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INDUSTRIALIZATION AND REGIONAL INCOME DISPARITIES IN HARYANA: TRENDS AND DRIVERS

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ABSTRACT

The state of Haryana, in India, is the focus of this investigation of the complex connection between industrialization and regional economic discrepancies. The paper presents a thorough analysis based on both historical context and modern economic theories, with a focus on understanding the patterns and causes creating this dynamic. This study makes use of powerful analytic methods like regression analysis and GIS mapping to decipher the complexity of this phenomenon using data collected from surveys, government publications, and scholarly literature. The study begins with a comprehensive examination of relevant theories of industrialization and economic development, establishing the framework for an in-depth analysis of Haryana's path to industrialization. The study sheds light on how the state's industrial landscape has changed over time by analyzing the factors that have led up to this point, the policies that have been implemented, and the most important industries in the state. Major industrial cluster case studies provide useful examples of geographical differences in industrialization.

Keywords: *Industrialization, Income Disparity, Region, Haryana, Economic Development, Trend, Reasons.*

1. INTRODUCTION

The urgent need to take decisive action to improve the industrial scene was felt keenly soon after independence, given the central role that industrialization plays in driving regional economic growth. Instead, it became clear that industrialization was the key to putting the country's damaged economy back on the road to recovery and growth. As a result, the nation's economic growth plans focused heavily on the industrial sector. For the sake of economic growth and job creation, the focus shifted from the development of basic and heavy industries to that of the small and medium sector. We know that planning necessitates the conscious management of a

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country's economic and natural resources. The Indian government's economic planners have long sought to maximize the country's limited resources through strategic planning for the nation's growth. Therefore, the locational theory's economic forces are crucial. We can learn more about the elements that drive an industry's location decision if we conduct this kind of investigation. The classical economists' attempts to contribute to a theory of the placement of industries amounted to little more than a few perfunctory allusions to the field. Entrepreneurs typically establish their businesses in areas with the lowest unit production costs. Location of Industries is the term for this phenomenon. Localization of industries refers to the concentration of businesses in one geographic location, as seen with many Indian industries like the textile sector in Bombay and Ahmadabad. This trend may be driven primarily by economic considerations. The term "planned location of industry," coined by Lord Beverage, describes an approach in which factories' spots on the map are chosen strategically so that each industrial region has factories from a range of different sectors. One major drawback of localization is that even if there is sufficient employment in the rest of the country, a change in demand affecting a localised industry might induce structural unemployment on such a scale that it would produce a pocket of mass unemployment. To prevent the growth of only a few regions' worth of industrial cities and places, the first stage in developing the country is to strategically place industries there.

1.1.Haryanaat a Glance

Haryana is mostly agricultural. The 'Green Revolution' and commendable industrial progress have increased the state's farm sector and manufactured goods production, but they have not reduced socioeconomic disparities between districts. Sustainable development in the state may be jeopardized if considerable portions of the population are left behind, especially relative to others (World Bank 2006).

Haryana has 22 districts. An estimated 253.53 lac people live in the state at 573 per square kilometer. From 2001 to 2011, population grew 19.9%. The state's estimated birth rate is 22.7 per thousand, while its crude death rate is 6.6. State efforts to reduce child mortality and improve maternal health are slow. Infant mortality rose from 69 per thousand in 1990 to 70 per thousand in 1994 before falling to 51 per thousand in 2009–2010. The maternal mortality ratio (deaths per 100,000 live births) decreased from 108.39 in 1990 to 105 in 1996–1997 but increased to 136 in 1997–1998 and 186 in 2002–2004. The ratio decreased to 153 per lack live

