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Gandhi's Vision for a New India

**Suresh Kumar, R.K., Suresh Kumar, P and Sukumaran Nair, P (eds.),
Mahatma Gandhi – A Contemporary Reading,
C. Achutha Menon Foundation, Thiruvananthapuram,
in association with Manak Publications, New Delhi
and Michigan, 2023. Pp. 353. Price: Rs.2000**

D. Jeevan Kumar

This volume is a *Festschrift* in honour of **Prof. B. Vivekanandan** who served in the Centre for American and West European Studies at Jawaharlal Nehru University for 29 years, apart from holding several Visiting Fellowships in Universities abroad. He is one of the very few Indian academicians to figure in the *Dictionary of International Biography: Leading Educators of the World* and the *2000 Outstanding Intellectuals of the 21st Century*. This *Festschrift* is published in Prof. Vivekanandan's honour for his efforts in integrating the Gandhian agenda with the theory of Social Democracy.

The book is divided into 4 Parts, and has 27 articles, apart from a Tribute to Prof. Vivekanandan by Dr. D.K. Giri and a detailed Introduction. An attempt to capture the essential arguments of the various contributors is made here.

Part I titled, *Igniting the Human Spirit – The Phenomenon of Gandhi* has eight articles. To **B. Vivekandan** (*Mahatma Gandhi: The Light and the Legacy*), it is imperative to recapture the light and the legacy of Mahatma Gandhi for the future well-being of mankind. According to **Anand Gokani** (*Gandhi: Yesterday, Today and Tomorrow*), by adopting Gandhian values, we can fight abstract enemies like corruption and moral turpitude. In the words of **T.P. Sreenivasan** (*The Gandhi Magic*), Gandhi's potential to ignite human minds across the world is aiding India in her march towards emerging as a global power. **Padma Ramakrishnan** (*Leadership Logic of Mahatma Gandhi*) identifies the unique features of Gandhian leadership – his mass appeal, mental courage, commitment to high moral values and the great ability to speak to people's hearts and minds. **P. Sukumaran Nair** (*Western Influence on Gandhi*) examines the influences of four Western thinkers - Socrates, John Ruskin, Thoreau and Leo Tolstoy - on Gandhi. **S.M. Vijayanand** (*Gandhiji for the 21st Century*) hopes that people will re-visit, re-read, re-understand and re-accept Gandhian principles and practices and apply them to present-day crises. The predicament of Gandhi's wife and children leading lives in the shadow of the Mahatma's greatness, is the theme of **G. Jayakumar's** article (*Making Sense of Gandhi as a Family Man*).

Part II titled *Regenerating the Spirit of Rural India* has six articles. According to **T.K Oommen** (*M.K. Gandhi's Conception of Indian Village: A Critical Appraisal*), Gandhi's conception of village was not anchored on the modern notion of development but on the *post-modern perspective of quality of life*. He advocates a sane Public Policy which permits a balance between the city and the village. **Sudarshan Iyengar** (*Gandhi's Economic Thought: A Revisit*) sheds light on the Gandhian concepts of full employment, body labour, trusteeship, decentralization and cooperation. **Mary George** (*Village Swaraj of Gandhi: Retrospect and Prospect*) reminds us of Gandhi's dream of India as a casteless and classless society where all service has equal status and carries equal wages. **M.R. Biju** and **Anantha Padmanabha** (*Democratic Decentralization, Regeneration of Villages and Self-Government: The Gandhian Perspective*) assert that the Gandhian outlook on decentralization, village regeneration and *swaraj* were fully humanistic and holistic in

nature, and rooted in devolution, self-sufficiency, cooperation, equality and trusteeship. **Saurav Kumar** (*Rediscovering Gandhian Health Ethics*) delves into the 'Health Ethics' of Mahatma Gandhi, the values guiding his perception of healing systems, medical practitioners and dietary rules. **D. Jeevan Kumar**'s paper builds a strong case for a *Gandhian alternative vision of Sustainable Development* that is simultaneously concerned with well-being, equity and ecological integrity.

Part III of the book has six articles that deal with **Gandhian Ethics on Conflict-Resolution**. In this section, **M.P. Mathai** (*Gandhi's Religion and its Problematics*) unravels the multi-dimensionality of Gandhi's conception of religion consisting of interlocking layers of the spiritual, moral, social, cultural and political. To **G.B. Thampi** (*Gandhi and Marx: Conflict and Consensus*), though the Gandhian and Marxian goals may appear as utopian, it is the responsibility of the present generation to work for the realization of their dreams of transforming social structures studded with inequalities. **Rajaram Tolpadi** and **N.B. Shetty** (*Re-Visiting Gandhi and Savarkar*) have revisited the quintessential ideas of Gandhi and Savarkar and point out that both of them engaged with issues of civilization. In their view, an understanding of their civilizational quest demands a distinct mode of intellectual inquiry. **Nirjhar Mukherjee** (*Gandhi and Ambedkar: Beyond Contradictions and Strategy, Lessons for Democracy*) pleads for the need for a better understanding of Gandhi and Ambedkar for the vitality of Indian democracy in present times. **Shiraz Sheikh** (*Gandhi's Civic Nationalism and the Renewed Debate on Citizenship in India*) critiques the present regime's concept of religion-based citizenship and asserts that the Gandhian concept of citizenship is based on a democratic, pluralistic and multi-ethnic civic nation. **K. Shaji**'s article (*The Legal-Eagle Gandhi in South Africa*) traces Gandhi's life in South Africa as a lawyer and how he developed the values and features that moulded a successful barrister into a Mahatma.

