century) in Central and East Java. The paper demonstrates that *wajik* has persisted not only in religious contexts such as weddings, offerings, and ceremonial meals, but also in

philosophical discourse. The term “*wajik*” has similar meaning to the phrase “*wani tumindak becik*” (courage to do good), which refers to a moral ideal. Its shape (diamond) represents bravery, its texture (semi-dry, made with sticky rice) represents strong interconnectedness, coconut milk represents forgiveness, and the brown color from Javanese brown sugar represents an unwavering optimism that relationships would remain sweet and harmonious. All of the aspects contribute to its symbolic value, including balance, wealth, connectedness to the land, and ties to ancestral tradition (Wardana and Setiarto, 2024, p. 5).

However, the Sundanese also have their own special sweet treats, such as *dodol*, which is made from brown sugar or Javanese sugar and has symbolic meanings. The ecological foundation of *Gula Jawa* adds to this symbolic tradition. According to studies on traditional sugar palm tree management in Java (and also in West Java among the Cipanggulaan people), sugar palms have long been managed, tapped, and harvested for sugar in various local landraces. Local knowledge includes how to harvest sap, convert it into sugar or syrup, and preserve or process it. *Gula Jawa* was an essential component of rural household production and consumption before large-scale colonial sugar factories became commonplace (Gunawan et al., 2018).

Given that both Sundanese and Javanese derive from the same cultural teachings, namely Hinduism and Buddhism, they must share a connection in terms of applying these teachings to their social and cultural lives. According to Hindu texts that guided people’s eating practices at the time, every meal should contain a sweet taste balanced with other flavors, symbolizing optimism and the hope that life and relationships remain harmonious and pleasant (Kok Bisa, 2020; Wardana and Setiarto, 2024, p. 5). Even though both ethnic groups are rooted in the same beliefs, it is worth considering why their culinary cultures, as reflected in their tastes are so different. To comprehend the enduring nature of preferences, it is critical to conduct a comprehensive analysis of additional aspects. Therefore, we need to look deeper into the outside structural forces, such as the industrialization of sugar, which changed how Javanese people consumed and represented sweetness as it is aligned with Matsuyama’s (2009) statement that explains, habitual transformation showed how power and taste evolved together and to understand this co-evolution, we need to look closely at colonial regulations, plantation geographies, and production statistics that made Java’s political economy become “sweeter”.

## **Chapter 5**

### **The Journey of Java’s Sugar Industrialization**

#### **5.1. Sweetness and Subjugation: The Political Economy of Forced Cultivation in Java 1830-1870**

To comprehend the disparity in taste cultures between Javanese and Sundanese societies, it is essential to examine the external structural forces that have influenced their culinary preferences beyond mere cultural teachings. From Matsuyama (2009), he says that sweetness in Java was more than just a taste; it was a product of power that was made possible by colonial extraction systems. The Dutch colonial sugar industrialization project of 1830–1870, which turned Central Java into a global sugar production hub, is a great example

of this, where the change was not neutral, but rather very class-based, which caused a split between peasant labor and colonial capitalist accumulation, with the state acting as a middleman. The Dutch chose West Java (Banten and Batavia) for sugar growing because it was close to major export ports like Sunda Kelapa and Anyer and already had a system for maritime trade. Cahyono (2005, pp. 45–47) says that early plantations did well near shipping lines that carried sugar to the Netherlands, Britain, and China. But the soil and land in West Java weren't good for growing sugarcane.

By the 1830s, the steep terrain, heavy rainfall, and lack of volcanic fertility had slowed down the yields. When nature doesn't want to be turned into a commodity, colonial exploitation has its limits, as shown by the drop in sugar production in this area. Also, the fact that West Java is less populated than Central Java makes it much harder for the plantation to get enough workers to keep running. (Cahyono, 2005, pp. 18-20). The Dutch turned their attention to East and Central Java in the 1850s because their profits were falling. The new sugar frontier was made up of flatter volcanic plains, large irrigation systems (especially in Klaten, Central Java, and Madiun, East Java), and dense, manageable peasant populations. More than 100 new sugar mills were built between 1830 and 1870. Many of them were built along rivers and near railroads, where they fit in perfectly with Java's Cultivation System (Cultuurstelsel), a forced cropping scheme that used village labor and land for cash crops. This was the start of Java's deep integration into the global capitalist food regime (Cahyono, 2005, pp. 68-69).

The Cultivation System took away the Javanese peasants' control over their land and work. They had to grow sugar instead of food crops, and they often did so on their best land. Local elites helped the Dutch take resources, but smallholders paid the price: they had to leave prime agricultural areas, had less access to irrigation, and lost some of their food sovereignty because they had to make room for sugar plantations. This system set up a dual economy: one where peasants were forced to work as part of a colonial export system while still relying on a subsistence economy that was getting worse to stay alive. The money made from sugar went to European trading houses, colonial administrators, and local aristocrats, which made class structures even more unequal.

Peasants, on the other hand, were stuck in cycles of debt and dependency, and their livelihoods were secondary to the needs of global trade (Cahyono, 2005, p. 67). Friedmann and McMichael's (1989) food regime theory says that sugar became a "strategic commodity" during the colonial era (1870s–1930s). This fits with that. During this colonial period, colonies like Java were monoculture nodes that grew sugar for export to meet the caloric needs of European industrial workers and the needs of the bourgeoisie. The easier access to cheap sugar in Europe in the 1800s hid the unfair systems that made it possible. Knight (2013, p. 8) says that colonial sugar was an "empire" that hid the fact that it took land, labor, and sovereignty from peasant communities in the Global South to "sweeten" the diets of people in the Global North. However, the integration of sugar consumption in Java also affected the locals. Peasants were forced to grow crops that were meant for export, especially sugar, instead of the crops they had been growing to meet their daily food needs. In this coercive situation, peasants had to come up with ways to survive, so they started using sugar as their main food. This is reflected in the typical Javanese foods and snacks, which mostly use sugar as their main ingredient (Rahmawati, 2021).

After the formal end of the Cultivation System (*Cultuurstelsel*) in 1870, the Dutch colonial government did not stop trying to take advantage of Java's agricultural basis. Instead, they modified their strategy when the *Agrarische Wet* (Agrarian Law) and *Suiker Wet* (Sugar Law) were enacted. Because of these changes, European commercial enterprises could rent "wasted" or underused land from the indigenous communities in the guise of modernization and the law. It also allowed foreign investors to rent land that the government owned or that had been abandoned for a long time. Thus, the Agrarian Law let the capital owner take land from rural groups that had been farming cooperatively for a long time but did not have legal titles. This transformation seemed reasonable because of liberal economic arguments about efficiency and investment. However, it meant that the interests of European plantation capital came before those of local agricultural structures. These laws revolutionized the sugar industry by making farmers who used to work for the state into wage laborers or contract farmers for the private mills. Furthermore, these regulations made capitalism more massive in Java's rural areas, but they did not stop the exploitation. Instead, they transferred it from state bureaucrats to private capital via contracts that appeared to be voluntary and based on market principles (Sari et al., 2022, pp. 558-560).