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births in 2007–2009, possibly due to the state government providing free healthcare to expectant women to encourage institutional deliveries. In 2009–2010, 77.1 urban and 44.2 rural live births were attended by doctors at government or private hospitals, up from 55 urban and 24.4 rural in 2004–2005. In 2007–2008, 53.2 % of deliveries were attended by competent staff, up from 31.5% in 1992–1993. The number of newborns attended by qualified health workers is rising, reducing maternal fatalities. Haryana's gender ratio rose 58 points from 819 in 2001 to 877 in 2011. Still, the situation is worse than the all-India average of 940. To bring the gender ratio up to the national norm, gender-sensitive policies that inspire and change attitudes are needed. The rescue girl child project may benefit from strict Pre-Natal Diagnostic Techniques Act enforcement and a widespread movement against female feticide. The life expectancy of women is 66.3 years, compared to 65.9 years for men. Number of estimated AIDS deaths decreased from 994 in 2006–2007 to 973 in 2009-10, whereas number of HIV/AIDS patients climbed from 1,594 in 2009–2010 to 2368 in 2011–2012, a 48.56 % rise in two years. The current tendency must be stopped and preferably reversed. Comprehensive HIV/AIDS knowledge is desirable. The state's malaria incidence rate dropped from 1.79 % in 2006–2007 to 0.81 % in 2010–2011, while its mortality rate was zero.

1.2. Haryana's Industrial Revenue - In The Present Day

Haryana leads industrial output of passenger cars, two-wheelers, mobile cranes, and tractors. Haryana is India's second-largest food grain supplier, exports more than 60% of Basmati rice, is the third-largest software exporter, and is a top location for IT/ITeS facilities.The state's GSDP (in Rs.) grew 10.46% between 2015-16. In FY20, Haryana exported $12.06 billion, in FY21, $11.60 billion, and in FY22, $15.55 billion. Automakers and auto-component makers favor Haryana. Many automobile giants are in the state. Two-thirds of passenger automobiles, 50% of tractors, 60% of motorbikes, and 50% of refrigerators are made in the state. Haryana exported ~US$ 1.070.3 million in cars and auto parts in FY20 and US$ 618.7 million in FY21. Haryana exports IT more than most states. Haryana exported US$ 390.7 million of electric machinery and equipment in FY22 and US$ 462.5 million in FY21. Under the 2011 Industrial and Investment Policy, the state offers many fiscal and policy incentives for firms. Additionally, it has IT and tourism-specific policies. Haryana State Industrial and Infrastructure Development Corporation Ltd. (HSIIDC), the state's leading industrial development and investment

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facilitation agency, provides trustworthy and efficient facilities for businesses investing in the state.

1.3. Income Disparity In Haryana

Haryana is currently one of India's most rich states after two decades of economic growth. Due to service sector expansion and industrial progress, per capita income in the state has increased greatly. Haryana's economic growth and prosperity vary. How economic expansion causes income inequality relies on its factors. Due to the high need for unskilled labour in agricultural and low-skilled labor-intensive manufacturing, growth is likely to be more equal. However, if jobs are created in skill-intensive service sectors like banking, business, and insurance, only a few highly educated people will be hired, increasing economic inequality. Thus, economic growth determinants must be examined to assess inequality. This section analyses Haryana's economic growth drivers by sector-wise growth performance and GSDP contribution. Since 1980, GSDP (at factor cost) data is used. The splicing method makes GSDP series similar over time.

2. LITERATURE REVIEW

According to a meta-analysis of research from all across the world, progress in the social sector correlates strongly with economic expansion. Social sector development has been proven to have good consequences for economic growth by researchers such as Hicks (1979), Streeten, Goldstein, Ram, Strauss & Thomas, Duflo, Haddad, and Culter. Expenditures on health improve people's health, which in turn boosts their output, as explained by Sen (2016), Hooda (2013), Gangal& Gupta (2013), Mohapatra (2013), Haldar et al. (2006), and Bhat& Jain. Their standard of life and per capita income (in both nominal and real terms) improve as a result of this increased productivity. In addition, it promotes the expansion and improvement of the economy.

Narayan, L. (2018)Considering its relatively small size (in terms of both population and GSDP), Haryana has made significant contributions to India's manufacturing sector. Haryana's impact on India's organized industrial sector is the focus of the current paper. The article examines the manufacturing sector in Haryana and makes comparisons to other states and the national average using data from the Annual Survey of Industries, the Statistical Abstract of Haryana, and the Central Statistical Organization. The article uses structural and technical coefficients to

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compare the registered manufacturing sector of Haryana to national averages and other states, and to analyze its performance and efficiency. In order to determine which sectors make up a state's industrial base, the authors of this research used the location quotient and the coefficient of specialization. According to the research, Haryana's standing in India's industrial landscape has been steadily rising.