Part IV - Decoding Gandhian Politics – has seven articles. **D.K. Giri** (*Remembering Gandhi*) points out the futility of blending Gandhi, the human being, with the God who can do no wrong! **V. Raghupathy** (*The Swaraj Unrealized - Revisiting Gandhi*) reminds us that *Swaraj* must be achieved through constant struggles, both at the individual as well as community levels. **N. Gopakumaran Nair** (*Hind Swaraj: A Prelude to Gandhian Way*) critically examines the ideas contained in *Hind Swaraj*. **Malli Gandhi** (*The Relevance of Gandhian Educational Ideas and Experiments: Implications for Policy and Practice*) is convinced that the Gandhian project of education needs a new institutional framework, new leaders and a new set of practices and processes. **N. Ramalingam** (*Salt Satyagraha: Revisiting an Episode of Non-Violent Civil Disobedience*) states that the Salt Satyagraha is a classic lesson of how the selection of a symbolic form of protest can act as a gamechanger in the long run. **R.S. Singh** (*Modern Indian and Unfinished Gandhian Programmes*) asserts that the Gandhian ideas of upliftment of the downtrodden and Village Swaraj are some of the unfinished Gandhian projects requiring completion. **P. Suresh Kumar** (*Swadeshi in Policy Frame: Implementing Gandhian Thoughts in 21st Century Governance*) draws our attention to some of the Gandhian programmes that appear to have found a prominent place in the present government's policy framework at the centre.

The book deserves to be commended for several reasons:

- It reopens the arguments on humankind's resource choices, production, distribution and consumption, the marginalized and the downtrodden, human rights and responsibilities, loss of livelihood, climate-sensitive development and peace, truth and non-violence.
- It looks into the Gandhian ways of ensuring social harmony and protecting Mother Nature.
- It makes a fervent argument for recasting and reworking Gandhian ideas, concepts and principles for an effective and comprehensive resolution of present-day contradictions.
- The contributions of Gandhian scholars like Anand Gokani, Sudarshan Iyengar, M.P. Mathai and T.K. Oommen add enormous value to the volume.

However, the reviewer cannot fully agree with the contents of the article dealing with implementation of Gandhian thought in 21st Century Governance.

Introducing New Book

Twilight of an Empire

Swapna Liddle, *The Broken Script: Delhi Under the East India Company and the Fall of the Mughal Dynasty, 1803-1857*, Speaking Tiger, New Delhi, 2022, xviii + 413 pages, Rs. 899/-

Saurav Kumar Rai

Swapna Liddle is quite a familiar name among the heritage lovers particularly that of Delhi. Through her various 'heritage walks' in and around the city of Delhi, she enthusiastically sought to raise awareness about the city's historic precincts, architectural marvel and cultural richness. The present book is the rehashed version of her PhD thesis inspired by another great historian of Delhi Prof. Narayani Gupta. It discusses a relatively less explored time period of Delhi's history viz. 1803-57. This was the period when the city of Delhi was ruled by two different competing power regimes - the English East India Company, which captured this Mughal capital in September 1803 following the Battle of Patparganj, thereby becoming its *de facto* ruler; and the 'emperors' belonging to the glorious Mughal lineage who were still held as *de jure* rulers of Delhi. In a way this book resorts to the study of the 'hybrid half-century' characterised by overlapping regimes which led to 'change along with continuity' at different levels in the city's history.

The book is broadly divided into five parts. The first part deals with the reign of Akbar II, the beleaguered emperor, who struggled both within the family, often on minor points, and outside it. His reign was marked by continuous intervention by the British Residents not only in the city's administration but also in the affairs of the royal family. A conspicuous 'British Enclave' came up in Delhi during this time in and around the Kashmiri Gate area. So strong was the identification of Kashmiri Gate with British society, argues Liddle, that it occurred to at least some who were aspiring to be part of that class, that this was the place to live (p. 61).

Part two of the book looks at the 'winds of change' marked by increasing economic control, introduction of new systems including far-reaching changes in the land revenue administration in the territory of Delhi, and promoting social and educational reforms among the inhabitants of the city. The English East India Company gradually started 'unmasking' its presence in the day-to-day administration of the city and the Mughal emperor was 'marginalised' further. Increasingly, the civil administration of the city as well as the British commander of the palace guard were getting involved in the internal affairs of the palace (p. 87). In other words, in this part, Liddle shows the growing confidence, often tantamount to audacity, of the English East India Company in Delhi.

Part three explores the coming to the throne of Bahadur Shah Zafar in 1837 as the new emperor of Delhi and the challenges received by him from the Company and from within the royal family. Interestingly, Liddle here delves into the unique public imagery of Zafar despite his waning political role. According to Liddle, no matter how much opposition Zafar faced from his own family, or from the British, he held a special place in the hearts of the people of Delhi, a relationship which continued into the 1850s (p. 169). To Liddle, he was 'the people's emperor'. This was the image built by Zafar for himself among the people of Delhi through personal gestures of generosity, patronage and alms-giving. This may be one reason, besides many other, why the rebelling sepoys of 1857 still saw him as their legitimate ruler.