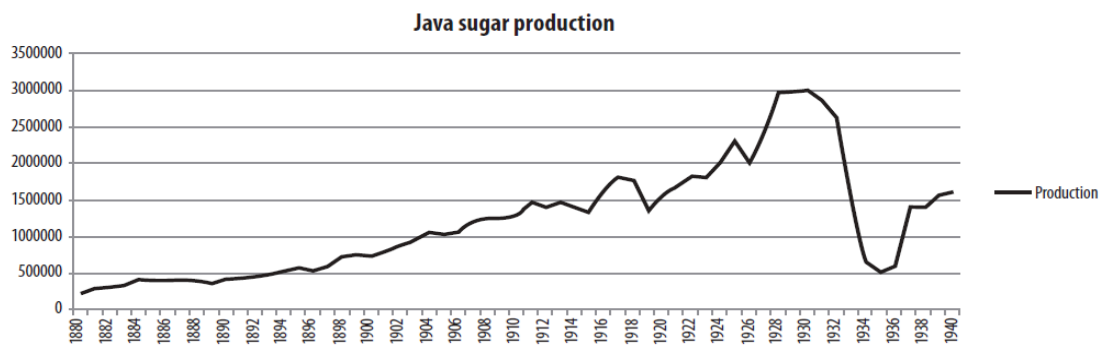
Sugar was largely an export good at this period, which made it hard for peasants to get their hands on it (Matsuyama, 2009, pp. 260-262). This restructure did not eliminate class-based inequality, rather it reorganized it. Peasants could only work on factory schedules, could not get to the best irrigated land, and had to deal with changes in the seasons and debt. This new framework that was needed caused a dual economy, where there was a capitalist export sector with modern machines and great output, and on the other hand, there was a peasant subsistence sector that did not have enough money and was getting more vulnerable. In addition, the modernization of the sugar industry which includes bigger mills. Better transportation, and higher yields was based on taking land from peasants and making them dependent on the industry. Additionally, the liberal plantation economy was backed by a colonial government that still had the power to take land. Consequently, peasants became progressively marginalized and oppressed, not only by the colony, as during the *Cultuurstelsel* era, but also by the private sector (Sari et al., 2022, p. 559). So, even though the *Cultuurstelsel*'s formal ways of forcing people to work for the state were ended in 1870, the violence in the colonial economy got worse. The false sense of freedom concealed networks of dependency, exploitation, and racial-capitalist hierarchies. These changes affected both material livelihoods and the symbolic realm, which included taste. Java became one of the most productive sugar-producing areas in the world, but most of the sugar was still an export-oriented good that many of the Javanese workers who made it couldn't get. Matsuyama (2009) says that cane sugar was not yet a common part of native diets during the colonial period. This is different from its later role after independence (post-1945), when domestic consumption rose a lot (Matsuyama, 2009, pp. 260-262). The sugar that sweetened Javanese diets after 1870 was more than just a matter of consumer preference or cultural continuity; it was ingrained in the coercive logic of the empire. Friedmann and McMichael's (1989) food regime theory posits that colonial commodities, like sugar, transcended mere economic goods, functioning as "vehicles of rule" that entrenched class domination in quotidian consumption.

## 5.2. The Illusion of Freedom: Liberalization and the Expansion of Java's Sugar Economy (1870–1900s)

As discussed above, the Agrarian Law and Sugar Law were put into effect in the 1900s, which changed colonial export infrastructure and made land and labor laws more open. This led to a rapid growth of Java's sugar economy into the early twentieth century, which drew in private investment and became more mechanized and by the 1910s, the output had changed in terms of both its shape and where it was going. "Factory white" sugar, which had already been refined and was safe to eat, made up most of the exports, with more than 3 million metric tons shipped in 1930. However, raw or semi-refined sugar was also made earlier in the era for processing in other countries (Knight, 2013, p. 217). At first, most of Java's sugar went to Europe and the Netherlands, but starting in the early 1900s, things changed. Java started to supply a bigger part of the Asian market, especially British India, China, and Japan (Knight, 2013, p. 57).

In the 1920s, rising regional demand, especially from Japan's growing industrial base, protective tariffs in Europe, and nationalist economic policies in Asian republics all played a role in this change. As trade patterns changed, Java's sugar was slowly pushed out of Western markets, this showed a major change in the flow of global commodities, which put Java more firmly in an intra-Asian economic circuit. But even though Java's output was growing in the late 1920s, its market share did not grow along with its exports to East Asia, the Javanese farmers also benefited for a short time from Chinese sugar production falling due to political unrest and bad harvests in the early 1920s (Knight, 2013, p. 214). However, as nationalist governments in China, Japan, and British India pushed for self-sufficiency by giving domestic sugar producers subsidies and protective tariffs, Java's power waned. For instance, the 1928–1930 talks in China gave the government more freedom to set its own tariffs, which mean that it could charge higher taxes on imports. In Japan and its colony Formosa (now Taiwan), on the other hand, state-led industrial plans favored local sugar plantations. The same thing happened in British India, where protectionist laws were put in place to meet domestic demand and the sugar industry thrived. The decline of Java's role in the global sugar industry was caused by falling prices and too much sugar, but it was also made worse by the rise of protectionist and nationalist responses in Asia (Knight, 2013, pp. 214–219).

Fig 2.



Source: (Knight, 2013, p. 241)

The graph above (Figure 2) shows that sugar production reached its highest point in the late 1920s to early 1930s, but it didn't last long. After 1932, production dropped by a huge 83% to 500,000 tons. This was mostly because of the Great Depression, which caused prices of many goods, including sugar, to drop sharply around the world. When sugar was too plentiful and revenues were low, the colonial government stepped in. They stopped letting things happen on their own and started the *Nederlandsch-Indische Vereeniging Voor de Afzet van Suiker* (NIVAS), a central marketing authority that was in charge of exports and keeping an eye on sugar cane farming. Even with these steps, the industry shrank a lot: the amount of land used for sugarcane went from 200,000 hectares in 1931 to only 30,000 by 1935, and the amount of sugarcane produced went from about 3 million tons to 500,000 tons. By 1937, things had gotten a little better, and production had risen to 1.4 million tons. But the industry was still weak and could be hurt by things that happened outside of it (Tegegn & Dhont, 2021, p. 8). The weak recovery didn't last long. The sugar economy was greatly affected by World War II and the Japanese occupation of Indonesia from 1942 to 1945. By the time of Indonesia's National Revolution (1945–1949), a lot of the sugar infrastructure had fallen apart because many mills had been shut down, destroyed, or turned into military bases.

After the war, Java's sugar production never got back to where it was before. Exports were still below 212,000 tons in 1954, which was not even close to where they had been before the war. Some mills were still open, but they mostly made things for people in their own country. They mostly sold molasses. The war and revolution had a big effect on the economy and the people, making it hard for the industry to compete with other countries (Tegegn & Dhont, 2021, p. 7). In the late 1950s, Indonesia's new republican government took over Dutch capital, which changed who owned it. However, this didn't do much to stop the industry from going downhill. After nationalization, state-led management had to deal with ongoing structural problems, lack of investment, and a lack of technical know-how. There were only 55 working mills left by 1970, down from 182 in 1910. This is a sign that the industry was going down. At the same time, the country's need for sugar grew faster than what could be made in Java, which meant that more sugar had to be brought in from other countries. By the middle of the 20th century, Taiwan had become a major sugar supplier to Indonesia, filling the gap left by Java's lower capacity. Taiwan has been making sugar for a long time. Java's sugar economy was no longer competitive on the global stage, and its role in international trade had changed completely from being a major global sugar exporter to becoming a greatly reduced domestically-oriented industry (Tegegn & Dhont, 2021, p. 7).

### **5.3. The Great Downfall of Sugar's Production After 1930 and the Rising Demand of Imported Sugar**

The decline of Java's sugar industry after independence was not only due to poor economic management or outdated technology, but also because the colonial infrastructure that had been built up did not fit with the new nation's political and economic goals. This condition is worsened due to sugar, which once a big part of the Dutch imperial economy was no longer important around the world by the middle of the twentieth century. However, the colonial setup that has been instilled initially created both a social and geographic division of labor, bringing Java into the global sugar economy. Additionally, investments in colonial

infrastructure, like roads, railroads, and centralized milling, made Java more efficient and a high-output producer. But this model's inherent weakness became clear in the 20th century, when The Great Depression, the Japanese colonization, the Indonesian revolution, and finally decolonization changed not only trade routes but also the very foundations of sugar's political economy (Tegegn & Dhont, 2021).