Bansal et al. (2019) Haryana's fast urbanization may be traced back to its formation as a separate state in 1966. However, the state's urbanization has occurred at wildly varying rates. The pattern and process of urbanization in the state have been shown to be influenced by its proximity to the NCT of Delhi and its transport links, via national and state highways, with Delhi. The degree of urbanization and the size and spacing of urban centers show a dramatic change as one travels away from the national capital and the national roads. Many issues have arisen as a result of the state's unbalanced urban growth. This article uses statistics and information from various decadal editions of the Census of India to analyze the patterns and pattern of urbanization in Haryana since independence. In 2011, more than half of Haryana's urban population lived in the state's top 19 cities, which together accounted for less than 1% of the state's total 154 urban centers. As the other end of the spectrum, 44 of the urban centers that together make up around a third of all urban areas have fewer than 4% of the urban population. Nearly 90% of the state's urban population lives in just 14 designated urban areas.

Kumar et al. (2016)Haryana's plateauing agriculture production made agro processing crucial. When rural jobs are few, its importance rises. This report examined village-level agro industry growth over time and identified Haryana's agro industrialization barriers. The results show that village oil ghani, jaggery, and khandsari processing are lagging behind cereal and pulse processing and fruit preservation and processing. However, the 20s indicate village-level processing is improving. Village level processing is limited by procedural complexity in land acquisition and higher pricing, insufficient capital for small entrepreneurs, lack of talent and awareness, greater machinery costs, and weak marketing and policy assistance. Thus, a comprehensive strategy to increase agro processing in the state must comprise physical, functional, and market infrastructure, single window system, tax rebate, and export subsidies.

Bathla& Kumar (2018) Growing wealth inequality between and within states has dominated Indian policy discourse. A disaggregated analysis of agricultural household income inequality and associated determinants can help policymakers consider inclusive growth and welfare. This

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research assesses agricultural household income disparity and examines its causes using farm-level data from a 2003 and 2013 nationally representative survey. Over the past decade, households' crop and animal farming income quadrupled and wage and non-farm income climbed 1.3 times. Inequalities haven't increased, although Gini indices are high in every state, regardless of land area. Inequality is driven by land, non-farm income, and farm assets in each state, according to regression-based inequality decomposition. Estimated contributions across India are 25.8, 28.6, and 14.3%. The findings propose increasing public investment and equalizing land, technology, and financial access to boost private investment and productivity. Real problem in minimizing income inequalities is improving holdings' viability as they fracture.

3. STUDY AREA

Haryana's Major Industrial Hubs

Faridabad - Faridabad, at 2.151 square kilometers in size, is another major economic and industrial hub. Faridabad's primary economic drivers are the manufacture of metal goods, automotive components, and light engineering items.

Gurgaon - The most developed commercial and business centre in Haryana is Gurgaon, covering 2766 sq. km. Gurgaon has most auto, auto component, and garment export units. Gurgaon has been a significant IT and ITES hub in the state in the previous 3-4 years.

Panipat -The most contemporary public sector refinery, Indian Oil's Panipat, has cutting-edge technology. A project under the Government of India's Textile Centres Infrastructure Development Scheme (TCIDS) began in Panipat to boost textile sector growth. Also, a Thermal Power Plant.

Yamuna Nagar - Haryana's main industrial centre is Yamuna Nagar, home of Asia's largest sugar and paper mills. It has a thermal power plant, hydroelectric power plant, and steel and brass industries.

Panchkula - The state government provides incentives to the IT and BPO sectors. IT Park, Nano City, and other cyber towns and technology parks developed between 2006 and 2008 employ around 30,000 people in Panchkula. Haryana was the first Indian state to electrify rural areas 100% in 1970.

- **Potential Industries**

Haryana is a dynamic, fast-growing state ideal for profitable investment.