Part four of the book is specifically devoted to the 'world of poetry and education' which thrived in

this hybrid half-century. Here the establishment of the Government College in 1825 and its functioning receives special attention of the author who has devoted as many as four chapters on it in this part. An interesting discussion here is on Master Ram Chander who apart from his active involvement in the translation project, produced original work in the field of mathematics in Urdu language (pp. 235-40). The period also witnessed the rise of modern journalism in Urdu, and various printing presses and publications, exemplified by papers like the *Delhi Urdu Akhbar*. Thus, the city was under a vibrant and dynamic culture embarking on a process of far-reaching changes, some of which were driven from the interaction between Western education and thought, on the one hand, and strong tradition of language, literature and learning on the other.

The final part of the book attempts nuanced examination of the events of 1857 and its aftermath. As the author argues, although the city was slowly re-built, its character after 1857 was perceptibly different (p. 359). Liddle here points out that for the cultural and intellectual history of Delhi, 1857 represents a 'disruptive episode', rather than a turning point (p. 362).

Thus, this book offers an elaborate sympathetic study of the complexities of late Mughal politics and life at its twilight with Delhi being the centre-stage at the cusp of modernity. It is a perfect specimen of rigorous scholarship interwoven with exemplary storytelling.

A Study on the Predicament of Tea Plantation Workers and Effectiveness of Trade Unions in Devikulam Taluk, Idukki District, Kerala

**Usha Devi T.V.
& Raji Prasad G.V.**

Tea Plantation sector in India has been contributing significantly towards the socio-economic development of the people of the tea-growing regions of the country. However, the workers of the tea industry are facing serious challenges and its very survival is being questioned. This paper explores and analyze the socio-economic and living conditions of the Tea Plantation workers as well as the role of Trade Unions in the Plantation Sector of Kannan Devan Hills of Devikulam Taluk in Idukki District, Kerala. Simple Random sampling method is used to collect the samples. Both primary and secondary data were applied for the present study and a sample size of 150 workers was selected from 4 estates of the Kannan Devan Hills of Devikulam Taluk in Idukki District, Kerala.

Key words : Tea Plantation, Social conditions, Workers, Tea growers, LTGs, STGs

I. Introduction

The Tea industry acts as a major employer in India. At present, India stands as the top producer of tea, producing about 30% of the world's tea production annually. The plantation sector provides income and livelihood for the vast majority of the people residing in the Devikulam Taluk in Idukki district, Kerala. Even though it is the greatest profit-earning business in the nation, the employees engaged in it face a lot of humiliation and constraints. In the Tea Plantation sector, workers have chosen the bottom position in functional as well as social strata. This study is undertaken to check the socio-economic and living conditions of the employees and examine the effectiveness of Trade Unions in solving the living problems of the Tea Plantation workers. According to the Tea Board of India, there were two categories of tea growers namely Large Tea Growers (LTGs) and Small Tea Growers (STGs). The growers with a plantation area of up to 10ha are classified as Small Tea Growers and all the growers having a Tea plantation of more than 10ha are known as Large Tea Growers. The majority of the Tea Growers in the Idukki District fall in the category of STGs.

II. Statement of the Problem

Among the plantation crops, tea is the most labour intensive one. This sector is the second largest employer in India. In spite of being the greatest profit earning business in India, the tea workers are facing a lot of problems and that has severely affected their standard of living. They are not getting their rightful incentives and wages. Tea workers also face problems like attack of wild animals. No proper security measures have been provided to them. While tea workers remained unorganized for decades, the planters have always been well organized and powerful. Trade union activities progressed here to address this challenge. They had an important role in the betterment of the living conditions of tea workers. It is clear that the socio-economic and political changes in the state influenced the functioning of trade union movement in this sector also. Hence the study focuses on the constraints of tea workers and effectiveness of trade union movement.

III. Review of Literature

Weijing (2004) examines the economic roles and the lives of women tea-pickers over the course of

China's imperial history. It argues that women's work in imperial China took on different meanings as ecological settings, economic resources, and social class shifted.

Faisal et al (2016) on behalf of the International Labour Organization conducted a study on the working conditions of the tea plantation workers in Bangladesh. The overall findings of the study suggest that the situation of tea plantation workers needs to be improved and that their rights should be protected based on the mutual agreement amongst tea plantation workers, garden owners and the Government.

Paul (2019) portrays an overall picture of poverty and dangers faced by the Indian tea plantation workers. The study reveals that the plantation owners preferred hiring women because of their reliability and purported superior "feel" for plucking tea leaves. They had to ride away at least 3-4 hours to reach hospital. Moreover, their daily wages were also poor.

Hema Srikumaretal. (2017) found that the Indian Tea Industry is facing some serious challenges and even its survival is being questioned. The impact and consequences of this deep crisis are multi-dimensional in nature. The process of abandonment and closure of estates become common. Tea workers lose wages, employment and all other statutory welfare measures. It has severely affected the standard of living of estate labourers, employment opportunities and level of trade union activities.

Rajalaxmi et al (2017) opined on the 'Penpilaiamaram', 2015. Around 5000 women workers of the Kannan Devan Hills Plantation, a large tea estate in Munnar in Kerala, launched a spontaneous agitation demanding increased wages and bonus. They staged a massive sit-in Munnar town, bringing operations on the tea-estate to a halt. The uniqueness of the strike was its non-violent nature and distancing from party-affiliated tea-plantation unions.