Tegegn and Dhont's (2021) study builds on Knight's global macroeconomic analysis by offering a more comprehensive political-institutional viewpoint. They show how the Japanese colonization (1942–1945) made the collapse worse by destroying a lot of infrastructure and changing the direction of agricultural output, especially rice, to meet the needs of the Japanese military. After the colonization, the Indonesian nationalist movement intentionally damaged colonial infrastructure, such as railroads, irrigation systems, and sugar mills, which led to Indonesia getting a broken industry after independence worsened by the Dutch colonial capital being gone and engineers leaving the country. At the same time the country didn't have enough institutional capacity to replace them, so there goes the decline. Indonesia tried to rebound from this condition by the conversion of foreign-owned private plantations into state-owned businesses, known as PPN (Perusahaan Perkebunan Negara/State Plantation Company), as a step toward nationalization. However, technical problems, a lack of investment, and political instability made it hard to fully rehabilitate the plantations. By the 1950s and 1960s, sugar production had dropped to a small fraction of its peak in the late 1920s and early 1930s (Tegegn and Dhont, 2021, pp. 10–14).<sup>1</sup>

**Table 1.**

No.	Description	1910	1920	1930	1940	1952	1960	1965	1970
1	Number of factories	182	183	179	118	50	55	55	55
2	Production (million ton.)	1.3	1.5	2.9	1.6	0.5	0.7	0.8	0.7
3	Import (million ton.)	-	-	-	-	-	-	0.1	0.1

Source: Adopted from (Yustika 2015, p. 369)

But even though Indonesia's sugar production fell, its sugar consumption rose (Yustika, 2015, p. 369). The data in Table 1 shows that the need for imported sugar grew in

<sup>1</sup> Bosma (2013, pp. 78-81) adds to this critical trajectory by claiming that Java's sugar economy during the colonial period had already reached a point of internal contradiction by the early twentieth century. He cites labor unrest, peasant resistance, and growing scrutiny of the Cultivation System as evidence that the Dutch empire's control over sugar was always tenuous. Bosma emphasizes that colonial sugar production required constant labor discipline and land coercion, and that when those mechanisms failed, whether due to war, nationalism, or global price shocks, the entire system collapsed.

the years after the neoliberalization era. Indonesia transitioned from being a net exporter to becoming one of the largest sugar importers globally in the 1990s and 2000s (Tegegn and Dhont, 2021, p. 14). The disparity between falling production and steady or rising consumption requires further investigation. Matsuyama (2009) persuasively contends that taste is a social construct influenced by power, infrastructure, and economic systems, rather than a fixed representation of ethnic identity or civilizational heritage. According to *ibid.* (2009, p. 249), dietary cultures in Southeast Asia have historically evolved alongside the ascendance and decline of empires, state institutions, and market dynamics.

The colonial sugar economy in Java created the sensory basis for sweet taste preferences, especially among Javanese communities in Central Java, where mills and plantations were concentrated, such as in the special Region of Yogyakarta. Sugar infrastructure flooded these areas, making refined sugar a normal part of everyday cooking instead of a luxury. After independence, the colonial mills weren't working at full capacity anymore, but the taste infrastructures stayed in place. Even though there was no local production, people still liked sweet things. The neoliberal shift during Suharto's New Order administration intensified this phenomenon. With the market open to foreign investment and a focus on importing and distributing food instead of becoming self-sufficient in sugar, sweetened products flooded the domestic market. These included mass-produced drinks like Teh Botol Sosro from Slawi, Central Java, which started being made in factories in 1940 (Sinar Sosro, 2018). The IMF's structural adjustment packages in the late 1980s and early 1990s made trade more open and lowered tariffs on food imports. This let global sugar suppliers into the market, changing and strengthening the sugar habit (Tegegn and Dhont, 2021, p. 15).

## Chapter 6

### The Enduring Legacy of Sweetness: Continuity of Sugar Consumption in Postcolonial Java

#### 6.1. Regional Patterns of Sugar Expenditure in Java: Evidence from the 1993 Indonesian Family Life Survey (IFLS)

While the colonial commodity infrastructure officially ended with Indonesia's independence, its sensory and dietary legacies are still deeply embedded in daily life. The regional taste divisions that emerged during the colonization was not simply erased by political transition, but rather, it evolved in the postcolonial state as a result of economic adaptation, class stratification, and material availability processes. In this context, it is critical to ask how these historical infrastructures influenced household consumption patterns even in the decades after independence. To answer this, we should look to empirical data from the early 1990s, when Indonesia's food survey records provide a telling glimpse into the long-lasting impact of colonial taste geographies.

**Table 2. Total Household Expenses for Sugary Products' Consumption/Week in Java's Province, 1993**

Types of Staple Foods Listed	Province in which HH Lives				
	Special Capital Region of Jakarta	West Java	Central Java	Special Region of Yogyakarta	East Java
AA Granulated sugar	2,227,783	1,068,840	1,905,718	1,595,449	1,147,945
CA Tea	1,233,768	1,270,754	242,318	166,645	2,094,671
EA Soft drinks (Fanta, Sprite, etc.)	1,422,948	224,500	1,095,848	67,100	90,875
W Javanese (brown) sugar	120,675	437,075	1,327,799	236,400	170,575
<b>Total consumption of sugars (white +brown sugar)</b>	<b>2,348,458</b>	<b>1,505,915</b>	<b>3,233,517</b>	<b>1,831,849</b>	<b>1,318,520</b>
<b>Households total annual income</b>	<b>239,544,000</b>	<b>1,273,620,000</b>	<b>3,044,172,000</b>	<b>1,213,080,000</b>	<b>3,654,720,000</b>

Source: (Indonesia Family Life Survey, 1993)

The 1993 Indonesian Family Life Survey (IFLS) was employed to experimentally investigate these enduring trends by providing weekly family food expenditures from provinces in Java. The findings derived from a balanced sample of 36 households per province that indicate considerable geographical variations in the volume and type of sugary food intake. This data indicates more than just how much money people spent on food, yet it also shows what people like to buy and consume. These patterns reveal that the provinces have significantly diverse eating habits. For example,, Central java, Yogyakarta, and East Java (provinces where the Javanese live) bought a higher amount for refined sugar (marked AA) than households in West Java (where the Sundanese live). The overall numbers were 1,905,718 rupiah; 1,595,449 rupiah; and 1,147,945 rupiah. West Java, on the other hand, bought 1,068,840 rupiah for less refined sugar. In Central Java, where they paid 1,327,799 rupiah. The total cost for Javanese brown sugar is almost three times higher in Central Java rather than in West Java where they spent only 437,075 rupiah. Furthermore, this pattern of sweetness also applies to soft drinks (EA), which is unique to note. In Central Java, people drank almost five times as many as in West Java, with 1,095,848 units compared to 224,500 units. Central Java, which is home to Javanese communities, spent the most on sugar each week, 3.23 million rupiah. This included both white and Javanese brown sugar. The data shows that sugar made up 89% of this basket in Yogyakarta and 71% of it in Central Java. In Jakarta, soft drinks made up 28% of the basket, but in West Java, tea made up a much larger 42%.

These regional compositions were significantly influenced by infrastructural pathways, rather than solely by cultural factors. For instance, being close to sugar refineries and tea plantations, being exposed to urban marketing, and the history of how prices were set all had an effect on what drinks were sweetened and sipped. But these taste zones don't seem to fit with the trends in income. Yogyakarta's reported income was lower (1.21 million) than West Java's (1.27 million), but it spent a lot more of its budget on granulated sugar. This difference shows that buying power isn't the only thing that affects what people eat. A long time ago, before colonialism, the people of Java already liked sweet things. For the Javanese people, brown sugar (gula Jawa) is more than just a low-calorie sweetener; it is also a part of hospitality, history, and identity rituals in Central Java (Fadhillah, 2024). Moreover, this preference is likely to be bolstered by the accessibility of resources and the condition of the infrastructure (Popkin, 2015).