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- Considering their long-term sustainability and growth potential, the state would encourage investments in the following sectors.
- Food processing and related industries Industries
- Automotive and components
- Electronics and IT
- Footwear and accessories
- Handloom, hosiery, textiles, and apparel Manufacturing
- Healthcare and pharmaceutical industry - Research and development and frontier technologies
- Transport services and network
- The waste processing and recycling business

- Public Sector Enterprises in Haryana Public sector firms in Haryana are few

The following Haryana public sector units exist:-

(i) Hindustan Machine Limited, Pinjore.
(ii) National Fertilizers Limited, Panipat
(iii) Indian Pharmaceutical Limited, Dudaheda
(iv) Bharat Electronics Limited, Panchkula
(v) Cement Corporation of India, CharkiDadri
(vi) Refinery of Indian Oil Corporation, Panipat

- The States enterprises are as follows:
  (i) Haryana Brewaries Limited, Murthal
  (ii) Haryana Concost Limited, Hisar
  (iii) Haryana Minerals Limited, Narnaul
  (iv) Haryana Tanneries Limited Jind
  (v) Haryana Agro Industries Corporation, Chandigarh
  (vi) Haryana Dairy Development Corporation, Chandigarh

4. RESEARCH AND METHODS

Gross or per capita income, health, and education are the major indices of economic development. We only examined these indicators in this investigation. These three indicators were further divided into relevant factors. This article used contemporary secondary data

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sources including Haryana Statistical Abstracts, NSSO data from several rounds, Census data, and others.

4.1. Objectives

The aims of the study are as follows:

1. To analyses how Haryana's economy has shifted since the 1990s.
2. For the purpose of comparing the rate of urbanization in different Haryana districts.
3. To examine the differences in economic output and personal wealth throughout Haryana's several districts.

5. DATA ANALYSIS AND INTERPRETATION

5.1. Full scale level development patterns

By charting the NSDP and NDP indices for Haryana and India at 1993-94 prices, we were able to compare the index of net domestic product. Since 2000-01, Haryana indices have outpaced India's. We determined that Haryana's annual growth rate has been lower than India's average for 15 of 35 years. In 16 years after 2000-01, Haryana only grew slower than India in 2005-06, 2007-08, and 2010-11.The graph shows that NSDP has outpaced NDP. Table 1 show that Haryana's secular growth rate in net domestic product has been above the national average from 1971-72, as real Net State Domestic Product (NSDP) has grown faster than real NDP.

Table 1:YearlyDevelopment rate of Real Net State Domestic Product (NSDP) and Real Per Capita NSDP

Period	NSDP		Per Capita NSDP	
	Haryana	All India	Haryana	All India
1971-02 to 1980-01	4.85	3.69	2.24	1.25
1981-02 to 1990-01	6.8	5.62	4.14	3.38
1991-02 to 2000-01	6.73	6.05	4.45	4.09
2001-02 to 2010-11	8.69	7.47	6.76	5.66
2011-12 to 2015-16	7.01	6.23	5.39	4.2

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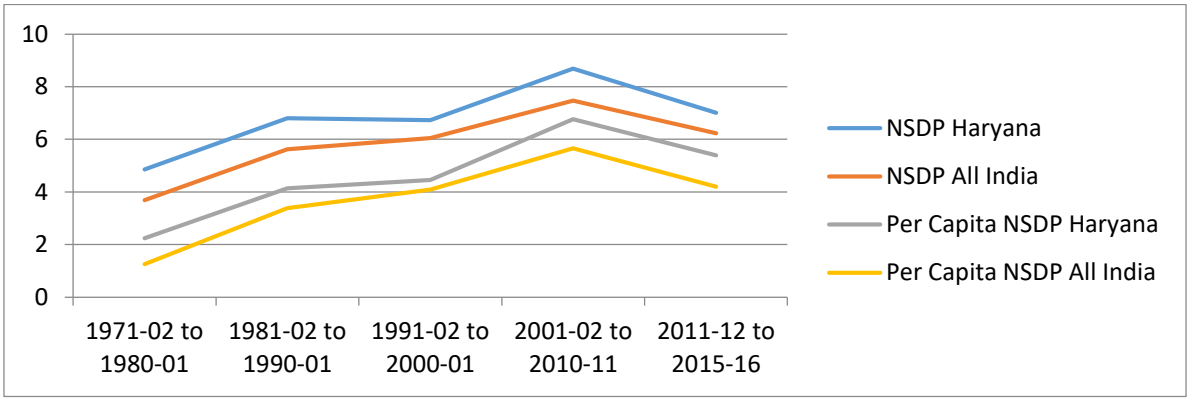