IV Objectives of the Study

This paper stems with the objectives to explore and analyse the constraints of the tea plantation workers as well as to examine the effectiveness of Trade Unions in solving the problems of the Plantation Sector of Kannan Devan Hills of Devikulam Taluk in Idukki District, Kerala.

V Methodology and Sources of Data

The design of the present study is descriptive in nature. The study relies on both primary and secondary sources. Simple Random Sampling procedure is used to collect the data related to the indicators of the general living conditions of tea workers. The primary data were collected with the help of a well-structured schedule which was prepared according to the objectives of the study. A sample of 150 workers was selected from the Kannan Devan Hills at Devikulam Taluk, Idukki District. Idukki district represents more than 67.50 per cent of total tea plantation area of Kerala. The tea plantation area of the district is spread over Peermade, Udumbanchola and Devikulam Taluks.

The secondary data were collected with the help of published and unpublished online sources, magazines, journals and books. Data were analysed using percentages, graphs etc. The independent variables incorporated in the present study were selected based on substantial literature review.

VI. Constraints of Tea Plantation Workers

The improvement in quality in addition to reduction in cost of production is the important issue concerning the Kannan Devan Hills Tea Industry. The issue cannot be solved due to the following constraints:

- 1. Low productivity and low yields:** The majority of the tea plantations in Kannan Devan Hills are old plantations ranging from 150 to 200 years and yield is diminishing year after year.
- 2. Fragmented land holdings:** Earlier the Tea Estates which were big in size were reduced to small units because of the division of family units over the years.
- 3. Acute labour shortage:** Tea Industry generally being labour-intensive, requires regular permanent

labour throughout the year. All the problems and issues being faced by the tea growers are mainly manifestations of an acute shortage of labour. To overcome this situation, efforts are required on the part of tea planters to mechanize various operations especially pruning and plucking. Some growers have tried this method and the results are encouraging.

4. **Lack of technological advancement:** Lack of adoption of advanced techniques is one of the important problems of the study area. This is the basic reason of the low productivity of tea gardens.
5. **Low accessibility of the market & lower prices:** Since the share of Kannan Devan Hills in the entire Industry of tea in India is almost negligible, there is no local market in this area. Thus, tea planters do not have reach in the market and are dependent on agents in these markets and as such they get lower prices for the tea sold.

VII. Government Training Programmes

1. PMKVY-RPL Programme- Tea Board has taken the initiative to provide training and skill recognition of about 14,700 tea garden workers through National Skill Development Council (NSDC) under the PMKVY. The progress made in this regard is as under:

Sl .(No)	State/Union Territory	Targets approved (No)	Candidates Enrolled (No)	Candidates Assessed (No)	Candidates CertifiedNo
1	Assam	6780	2162	1575	1526
2	Kerala	979	477	358	357
3	Tamil Nadu	2675	570	141	140
4	Tripura	365	380	258	250
5	West Bengal	3903	2972	2488	2446
	Total	14700	6561	4820	4919

Source: Tea Board of India

2. Swachta Action Plan (SAP): As per direction of the government, tea board took initiative for implementation of the Swachta Action Plan in different offices of the Board and tea gardens. An amount of Rs.50,000laks was spent towards cleaning of Board's office premises and beautification of surroundings and other activities.

VIII. Results and Discussion

Gender Classification: Gender wise categorization of any employment reveals the gender dominance in that employment. Here what is revealed is the dominance of women tea workers. It says about how much females are suppressed in terms of the activities in the plantation, wages, etc. The gender wise distribution indicates that most of the workers in this garden were female (68%).

Education is one of the determinants of Physical Quality of Life. The noted factor here is that among 150 sample workers, no one is illiterate. Majority of the workers (61.33%) have dropped their study at 12th class and 37.33 % have stopped their study at secondary level. As per the sample workers, no one got a chance to study at college level.

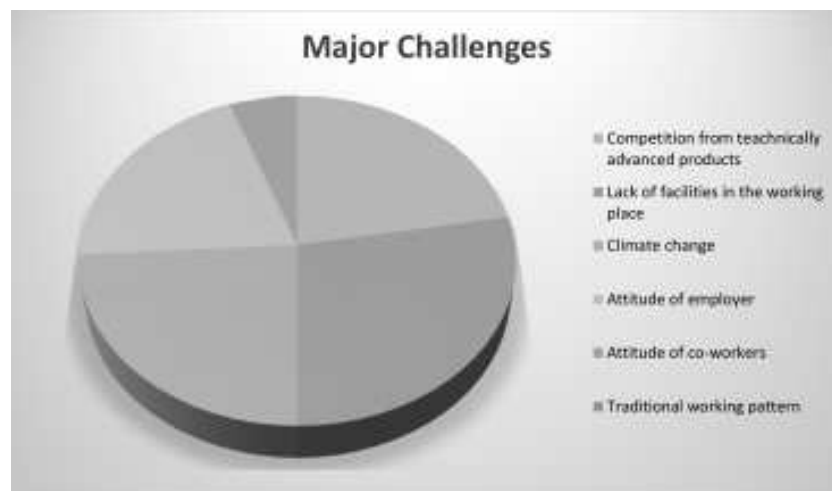
As of the response of workers, it is understood that they are ready to provide better education to their children but education is a long process and parents are not sure about completing the process without any hindrance. Financial difficulties of parents in addition to ignorance with respect to higher education, large distance of higher education places with the sample area especially remote places, are pointed out as reasons of educational backwardness of these areas. This is the reason why workers prefer non-institutional credit over institutional credit.