According to Mintz (1985, p. 154), "historically influenced" social arrangements affect how people get to and think about certain meals. He contends that the significance of food, including sweetness, derive from the historical processes of its production and reproduction over time. The long-standing demand for Javanese brown sugar in Central Java indicates a profound cultural affinity for sweetness, which was utilized in local cuisine, familial economies, and religious ceremonies prior to colonial intervention. Mintz (1985, pp. 154, 158) argues that this preference is not solely biological but instead, food meanings, such as sweetness as comfort, are taught and altered by historical processes of production and reproduction. Therefore, sugar industrialization changed these preferences instead of getting rid of them, which made white sugar an export good and Java a manufacturing center, with mills and railroads mostly in Central and East Java (Cahyono, 2005). As a result, t his

infrastructure made it easier for Javanese people to get refined sugar, which changed its meaning from a luxury to a family necessity.

So, the sweet taste in Javanese cuisines this days is best understood as a complex phenomenon in which the colonial political economy redirected and strengthened long-standing cultural preferences, making sweetness both a cultural continuity and a colonial legacy. These patterns got even stronger after colonialism ended. In the 1980s and 1990s, structural adjustment programs and liberalization reforms pushed for the liberalization of food imports while keeping local sugar subsidies and price controls in place. Because of this, a lot of people could afford and wanted sugar (McMichael, 2009). According to the data from Jakarta, this province spends a lot more on soft drinks (1.42 million rupiah) than West Java (224,500 rupiah). This shows that the packaged-beverage business is starting to grow in the city. This is probably because the city has a lot of people, a lot of marketing, and people's class goals are changing. This trend is a sign of a bigger change in Indonesia's diet that will happen in the 2000s, when people will start eating more manufactured and branded foods instead of cooking their own meals (Popkin et al., 2020). People in Jakarta are moving away from sugary drinks and toward soft drinks. This shows that changes in nutrition are caused by urban infrastructure, not cultural preferences.

This trend of high sugar consumption despite low incomes highlights a core tenet of food-regime theory: consumption is shaped not only by personal preferences or financial resources but also by the visibility, accessibility, and normalization perpetuated by the food system (Friedmann and McMichael, 1989; Guthman, 2011). From this point of view, Java's regional sugar preferences show how taste, access, and infrastructure can all work together, similar to Guthman's (2011) idea of "the socio-spatial production of diet," through the interaction of political and economic factors. These behaviors are not only habitual or cultural; they are also affected by long-lasting supply systems. As in Britain, the demand for sugars grew as they became more widely available and the amount of sugar produced fell. Sugar became a necessity that most households needed to have in their kitchens. Even though people in those less fortunate communities didn't have much money to spend, they kept buying more and more, and the amount of sugar coming in from other countries kept going up (Mintz, 1985, p. 167).

## **6.2. From Colonial Zoning to Everyday Taste: The Enduring Divergence of Javanese and Sundanese Preferences**

The information from IFLS 1993 shows that households in West Java spent a lot more on tea than those in Central Java. This is another big difference in diet between the two regions. In West Java, people spend almost five times as much on tea as they do in Central Java: 1,270,754 units compared to 242,318 units. This difference clearly affects more than just food choices; it is a postcolonial echo of how resources were distributed during colonial times. This difference is because of how labor unions, access to goods, and the location of plantations and mills affected how people developed their tastes. This big difference in taste is linked to the historical production zones that were set up during the Dutch Colonial Period, especially after the Agrarische Wet, or "liberalization" of land, was put into effect in 1870 and after. Central Java continued to be the main place where sugar was made, but West Java

became more focused on growing tea, especially by small farmers who were encouraged by both European and later native businesses (Alatas & Sulong, 2020, p. 556). This change in the tea industry's growth in West Java between 1875 and 1941 may have been caused by environmental and policy factors. The colder highlands and steep terrain of West Java, like Priangan, were not good for growing sugarcane but were perfect for growing tea. The West didn't have the flat, irrigable land or the heavy mill infrastructure that sugarcane needed. After land rules were relaxed in 1870, Dutch colonial efforts to promote plantation capitalism in Java found tea to be a different crop to export.

In Central Java, big estates and industrial sugar production were the norm, while in West Java, on the other hand, tea thrived because native people grew it on small plots. The Central Java sugar grew exponentially was due to colonial policies, such as giving native planters access to loans, technical help, and easier exports, pushed this growth along aggressively, especially after European tea estates stopped growing after World War I (Alatas & Sulong, 2020, p. 558-559). Because of these tea-producing areas, Sundanese communities, which had a lot of tea, may have been able to drink fresher, unsweetened tea from local plantations. On the other hand, Javanese communities, which were near sugar mills, got used to sweetening even low-quality tea. To support the underlying argument that Javanese inclinations towards sweetness are historically contingent rather than solely cultural, it is essential to underscore the material infrastructure that facilitates the emergence and endurance of such preferences.

The reorganization of agro-commodity geographies had a strong effect on how regular people saw, got, and used sugar. In places where sugar was made, processed, stored, and moved, it became an important part of the sensory environment. People who lived and worked near sugarcane fields and mills were much more likely to use refined sugar in their cooking every day, not as a treat but as a need. These patterns of availability and abundance eventually became cultural habits that shaped what "normal" food tasted like, what "hospitality" meant, and what "tradition" came to mean (Mintz, 1985, p. 183). The sugarcane production data for Java below shows that Central and East Java consistently produced more sugar than West Java over important decades. This made them not only colonial economic engines but also sensory frontlines in the development of the Javanese sweet palate.

**Table 3. Sugar Cane Production in Java 1893-1903**

RESIDENCIES.	1902/3		1903/4		1904/5		1905/6	
	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.
<b>EAST JAVA</b>								
Bezoeki .. ..	1126	38.566	1106	38.339	1056	36.606	1072	37.160
Pasoeroean .. ..	971	33.660	1095	37.959	1098	38.063	1093	37.889
Soerabaja .. ..	1033	35.809	1137	39.414	1097	38.028	1077	37.334
Kediri .. ..	1166	40.419	1203	41.702	1189	41.217	1202	41.667
Madioen .. ..	929	32.204	924	32.031	1027	35.601	996	34.526
Semarang .. ..	980	33.972	1067	36.988	985	34.156	1039	36.017
Solo .. ..	988	34.250	1088	37.716	1060	36.745	1079	37.403
Djokdja .. ..	1043	36.156	1112	38.547	1129	39.137	1142	39.587
Banjoemas .. ..	1239	42.950	995	34.492	1042	36.121	1172	40.627
Bagelen .. ..								
Pekalongan .. ..	1043	36.156	1109	38.443	1164	40.350	1104	38.270
Cheribon .. ..	959	33.244	886	30.713	1010	35.012	994	34.457
East Java* .. ..	1050	36.398	1114	38.617	1106	38.339	1102	38.200
Middle Java .. ..	1034	35.844	1075	37.265	1052	36.467	1099	38.097
West Java .. ..	1009	34.977	1018	35.290	1105	38.305	1058	36.676
Average .. ..	1039	36.017	1089	37.750	1092	37.854	1094	37.924

\* The division of Java into west, middle and east Java does not tally with the one given on Page Solo, Djokdja, Bagelen, and Banjoemas to Middle ; and Madioen, Kediri, Soerabaja, Pasoeroean and were Japara with Semarang, and Tegal with Pekalongan ; that is why since 1900 the production of the