Figure 1: Graphical representation of NSDP of Haryana over the years

Haryana regularly surpassed the national average in Net State Domestic Product (NSDP) and Per Capita NSDP throughout decades. Haryana's NSDP growth outpaced the national rate from 1971-1980 to 2011-2016, indicating a strong economy. Haryana has a larger Per Capita NSDP gap than the national average, suggesting economic prosperity. Industrialization, agriculture, and urbanization drove this rise. Haryana's focused policies and strategic investments undoubtedly helped. Haryana is an economically progressive state in India, as seen by its ongoing attempts to develop and enhance living conditions.

Table 2:Inter-district growth rate

Districts	Agriculture	Industry	Service
Haryana	3.78	7.85	12.18
Gurugram	5.74	8.08	16.47
Panipat	4.82	10.53	11.99
Faridabad	5.06	7.1	14.34
Panchkula	5.59	4.88	13.06
Rewari	3.39	10.54	9.96
Ambala	4.45	7.64	10.7
Sonipat	3.56	8.98	13.09
Karnal	4.11	7.86	9.96
Yamuna Nagar	4.64	5.4	10.7
Hisar	3.28	8.99	10.11
Fatehabad	3.08	9.48	10.02
Sira	4.9	8.52	8.95
Kurukshetra	4.37	9.82	9.13

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Jhajjar	3.8	10.07	10.22
Rohtak	4.8	7.24	11.42
Bhiwani	3.6	7.34	11
Kaithal	2.49	8.74	9.46
Jind	3.15	8.59	9.22
Mahindragarh	4.62	8.76	9.24
Palwal	-	-	-
Mewat	-	-	-
Dadari	-	-	-

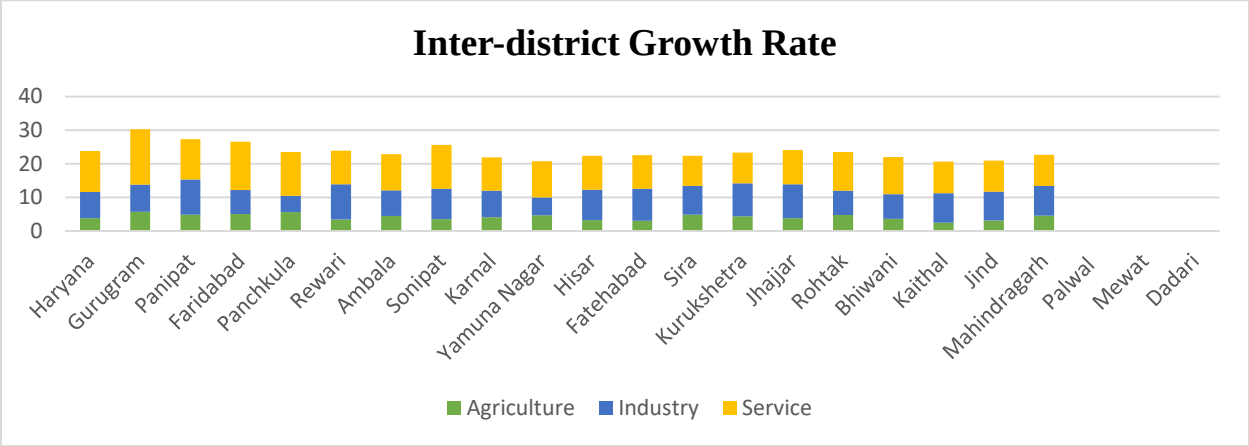

Figure 2:Graphical representation of inter-district growth rate across different sectors

1. **Overall Economic Composition**:

- Agriculture: The range of agricultural activity spans from a low of 2.49% in Kaithal to a high of 5.74% in Gurugram.
- Industry: The industrial sector varies from 4.88% in Panchkula to 10.54% in Rewari.
- Service: The services sector shows a range from 8.08% in Gurugram to 10.54% in Rewari.