The management have set up crèches for the kids so that their mothers could go to work. Another important factor is that though the parents want to send their children to schools in towns, it is difficult to travel due to long distance. Parents do not have good opinion on the operating structure of schools in the estates. As a result some children of the workers have left the school and settled in a minimal standard other than the plantation work.

Analysis on the **Asset ownership** has a great impact on the standard of living of the people in the tea plantation. There are tea plantation workers who live in the same homes as their ancestors but are denied of its ownership. It was found that 78.66% of sample workers are landless people (no land ownership), 17.33% have less than 5cents of land and only 3.99% have only more than 5cents of land. The study showed that land possession among the plantation workers was meagre. This should be one of the important reasons for the poor living standards of the households.

Nature of House: The housing facilities of the workers say a lot about the living standard of the workers in the plantation. It can be well analyzed that the management ensures accommodation for the workers within the garden but it is simply A-lines. The survey revealed that 100% of samples live in the A-line provided by the management. There are 5-6 houses within an A-line and the facilities are really poor. It is more like a shed where 5 to 6 people live together under a small roof without a proper ceiling.

The study area provides information that the workers are also facing a few other **major challenges**. The first among them is regarding the adoption of **advanced types of equipment**. The advanced equipment could be more effective than the traditional, especially in increasing the daily target of plucking which induces additional wages. This will help in the additional consumption of necessities of households. Out of the 150 sample workers, all are worried about the availability or lack of advanced facilities in the working place. Other challenges include the impact of climate change, competition in producing quality products with less advanced techniques from plucking of leaves to final products, attitude of employers and co-workers etc. The clear picture of the distribution of major challenges is shown below.



Source: Primary data

State governments have provided **various assistance** to improve the standard of living of tea workers by providing land and other facilities, but the implementation of the programmes seem to be very slow. This has resulted in dissatisfaction (81.33%) of government schemes among the workers. The workers of the Plantation are deprived of essential rights. Most of the workers are unaware about the schemes of the government that are being implemented by the government for the welfare of the tea plantation workers. It can be analyzed from the data that there exist discrimination in terms of activities assigned to them and also in terms of wage rate. This study shows that 68% of the workers are females. Another issue that can be noticed is about the male dominance over women in plantation work as well as household management. Effective collective bargaining can take place at the factory only through collective bargaining.

Trade Unions have a great role in surging the conditions of the casual tea plantation workers. The trade union movement emerged in tea industry of Kerala only in 1940's. During earlier periods especially before the introduction of trade union, the management handled all the problems of workers. Later with the emergence of trade unions workers started realizing their rights. Since then, the competition between management and trade union decided the future of tea workers. This study reveals that among the total tea plantation workers, 87% workers are satisfied with the services provided by the Trade Unions. It also revealed the effectiveness of Trade Unions in terms of their struggle to gain the rights of the workers. There is penalty for the workers who renovate the A-line(living house) houses for an additional room. But trade Unions negotiated with the management on behalf of the workers and won that right.

Conclusion

The development of plantation industry in South East Asia is complementary to capitalistic growth. Usually plantation required more labour per unit of land than peasant agriculture. The predicament of plantation labour is always a hot topic because of their low wages, lack of advancement of techniques, and social seclusions denying an alternate source of employment. India is the largest producer and consumer of tea in the world. The Indian tea industry faces the challenges of determination of auction prices, low productivity, mismanagement; lack of advanced techniques and value-added products etc. In short, their very survival is being questioned.

The impact and consequences of the deep crisis are multi-dimensional in nature. Tea workers gradually lose wages, employment and all statutory welfare measures. Their only strength is the effective working of Trade Unions.

The impact of the crisis in the tea industry is highly affecting women because plucking is a continuous activity and women usually do the plucking. They are deprived of their basic rights. The workers of the plantation are deprived of many essential socio-economic rights. Most of the workers are unaware of the schemes of the government that are being implemented for the welfare of the tea plantation workers. They are not given proper protective facilities like gloves or any other equipment to carry out the herculean activities in the tea plantations.

Gender discrimination in assigning duties in workplace and household management is evident. The household works are carried out more or less completely by the women themselves. The continuous heavy work in the workplace and at home makes women physically weak. The delivery of health services are also poor in the estates. The old people are the worst affected ones.

The workers are not so educated to use the modern equipments and this contributes to inefficiency and mismanagement. It was observed that the Asset ownership positions of the plantation workers are very poor and affects the standard of living of the workers. Government's efforts to provide land to these poor workers failed as the implementation of the programmes has been slow. This has resulted in dissatisfaction with government schemes among the workers.

The study also reveals the effectiveness of trade unions in terms of their struggle to gain the rights of the workers. The trade union movement has a greater role in the revival and sustainability of the industry.