RESIDENCIES.	1893/4.		1894/5.		1895/6.		1896/7.	
	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.	Piculs per Bouw.	Tons of 2,240 lbs. per acre.
<b>EAST JAVA</b>								
Bezoeki .. ..	824	28.564	900	31.198	831	28.807	934	32.377
Probolinggo .. ..	832	28.941	903	31.225	734	25.444	861	9.854
Pasoeroean .. ..	666	23.187	723	25.063	669	23.191	706	24.473
Soerabaja .. ..	857	29.718	897	31.095	785	27.213	883	30.609
Kediri .. ..	848	29.397	1037	35.948	884	30.649	957	33.175
Madioen .. ..	664	23.018	821	28.460	701	24.300	781	27.074
Rembang .. ..	—	—	591	20.487	229	7.962	372	13.890
Japara .. ..	688	23.850	858	29.743	743	25.756	815	28.253
Semarang .. ..	619	21.458	798	27.663	639	22.151	752	26.068
Solo .. ..	705	24.439	835	28.946	787	27.282	845	29.293
Djokdja .. ..	827	28.668	986	34.180	946	32.793	1030	35.705
Banjoemas .. ..	593	20.556	885	30.679	788	27.317	1016	35.220
Bagelen .. ..								
Pekalongan .. ..	870	30.158	912	31.874	815	28.253	952	33.001
Tegal .. ..	840	29.119	962	33.357	811	28.114	875	30.332
Cheribon .. ..	694	24.058	813	23.183	771	26.727	800	27.732
East Java* .. ..	808	28.010	891	30.887	775	26.866	868	30.097
Middle Java .. ..	721	24.994	878	30.436	804	27.871	903	31.302
West Java .. ..	788	27.317	895	31.026	801	27.767	858	29.743
Average .. ..	782	27.108	888	30.783	789	27.351	875	30.332

Source: (Geerligs and Hendrik, 1912)

Table 3 (Geerligs and Hendrik, 1912) shows how important Central Java (Middle) and East Java were to the colonial sugar industry from 1893 to 1906. All three areas—West, Central (which includes the special region of Yogyakarta or Djokja), and East Java—grew sugar, but the eastern regions produced much more and more consistently than West Java. This is clear from the average number of tons of sugar made per acre and the average number of piculs harvested per bouw over the course of ten years. For instance, in 1893/4, West Java's average yield was 27,317 tons per acre, while East Java's was 28,010 tons per acre and

Middle Java's was 24,994 tons per acre. The average yield in East Java had gone up to 38,200 by 1905/6, and the average yield in Middle Java had gone up to 38,097. This was much higher than the average yield in West Java, which was 36,676. For most of the years shown in the table, this trend holds true: East and Middle Java regularly had more output than West Java. This is important because it shows both the success of farming and the spending on colonial infrastructure.

A lot of colonial activity occurred in East Java which resulted in a better irrigation systems, bigger farms, and worse working conditions. All of this made it possible for factories to keep making a high volume. Many people often think of this gap in taste preference as a type of essentialist cultural difference, however as Matsuyama (2009, p. 294) contests that taste exceeds a simply passive reflection of cultural identity, but it represents a governance technology shaped by political economy and commodity infrastructure. What seems like random choices by consumers is actually a postcolonial echo of how resources were taken from colonies and how land was divided up. Colonial practices did more than merely divide up crops, but they also created long lasting sensory patterns. One of the most evident contrasts between how modern Javanese and Sundanese people drink tea is how they enjoy it, for instance, the Javanese like their tea sweetened, while the Sundanese in West Java prefer their tea drunk without sugar. This habit is reflected in the way most traditional restaurants serve their cuisine. In line with this statement, Oza Sudewo, a specialist on tea philosopher, also noted that this difference goes back to Dutch colonial agricultural strategy when the Dutch implemented policy that made West Java to be the centre of tea cultivation and Central Java as the centre of sugar production. It is logical to think that people in west Java, which has an abundance of tea plantations, became used to drinking tea since they could receive fresher and better quality leaves nearby since they had easier access to achieve it. At the same time, residents in the Javanese regions which are surrounded by sugar plantations tend to add sugar to their tea because they have easier access to sugar rather than tea. Another reason for this is also because the tea they received was not as good and fresh like in West Java due to the logistical distance.

These material conditions therefore caused various taste norms to develop in each place over time, and they still exist until now. The historical evidence of the foundation of the sweet tea company Teh Botol Sosro, which is well-known throughout Indonesia, especially in Java, is another crucial piece of evidence that is still relevant today. The company was established in Slawi, Central Java, that was one of the sugar producing regions in Java. Their tea was very popular among Indonesian populations, with most Javanese people at the time, which suggests that they liked it. This business' growth and continuous existence suggest that the preference of sweetness is passed down from one generation to the next, especially among Javanese people (Sinar Sosro, 2018). This example is notable to be discussed because this company does not use Javanese brown sugar. Instead, it employs white sugar that has been refined in factories, which is a product from the colonial past created in sugar mills that have been modernized. This is a valuable example of how the preference for sweet taste persisted even though the form of what they usually consume was transformed. The shift to refined sugar, on other hand, reveals how industrial capitalism modified the meaning of sweetness while preserving its symbolic value.

Furthermore, Mintz' (1985, pp. 99-103) understanding of sugar's global consumption in this case, is very important. Similar to what happened in Britain, sugar was a substitute for care and energy, but in Java, it was a way to keep tradition alive, keeping the shape of cultural sweetness even as its substance transformed into a new form. Therefore, we can see that there were two changes; first, how sugar and tea were cultivated in Java, and second, how people reacted to them. This is not merely a cultural difference, but it is also a long standing connection between the colonial economy and symbolic heritage. Sugar and sweetness used to be based on local mythology and symbolic value, but today it is a part of modern, widespread, and daily consumption. Thus, this creates a picture of postcolonial taste that combines historic customs, colonial exploitation, and modern capitalism.

So, we can see that there were two changes: first, the way sugar and tea were made across Java, and second, the way people reacted to them. This is not only a cultural difference; it is also a long-standing relationship between the colonial economy and symbolic tradition. People's love of sweetened tea shows how Javanese sweetness, which used to be based on local cosmology and palm sugar, has changed with the times and is now part of modern urban life. In doing so, it paints a picture of postcolonial taste that mixes old rituals, colonial exploitation, and modern consumer capitalism.

## Chapter 7

### The Bitter Aftertaste of Sweetness: Sugar, Habitual Consumption, and Diabetes in Postcolonial Java

As previously mentioned, the historical embeddedness of sweet taste preference in Java, especially in central Java and the Special Region of Yogyakarta is fundamentally associated with colonial agro-economic zoning which disproportionately allocated sugarcane production in Central and East Java, while West Java transitioned to become the centre of tea plantation in the post-1870 era. This uneven distribution of agricultural infrastructure had a long term effect on how people in certain regions have a different pattern in their consumption which is reflected from their spending on foods. For instance, as the data from IFLS 1993 showed that households in the Capital Region of Jakarta, Central Java, Special Region of Yogyakarta, and East Java consistently spent more on sugar and sweetened products than those in West Java. These tendencies reflect an explanation of how the accessibility of commodities infrastructure, state provisioning, and the market influence people's preferences in a structural way not only a cultural way.

After the downfall of global sugar prices which made sugar extremely cheap, sugar that was once a luxurious commodity was eventually normalized in daily consumption across classes, becoming integrated into routines such as sweetened tea drinking and festive dishes. Following independence, even as sugar output fell due to infrastructure damage and economic shifts, national sugar consumption increased and required more imports (Yustika, 2015, p. 369). This disparity between diminishing supply and persisting demand suggests that the colonial construction of taste had long-lasting consequences, which were exacerbated by neoliberal globalization.