2. **Dominant Sectors**:

- Gurugram stands out as the district with the highest contribution in all three sectors: Agriculture, Industry, and Services. This indicates a highly diversified and developed economy, possibly influenced by its proximity to the national capital, Delhi.
- Rewari also has a notable presence in both Industry and Services, suggesting a balanced economic landscape.

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3. **Agricultural Emphasis**:

- Karnal, Sonipat, and Mahindragarh have relatively higher emphasis on agriculture, with percentages above 4.
- Kaithal, Jind, and Hisar have lower agricultural contributions, with percentages below 3.5.

4. **Industrial Base**:

- Rewari, Jhajjar, and Panipat have strong industrial bases, with percentages above 10. This could be due to factors such as favorable policies, infrastructure, or historical industrial presence.

5. **Service Sector Significance**:

- Apart from Gurugram and Rewari, several districts like Panchkula, Rohtak, Faridabad, and Sonipat also have a substantial focus on the service sector.

6. **Opportunities for Growth**:

- Bhiwani, Kurukshetra, Ambala, and Sira have relatively balanced contributions across sectors. This may indicate potential for growth in any of the sectors based on strategic development.

7. **Potential Policy Implications**:

- Understanding the economic composition of each district can help in tailoring policies to leverage existing strengths and address specific challenges.
- For instance, districts with strong agricultural bases might benefit from investments in modernizing farming techniques, while districts with a robust industrial base may need infrastructure improvements to sustain growth.

8. **Regional Disparities**:

- The table indicates varying levels of economic development across districts, which may require targeted interventions to reduce disparities and promote inclusive growth.

6. RESULTS

Based on above, Haryana is doing well nationally. It has one of India's top five GDPs and a greater literacy rate than the national average, regardless of gender. In health, Haryana has the lowest sex ratio of 29 states. We must handle this issue immediately to avoid bitter results. Its health infrastructure is vast compared to other states, however it requires improvement. In state, district-level discrepancies are common. Gurgaon, Faridabad, and Panipat are far better off. Equitable treatment is needed, not equal. Keep up the good growth to top the NITI Aayog

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SDGs Index and Human Development Ranking.Other districts like Ambala, Sonipat, Rewari, and Panchkula have seen a slight increase in their state GSDP shares.

- The combined GDSP share of four western districts—Hisar, Sirsa, Fatehabad, and Bhiwani—has dropped by over four percentage points.
- In Haryana, Gurgaon has the highest per capita income at Rs. 175826, followed by Panipat at Rs. 109232. Mahendergarh has the lowest at Rs. 32866, followed by Dadari at Rs. 33000.
- PCI growth rate of 9.7% is greater in Gurgaon and Faridabad, but lower in Fatehabad and Kaithal.

7. CONCLUSION

Haryana has grown dramatically in the previous 30 years. Growth is centered in the NCR. Thus, Haryana's inter-district income gap has grown. Our analysis reveals that state districts have significant income and non-income differences. The state's poorest districts include Mewat, Fatehabad, Palwal, Sirsa, and Bhiwani in every economic index. Policymakers must focus on these districts. Poor districts have low urbanization and domestic product income. Industrialization in this area can enhance these statistics. The eastern section of the state is more developed than the western districts due to its position. State economic growth has been led by the tertiary/service sector. This sector employs skilled and educated workers. Education is the key to inclusive economic growth and reducing poverty and inequality. Though Haryana's education sector has grown, western districts remain underperforming. Thus, western districts need urgent education improvements. The education sector costs more than the national average but still lags behind in gender equality. The government should eliminate literacy disparities between districts. To increase literacy and alleviate inequality, authorities lower education costs for the poor. Education costs should be lowered and more schools opened to close the east-west gap and empower marginalized groups.

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