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A Study on the Predicament of Tea Plantation Workers and Effectiveness of Trade Unions in Devikulam Taluk, Idukki District, Kerala

**Usha Devi T.V.
& Raji Prasad G.V.**

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Key words : Tea Plantation, Social conditions, Workers, Tea growers, LTGs, STGs

I. Introduction

The Tea industry acts as a major employer in India. At present, India stands as the top producer of tea, producing about 30% of the world's tea production annually. The plantation sector provides income and livelihood for the vast majority of the people residing in the Devikulam Taluk in Idukki district, Kerala. Even though it is the greatest profit-earning business in the nation, the employees engaged in it face a lot of humiliation and constraints. In the Tea Plantation sector, workers have chosen the bottom position in functional as well as social strata. This study is undertaken to check the socio-economic and living conditions of the employees and examine the effectiveness of Trade Unions in solving the living problems of the Tea Plantation workers. According to the Tea Board of India, there were two categories of tea growers namely Large Tea Growers (LTGs) and Small Tea Growers (STGs). The growers with a plantation area of up to 10ha are classified as Small Tea Growers and all the growers having a Tea plantation of more than 10ha are known as Large Tea Growers. The majority of the Tea Growers in the Idukki District fall in the category of STGs.

II. Statement of the Problem

Among the plantation crops, tea is the most labour intensive one. This sector is the second largest employer in India. In spite of being the greatest profit earning business in India, the tea workers are facing a lot of problems and that has severely affected their standard of living. They are not getting their rightful incentives and wages. Tea workers also face problems like attack of wild animals. No proper security measures have been provided to them. While tea workers remained unorganized for decades, the planters have always been well organized and powerful. Trade union activities progressed here to address this challenge. They had an important role in the betterment of the living conditions of tea workers. It is clear that the socio-economic and political changes in the state influenced the functioning of trade union movement in this sector also. Hence the study focuses on the constraints of tea workers and effectiveness of trade union movement.

III. Review of Literature

Weijing (2004) examines the economic roles and the lives of women tea-pickers over the course of

China's imperial history. It argues that women's work in imperial China took on different meanings as ecological settings, economic resources, and social class shifted.

Faisal et al (2016) on behalf of the International Labour Organization conducted a study on the working conditions of the tea plantation workers in Bangladesh. The overall findings of the study suggest that the situation of tea plantation workers needs to be improved and that their rights should be protected based on the mutual agreement amongst tea plantation workers, garden owners and the Government.

Paul (2019) portrays an overall picture of poverty and dangers faced by the Indian tea plantation workers. The study reveals that the plantation owners preferred hiring women because of their reliability and purported superior "feel" for plucking tea leaves. They had to ride away at least 3-4 hours to reach hospital. Moreover, their daily wages were also poor.

Hema Srikumaretal. (2017) found that the Indian Tea Industry is facing some serious challenges and even its survival is being questioned. The impact and consequences of this deep crisis are multi-dimensional in nature. The process of abandonment and closure of estates become common. Tea workers lose wages, employment and all other statutory welfare measures. It has severely affected the standard of living of estate labourers, employment opportunities and level of trade union activities.

Rajalaxmi et al (2017) opined on the 'Penpilaiamaram', 2015. Around 5000 women workers of the Kannan Devan Hills Plantation, a large tea estate in Munnar in Kerala, launched a spontaneous agitation demanding increased wages and bonus. They staged a massive sit-in Munnar town, bringing operations on the tea-estate to a halt. The uniqueness of the strike was its non-violent nature and distancing from party-affiliated tea-plantation unions.

IV Objectives of the Study

This paper stems with the objectives to explore and analyse the constraints of the tea plantation workers as well as to examine the effectiveness of Trade Unions in solving the problems of the Plantation Sector of Kannan Devan Hills of Devikulam Taluk in Idukki District, Kerala.

V Methodology and Sources of Data

The design of the present study is descriptive in nature. The study relies on both primary and secondary sources. Simple Random Sampling procedure is used to collect the data related to the indicators of the general living conditions of tea workers. The primary data were collected with the help of a well-structured schedule which was prepared according to the objectives of the study. A sample of 150 workers was selected from the Kannan Devan Hills at Devikulam Taluk, Idukki District. Idukki district represents more than 67.50 per cent of total tea plantation area of Kerala. The tea plantation area of the district is spread over Peermade, Udumbanchola and Devikulam Taluks.

The secondary data were collected with the help of published and unpublished online sources, magazines, journals and books. Data were analysed using percentages, graphs etc. The independent variables incorporated in the present study were selected based on substantial literature review.

VI. Constraints of Tea Plantation Workers

The improvement in quality in addition to reduction in cost of production is the important issue concerning the Kannan Devan Hills Tea Industry. The issue cannot be solved due to the following constraints:

- 1. Low productivity and low yields:** The majority of the tea plantations in Kannan Devan Hills are old plantations ranging from 150 to 200 years and yield is diminishing year after year.
- 2. Fragmented land holdings:** Earlier the Tea Estates which were big in size were reduced to small units because of the division of family units over the years.
- 3. Acute labour shortage:** Tea Industry generally being labour-intensive, requires regular permanent

labour throughout the year. All the problems and issues being faced by the tea growers are mainly manifestations of an acute shortage of labour. To overcome this situation, efforts are required on the part of tea planters to mechanize various operations especially pruning and plucking. Some growers have tried this method and the results are encouraging.