Far from being stuck in the past, these dietary patterns have evolved and reinforced in response to a changing political-economic framework, resulting in a nutritional trajectory that has now aligned with the concerning increasing rates of diabetes across Indonesia.

**Table 4. Total Household Expenses for Sugary Products' Consumption/Week in Java's Province, 2014**

Types of Staple Foods Listed	Code of Province in Which HHL D Lives				
	Special Capital Region of Jakarta	West Java	Central Java	Special Region of Yogyakarta	East Java
AA Granulated sugar	6,477,600	11,123,750	15,536,600	7,794,950	20,347,600
CA Tea	2,577,000	4,917,850	4,858,750	2,739,800	3,190,150
EA Soft drinks	6,479,000	11,378,050	3,954,550	3,753,000	5,191,900

(Fanta, Sprite, etc.)					
<b>W</b> Javanese (brown) sugar	<b>1,249,500</b>	<b>5,876,350</b>	<b>6,949,820</b>	<b>3,382,600</b>	<b>4,044,000</b>
Total consumption of sugars (white+brown )	<b>7,727,100</b>	<b>17,000,100</b>	<b>22,486,420</b>	<b>11,177,550</b>	<b>24,391,600</b>
<b>Households total annual income</b>	<b>833,564,178,000</b>	<b>1,463,468,261,600</b>	<b>895,465,681,000</b>	<b>398,954,101,275</b>	<b>1,027,638,455,648</b>

Source: (Indonesia Family Life Survey, 2014)

As we can see, twenty years after the early neoliberalization in 1993, the total expenditure for sugars and sugary products of the same households in each province in Java, namely in the capital city of Jakarta, Central Java, Special Region of Yogyakarta, East Java, and West Java remain significantly increasing and still leading. This survey exposes that people in Java consume sugar in very different ways that is very likely influenced by their geographical closeness to certain commodities, in this case refined sugar. These trends are more than just numbers but they are a long standing pattern of dietary traditions that show how people in different regions eat and how politics and market infrastructure change how people buy things.

Firstly, based on table 4, it is shown that East Java had the highest total weekly household sugar spending at 24,391,600 rupiah. This amount was more than seven times from what it was in 1993, when it was 1,318,500 rupiah. Meanwhile, refined white sugar alone made up 20,347,600 rupiah, which was the most in all provinces. This increase is in line with East Java's long standing role as Indonesia's main sugar producing hub, which has made it easy for people to get cheaper sugar. Refined sugar is probably used in tea, preserved foods, and snacks at home because it is cheap and easy to find due to the approximate privilege. Therefore, this data shows a direct link between the political and economic system that was set up on purpose during the colonial period and the way people in the area around this system used to buy or consume certain things (Matsuyama, 2009).

Secondly, Central Java also has the second highest total household spending on both refined white sugar and traditional brown sugar (*gula Jawa*), with around 15.5 million and 6.9 million rupiah, respectively. This survey exposes not only a desire for sweetness but also a sustained attraction for sugar as a culinary foundation. As discussed, sugar was more than only a colonial good in central Java and Yogyakarta, but it already became an important aspect of cultural life since it was so closely tied to Javanese court traditions. In Central Java and Yogyakarta, sweetness came to mean refinement, harmony, and moral order. As we discussed earlier, traditional dishes in Central Java and Yogyakarta were more than just food,

but they had a specific meaning and were typically served at ceremonies or as a gesture of welcome. The aristocratic rules helped sugar become a part of both ordinary and ceremonial tastes. However, the increasing use of white sugar as the product of the colonial sugar economy, reflected an influence and reinforcement of Central Javanese and Yogyakarta communities' interconnectedness to sweet taste preference, even in different forms of sugar. This close connection to culture that is also reinforced by the political-economic structure is the reason why sugar consumption is very common in certain places, like in Java (Fadhillah, 2024).

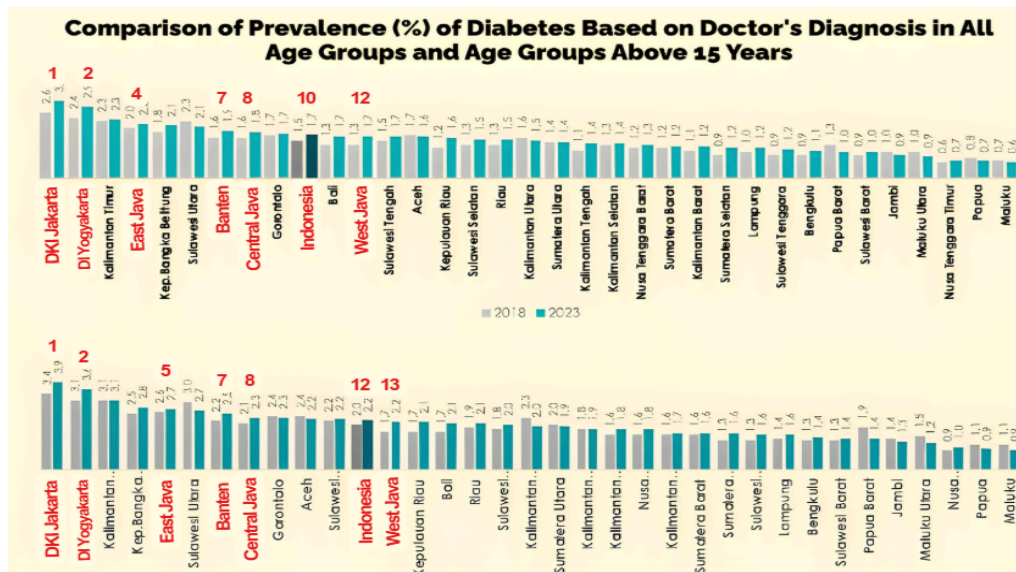
These examples demonstrate that colonial political-economic frameworks facilitated access to refined sugar, but they did not initiate the cultural embeddedness of sweet taste preference in Java. Instead, they contributed as opposed to reinforcements, adding to and improving already existing culinary logics, ecological adaptations, and symbolic meaning to sugar. Therefore, because of this reinforcement, refined sugar slowly became a common and popular commodity in both homes and stores. The Javanese people changed their inherited tastes (Javanese brown sugar consumption) to fit new styles (refined sugar), but they still kept sweetness as the main aesthetic. As reflected in today's consumption, they use modern sugar in both everyday and ceremonial ways. In this way, taste is more than only a personal choice, but it is shaped and maintained by bigger networks of production and reproduction processes. Through these provisioning logistics in colonial industrialization, sweetness became a bigger part of everyday life by shifting the consumption patterns that were formerly uncommon or symbolic into routine items (Guthman, 2002, p. 298).

Thirdly, as it is shown on the table, West Java has a varied consumption profile which makes it unique. The overall household sugar expenditure is 17,000,100 rupiah, but the most notable characteristic is the domination of soft drink spending, which totals 11,378,050 rupiah, the most in Java. Refined sugar consumption (11,123,750 rupiah) is significant, whereas brown sugar (5,876,350 rupiah) is secondary. This reflects a structural shift in how sweetness is eaten, sugar is increasingly consumed via commercial and branded drinks. This situation is understandable given that much of the food and beverage industry was constructed in the urban and peri-urban districts surrounding Jakarta to meet the majority of demand in large cities such as Jakarta. West Java's industrial complexes are well-known for their enormous enterprises, which are owned by multiple food and beverages companies such as Coca Cola which produce the one of the most popular sugar-dense beverages (Coca Cola, 2019). Furthermore, the company benefits from the facility's closeness to Jakarta, conducive for efficient logistics. In addition, based on historical patterns, one might expect that the accessibility to what commodities surround people would have a significant impact on consumption habits in a particular area. Proximity to production sources decreases operational expenses and allows for product distribution to neighboring stores with lower pricing, and thus leading to local availability and uptake of those products (Ellison et al., 2007, pp. 1200-1201).

According to Popkin (2015), the shift to these ultra-processed beverages refers to the “nutrition transition” which means moving away from home-made sweets or naturally sweetened meals and toward high processed drinks with a high content of added sugars. In this era, sugar is no longer a part of traditional taste structures or symbolic way of cooking. Instead, it is a part of a bigger system of convenience, advertising, and habitual purchase. As

a result, soft drinks now represent the industrialization of sweetness, taking it out of regional taste inheritance and putting it into the habits of mass market consumers.

**Fig 3. Diabetes Prevalence Across 34 Provinces in Indonesia 2018 & 2023**



Source: (Ministry of Health Indonesia, 2023, pp. 74-76)

Sugar consumption in Indonesia has steadily increased year after year since the New Order period (after 1966-1998). Furthermore, Java remains Indonesia's most productive sugarcane producer based on the data from 2010-2016 (NSC, 2017). However, due to rapid population growth and increased demand, the Indonesian sugar import continues to increase (Yunitasari et al., 2017). The data from Directorate General of Plantation (2011), shows that the volume of sugar imports has increased 17.96% from 1998 to 2015. Furthermore, the increase of sugar imports coincides with an annual increase in diabetes prevalence. According to data from a national health survey by the Ministry of Health Indonesia (2023, pp. 74-76), there is a distinct increase between 2018 and 2023, with the diabetes prevalence (among groups above 15 years old) is disproportionately concentrated in Java, with the capital city of Jakarta in the first position (3.9%), Special Region of Yogyakarta in the second (3.6%), East Java in the fifth (2.7%), Banten in the seventh (2.5%), Central Java in the eighth (2.3%), and West Java in the thirteenth (2.2%), outperforming the national average of national diabetes prevalence (2.2%).

Even though diabetes is a complex illness impacted by genetics, physical activity, and other dietary habits, high sugar consumption is commonly regarded as a significant risk factor. Therefore it is important to note that indeed high sugar consumption does not have a direct causal link, but rather highlights the role of sugar-rich diets in shaping long term impacts towards diabetes (Ramadhani et al., 2018). In his era, sweetness became routine and readily accessible and led toward overconsumption of sugars that is desired by the majority of people, not because they are unaware of the downside effects but because sugar already tasted normal and is hard to be detached due to the normalization of it in everyday consumption. This normalization along with increased access and industrial supply may lead to health concerns such as diabetes as indicators of a larger transformation in taste, availability, and

food systems that is established passed down generations. The growth in diabetes in Java is more than a health concern and is very likely happening due the embedded integration of sugar into the foundation of daily consumption from both the cultures and the political economic structure that shaped it.

Therefore, this transformation could not be understood as a coincidence. As Otero (2018, p. 412) has claimed that food insecurity and obesity must be analyzed not only as biological but also as deeply political phenomena that resulted from unequal power distribution over food systems. In this case, the Javanese sweet palate which was formerly affected by colonial sugar infrastructure, is now part of a larger neoliberal framework in which corporations and the global food systems control food availability and taste production. In addition, it is in line with what McMichael's (2009, p. 144) refers to as the "corporate food regime," in which transnational capital promotes homogeneous diets for profit rather for proper consumption. In Indonesia, this is proven by the proliferation of low-cost and caloric dense foods sold to individuals from various socioeconomic backgrounds which typically form as modern comfort and desirable consumption.

These trends somehow reflect the persistence of institutional violence from the colonial regime where the Dutch implemented the forced cultivation system which formerly enforced monocrop sugar production for European markets, but the difference, today's global food systems established modern food chains that feed humans too much sugar and sometimes with insufficient supervision by regulators due to the orientation for the profit. As Alatas and Sulong (2021, p. 80) show, the legacy of zoning in colonial Java resulted in not only agrarian inequality, but also spatial consumption patterns that persist today. While the demand for sweetness may have inherited cultural roots, it was systematically enhanced by colonial infrastructure and later reinforced by neoliberal market logic. Additionally, Popkin and Reardon (2018, p. 47) note that the nutritional transition is not about choices made in a vacuum, yet it is shaped by affordability, marketing, and built environments.

## **Chapter 8**

### **Conclusions**

This research has explored how sugar consumption in Java developed as a fluid routine that first embedded itself in culture but continually changed by evolving political and economic institutions that reinforced the preference for sweet taste preference. Throughout the precolonial, colonial, and postcolonial centuries, sweetness has remained a consistent symbol of taste and identity, even though there is a shift in terms of how they valued and perceived sweetness and sugar. Culturally, sugar had a special meaning in Javanese culture which represents harmony, refinement, and moral order in both ceremonial and ordinary hospitality that resulted in the characteristic of their cuisines that tends to use sugars since the pre colonial regime. Then, the colonial regime came into play and implemented an industrialization of refined sugar which made sugar moved from merely elite consumption into widespread consumption. The change of this politics and economic settings made refined sugar that started as a symbol of power became a common consumption which integrated into tea, snacks, and hospitality across classes. This process shows that taste was not just a way to express one's culture, but also a way to express authority and infrastructure.

Moving on to the era of Indonesia's independence, these patterns changed to fit the new political and economic situation in the scope of neoliberalization. In this political economic structure, the demand for sugar is increasing along with an increase of the populations. As a result, Indonesia that was once a sugar producer country now became one of the heavily reliant countries of imported sugar. Even though the cultural and symbolic practice of sugar consumption still persisted, the consumption of sugar is mostly interpreted as a modern dietary habit that symbolizes comfort and normal reflected on the use of much sugars in highly processed and sugary dense food and drinks products. However, the persisted practice of cultural and symbolic meaning of sugar demonstrates that culinary practice and taste preference are never static, yet they fluctuate within shifting social structures. Therefore, the history of sugar in Java reveals how taste may act as both inheritance and adaptation as a result of cultural continuity maintained under political and economic constraints. The sweetness embeddedness in Java reflects how cultures adapt, reinterpret and reproduce habits and power through daily consumption, rather than being only a result of colonial control.

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## Appendices

**Appendix 1. Total Household Expenses for All Products Consumption/Week in Java's Province, 1993**

Types of Staple Foods Listed	Code of Province in Which HHL D Lives				
	Special Capital Region of Jakarta	West Java	Central Java	Special Region of Yogyakarta	East Java
<b>A</b> Staple Foods (Hulled, uncooked rice)	5,002,623	4,964,295	5,221,538	1,630,915	4,948,469
<b>AA</b> Granulated sugar	2,227,783	1,068,840	1,905,718	1,595,449	1,147,945
<b>B</b> Corn	85,850	86,550	150,560	205,475	312,284
<b>BA</b> Coffee	1,491,483	1,477,098	201,325	81,350	2,490,561
<b>C</b> Sago/flour	274,250	341,025	1,177,726	145,450	2,143,791
<b>CA</b> Tea	1,233,768	1,270,754	242,318	166,645	2,094,671
<b>D</b> Cassava	49,175	338,402	1,058,983	31,625	117,300
<b>DA</b> Cocoa	95,125	55,025	13,025	16,305	15,725
<b>E</b> Other staple foods	149,975	57,500	38,550	67,725	101,025
<b>EA</b> Soft drinks (Fanta, Sprite, etc.)	1,422,948	224,500	1,095,848	67,100	90,875
<b>F</b> Vegetables	6,626,148	3,803,275	3,910,021	1,044,850	3,495,996
<b>FA</b> Alcoholic	2,062,196	35,300	2,250	15,350	10,350