4. **Lack of technological advancement:** Lack of adoption of advanced techniques is one of the important problems of the study area. This is the basic reason of the low productivity of tea gardens.
5. **Low accessibility of the market & lower prices:** Since the share of Kannan Devan Hills in the entire Industry of tea in India is almost negligible, there is no local market in this area. Thus, tea planters do not have reach in the market and are dependent on agents in these markets and as such they get lower prices for the tea sold.

VII. Government Training Programmes

1. PMKVY-RPL Programme- Tea Board has taken the initiative to provide training and skill recognition of about 14,700 tea garden workers through National Skill Development Council (NSDC) under the PMKVY. The progress made in this regard is as under:

Sl .(No)	State/Union Territory	Targets approved (No)	Candidates Enrolled (No)	Candidates Assessed (No)	Candidates CertifiedNo
1	Assam	6780	2162	1575	1526
2	Kerala	979	477	358	357
3	Tamil Nadu	2675	570	141	140
4	Tripura	365	380	258	250
5	West Bengal	3903	2972	2488	2446
	Total	14700	6561	4820	4919

Source: Tea Board of India

2. Swachta Action Plan (SAP): As per direction of the government, tea board took initiative for implementation of the Swachta Action Plan in different offices of the Board and tea gardens. An amount of Rs.50,000laks was spent towards cleaning of Board's office premises and beautification of surroundings and other activities.

VIII. Results and Discussion

Gender Classification: Gender wise categorization of any employment reveals the gender dominance in that employment. Here what is revealed is the dominance of women tea workers. It says about how much females are suppressed in terms of the activities in the plantation, wages, etc. The gender wise distribution indicates that most of the workers in this garden were female (68%).

Education is one of the determinants of Physical Quality of Life. The noted factor here is that among 150 sample workers, no one is illiterate. Majority of the workers (61.33%) have dropped their study at 12th class and 37.33 % have stopped their study at secondary level. As per the sample workers, no one got a chance to study at college level.

As of the response of workers, it is understood that they are ready to provide better education to their children but education is a long process and parents are not sure about completing the process without any hindrance. Financial difficulties of parents in addition to ignorance with respect to higher education, large distance of higher education places with the sample area especially remote places, are pointed out as reasons of educational backwardness of these areas. This is the reason why workers prefer non-institutional credit over institutional credit.

The management have set up crèches for the kids so that their mothers could go to work. Another important factor is that though the parents want to send their children to schools in towns, it is difficult to travel due to long distance. Parents do not have good opinion on the operating structure of schools in the estates. As a result some children of the workers have left the school and settled in a minimal standard other than the plantation work.

Analysis on the **Asset ownership** has a great impact on the standard of living of the people in the tea plantation. There are tea plantation workers who live in the same homes as their ancestors but are denied of its ownership. It was found that 78.66% of sample workers are landless people (no land ownership), 17.33% have less than 5cents of land and only 3.99% have only more than 5cents of land. The study showed that land possession among the plantation workers was meagre. This should be one of the important reasons for the poor living standards of the households.

Nature of House: The housing facilities of the workers say a lot about the living standard of the workers in the plantation. It can be well analyzed that the management ensures accommodation for the workers within the garden but it is simply A-lines. The survey revealed that 100% of samples live in the A-line provided by the management. There are 5-6 houses within an A-line and the facilities are really poor. It is more like a shed where 5 to 6 people live together under a small roof without a proper ceiling.

The study area provides information that the workers are also facing a few other **major challenges**. The first among them is regarding the adoption of **advanced types of equipment**. The advanced equipment could be more effective than the traditional, especially in increasing the daily target of plucking which induces additional wages. This will help in the additional consumption of necessities of households. Out of the 150 sample workers, all are worried about the availability or lack of advanced facilities in the working place. Other challenges include the impact of climate change, competition in producing quality products with less advanced techniques from plucking of leaves to final products, attitude of employers and co-workers etc. The clear picture of the distribution of major challenges is shown below.



Source: Primary data

State governments have provided **various assistance** to improve the standard of living of tea workers by providing land and other facilities, but the implementation of the programmes seem to be very slow. This has resulted in dissatisfaction (81.33%) of government schemes among the workers. The workers of the Plantation are deprived of essential rights. Most of the workers are unaware about the schemes of the government that are being implemented by the government for the welfare of the tea plantation workers. It can be analyzed from the data that there exist discrimination in terms of activities assigned to them and also in terms of wage rate. This study shows that 68% of the workers are females. Another issue that can be noticed is about the male dominance over women in plantation work as well as household management. Effective collective bargaining can take place at the factory only through collective bargaining.

Trade Unions have a great role in surging the conditions of the casual tea plantation workers. The trade union movement emerged in tea industry of Kerala only in 1940's. During earlier periods especially before the introduction of trade union, the management handled all the problems of workers. Later with the emergence of trade unions workers started realizing their rights. Since then, the competition between management and trade union decided the future of tea workers. This study reveals that among the total tea plantation workers, 87% workers are satisfied with the services provided by the Trade Unions. It also revealed the effectiveness of Trade Unions in terms of their struggle to gain the rights of the workers. There is penalty for the workers who renovate the A-line(living house) houses for an additional room. But trade Unions negotiated with the management on behalf of the workers and won that right.