Beverages (beer, palm wine, rice wine, etc.)					
<b>G</b> Beans (mung beans, peanuts, soya beans, etc.)	1,333,598	485,950	261,850	95,750	294,290
<b>GA</b> Betel nut (for chewing)	11,250	38,025	36,950	28,700	48,150
<b>H</b> Fruits (papaya, mango, banana, etc.)	6,046,394	1,770,250	2,108,448	565,850	948,533
<b>HA</b> Cigarettes, tobacco	4,758,071	3,058,150	4,640,844	1,599,173	7,696,318
<b>I</b> Dried foods (noodles, rice noodles, etc.)	4,710,346	1,933,050	514,360	432,625	474,445
<b>IA</b> Snacks (satay, boiled or steamed cookies, etc.)	11,343,296	7,520,249	3,804,498	4,302,517	3,036,798
<b>J</b> Glass noodles, macaroni, etc.	40,650	87,600	1,095,073	16,825	32,175
<b>K</b> Food served with rice (beef, mutton, water buffalo meat, etc.)	1,694,125	1,657,950	1,625,064	227,048	1,732,173
<b>L</b> Chicken, duck, etc.	2,223,450	1,580,950	2,956,647	507,700	619,650
<b>M</b> Seafoods	2,526,098	3,325,744	1,458,923	100,100	891,675

<b>N</b> Salted fish	295,875	682,825	260,450	113,675	219,750
<b>O</b> Tofu, tempe, jerky, shredded beef, etc.	2,167,448	2,551,949	1,241,250	545,025	2,132,898
<b>P</b> Eggs	1,096,350	1,233,100	1,689,948	386,363	608,975
<b>Q</b> Fresh milk, canned milk, powdered milk, etc.	2,655,398	1,161,355	1,591,113	513,100	1,445,548
<b>R</b> Spices (Sweet and salty soy sauce)	375,200	333,875	3,178,417	61,525	2,202,296
<b>S</b> Salt	68,050	167,175	2,106,246	43,620	99,430
<b>T</b> Shrimp paste	60,075	144,150	2,085,396	11,325	92,975
<b>U</b> Chili sauce, tomato sauce, etc.	2,182,151	86,355	1,020,023	12,125	1,024,923
<b>V</b> Shallot, garlic, chili, candle nuts, coriander, MSG, etc.	1,954,148	1,285,247	2,986,556	401,760	2,984,807
<b>W</b> Javanese (brown) sugar	120,675	437,075	1,327,799	236,400	170,575
<b>X</b> Butter	1,186,123	177,725	2,080,996	21,600	47,550
<b>Y</b> Cooking oil (coconut oil, peanut oil, corn oil, palm oil, etc.)	2,986,001	1,258,190	2,883,121	393,030	2,797,151

<b>Z</b> Beverages (drinking water)	532,600	153,150	52,950	26,510	60,150
<b>Total</b>	71,088,696	44,852,653	56,024,784	15,710,585	46,630,227

**Appendix 2. Total Household Expenses for All Products Consumption/Week in  
Java's Province, 2014**

Types of Staple Foods Listed	Code of Province in Which HHL D Lives				
	Special Capital Region of Jakarta	West Java	Central Java	Special Region of Yogyakarta	East Java
<b>A</b> Staple Foods (Hulled, uncooked rice)	45,139,100	126,756,550	95,966,600	33,331,895	116,018,275
<b>AA</b> Granulated sugar	6,477,600	11,123,750	15,536,600	7,794,950	20,347,600
<b>B</b> Corn	1,891,250	3,810,500	2,101,150	653,500	4,741,500
<b>BA</b> Coffee	7,396,900	16,889,700	7,300,700	2,488,350	11,092,050
<b>C</b> Sago/flour	2,811,500	7,158,500	5,273,200	1,768,100	4,314,675
<b>CA</b> Tea	2,577,000	4,917,850	4,858,750	2,739,800	3,190,150
<b>D</b> Cassava	1,201,500	3,582,400	2,452,500	985,750	4,319,800
<b>DA</b> Cocoa	2,507,300	2,171,800	1,434,600	1,145,100	1,867,500
<b>E</b> Other staple foods	3,762,100	6,000,750	4,377,650	1,675,000	5,156,900
<b>EA</b> Soft drinks (Fanta, Sprite, etc.)	6,479,000	11,378,050	3,954,550	3,753,000	5,191,900

<b>F</b> Vegetables	17,872,200	34,357,700	22,980,500	10,024,550	26,996,300
<b>FA</b> Alcoholic Beverages (beer, palm wine, rice wine, etc.)	1,449,000	1,660,000	445,000	195,800	818,000
<b>G</b> Beans (mung beans, peanuts, soya beans, etc.)	2,076,000	6,436,000	4,265,700	1,763,000	5,583,500
<b>GA</b> Betel nut (for chewing)	2,899,000	2,482,600	1,148,250	572,500	3,239,650
<b>H</b> Fruits (papaya, mango, banana, etc.)	30,360,250	49,798,500	38,160,200	18,431,950	39,985,800
<b>HA</b> Cigarettes, tobacco	61,344,500	101,906,600	60,965,600	23,463,400	78,928,600
<b>I</b> Dried foods (noodles, rice noodles, etc.)	15,140,400	34,892,500	18,588,800	8,299,300	29,169,050
<b>IA</b> Prepared food (eaten at home)	85,499,000	116,035,550	68,842,850	46,174,000	70,121,950
<b>IB</b> Prepared food (away from home)	70,452,700	64,341,500	35,394,500	29,444,500	46,607,000
<b>J</b> Glass noodles, macaroni, etc.	18,996,500	34,504,400	20,904,600	13,136,900	25,561,250
<b>K</b> Food served with rice (beef, mutton, water buffalo meat,	11,681,500	19,699,250	12,554,500	8,821,000	17,691,000

etc.)					
<b>L</b> Chicken, duck, etc.	24,794,500	48,570,100	27,022,000	11,273,800	30,303,250
<b>M</b> Seafoods	18,359,160	24,104,500	19,538,000	5,677,500	26,577,800
<b>N</b> Salted fish	3,290,000	12,774,350	6,594,100	1,901,500	8,694,400
<b>OA</b> Other dishes (jerky, shredded beef, canned meat, sardine and the like)	4,509,500	6,367,000	1,689,100	1,745,800	1,423,500
<b>OB</b> Tofu, tempe, other side dishes	11,148,000	27,766,000	22,713,450	8,223,400	27,020,550
<b>P</b> Eggs	15,388,550	30,467,800	20,035,750	9,548,750	22,146,900
<b>Q</b> Fresh milk, canned milk, powdered milk, etc.	27,850,100	39,646,700	28,573,800	16,014,600	30,175,150
<b>R</b> Spices (Sweet and salty soy sauce)	3,902,750	7,980,950	5,961,300	1,907,450	7,066,900
<b>S</b> Salt	984,350	2,519,700	2,247,000	810,500	2,506,400
<b>T</b> Shrimp paste	629,000	2,219,375	1,587,850	211,250	1,967,600
<b>U</b> Chili sauce, tomato sauce, etc.	2,904,450	4,590,950	1,933,750	796,250	1,575,800
<b>V</b> Shallot, garlic, chili, candle	15,455,500	34,900,055	28,290,010	10,502,550	36,272,850

nuts, coriander, MSG, etc.					
<b>W</b> Javanese (brown) sugar	1,249,500	5,876,350	6,949,820	3,382,600	4,044,000
<b>X</b> Butter	1,733,600	1,877,000	1,017,450	487,500	993,000
<b>Y</b> Cooking oil (coconut oil, peanut oil, corn oil, palm oil, etc.)	10,648,800	25,297,350	22,089,275	8,230,700	25,000,775
<b>Z</b> Beverages (drinking water)	18,661,300	19,727,500	8,280,700	4,795,300	13,790,850
<b>Total</b>	559,523,360	954,590,130	632,030,155	302,171,795	760,502,175