Conclusion

The development of plantation industry in South East Asia is complementary to capitalistic growth. Usually plantation required more labour per unit of land than peasant agriculture. The predicament of plantation labour is always a hot topic because of their low wages, lack of advancement of techniques, and social seclusions denying an alternate source of employment. India is the largest producer and consumer of tea in the world. The Indian tea industry faces the challenges of determination of auction prices, low productivity, mismanagement; lack of advanced techniques and value-added products etc. In short, their very survival is being questioned.

The impact and consequences of the deep crisis are multi-dimensional in nature. Tea workers gradually lose wages, employment and all statutory welfare measures. Their only strength is the effective working of Trade Unions.

The impact of the crisis in the tea industry is highly affecting women because plucking is a continuous activity and women usually do the plucking. They are deprived of their basic rights. The workers of the plantation are deprived of many essential socio-economic rights. Most of the workers are unaware of the schemes of the government that are being implemented for the welfare of the tea plantation workers. They are not given proper protective facilities like gloves or any other equipment to carry out the herculean activities in the tea plantations.

Gender discrimination in assigning duties in workplace and household management is evident. The household works are carried out more or less completely by the women themselves. The continuous heavy work in the workplace and at home makes women physically weak. The delivery of health services are also poor in the estates. The old people are the worst affected ones.

The workers are not so educated to use the modern equipments and this contributes to inefficiency and mismanagement. It was observed that the Asset ownership positions of the plantation workers are very poor and affects the standard of living of the workers. Government's efforts to provide land to these poor workers failed as the implementation of the programmes has been slow. This has resulted in dissatisfaction with government schemes among the workers.

The study also reveals the effectiveness of trade unions in terms of their struggle to gain the rights of the workers. The trade union movement has a greater role in the revival and sustainability of the industry.

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The Desirability of Simultaneous Elections in India

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The concept of synchronizing elections at various levels of government, including national and state assemblies, has sparked significant discourse within India's electoral landscape. This paper looks for similar experiences in countries like United States, Germany, Australia, South Africa, and Sweden. After examining the High-Level Committee (HLC) report on simultaneous elections in India, the authors assess its effects on federalism, administrative and logistical hurdles, representation of regional and minority concerns, as well as the maintenance of governance continuity within the Indian setting. The study attempts to contribute to the ongoing discourse on electoral reforms. The Committee's roadmap for a cautious and inclusive transition is commendable, emphasizing the need to safeguard democratic and federal traditions. However, the proposed 'one nation, one election' concept appears to prioritize administrative expediency over democratic integrity.

Keywords : One Nation One Election, Federalism, India, Simultaneous Elections, Electoral Reforms

I. Introduction

The One India, One Election (OIOE) concept, which proposes holding simultaneous elections across the country, has sparked a significant debate in India's political landscape. Proponents argue that it could enhance governance efficiency, reduce financial burdens, and promote stability. They contend that the frequent electoral cycles at the national, state, and local levels impose a substantial financial burden on the exchequer (Reform of the Electoral Laws Report, 1999). Supporters of simultaneous polls argue that it will increase efficiency in the administrative setup throughout the country, since it slows down considerably during polling. They also argue that extended intervals between elections would enable political parties and representatives to concentrate more on governance and policy implementation, rather than being perpetually engaged in campaigning (Mehrishi, 2023) & (Reform of the Electoral Laws Report, 1999). Similarly simultaneous elections are believed to reduce political instability at the state level by providing clearer mandates. Frequent staggered elections often result in coalition governments and changing power dynamics in states (Gardbaum, 2017).

The critics on the other hand argue that the economic benefits of such a move could come at the expense of the country's democratic principles and federal structure. The staggered nature of elections is a cornerstone of India's democratic process, ensuring that different levels of government remain accountable to the electorate at regular intervals. The proposed synchronization could disrupt this system, potentially leading to less frequent opportunities for the public to hold their representatives accountable, thereby undermining the principles of electoral democracy. Furthermore, India's federal structure is designed to allow states to exercise autonomy and address local issues effectively (Gilmartin & Moog, 2012; Electoral System of India 2018). The 'One India, One Election' policy risks undermining this autonomy, as national-level issues and campaigns might dominate the political discourse, relegating state-specific concerns to the background. This could disadvantage regional parties and marginalize the voices of local communities, eroding the diversity that has been a hallmark of India's political landscape. Critics also argue that the implementation of such a system would require substantial constitutional amendments and a level of political consensus that may be difficult to achieve, given the diverse and often contentious nature of Indian politics. Achieving

a consensus across political parties and stakeholders on such a fundamental shift would be a daunting task, further complicating the implementation of this initiative (Rao, 2005; Khare, 2022).

The High-Level Committee on 'One Nation, One Election', headed by former President Ram Nath Kovind, submitted an extensive report on simultaneous elections. The report, comprising 18,626 pages, is an outcome of extensive consultations with stakeholders, experts, and research work of 191 days. The committee recommends a two-step approach to lead to the simultaneous elections. As the first step, simultaneous elections will be held for the House of the People and the State Legislative Assemblies. In the second step, elections to the Municipalities and the Panchayats will be synchronized with the House of the People and the State Legislative Assemblies in such a way that Municipalities and Panchayats elections are held within a hundred days of holding elections to the House of the People and the State Legislative Assemblies. The report underscores the inherent tension between economic efficiency and the preservation of democratic values and federal principles (High Level Committee Report on Simultaneous Elections In India, 2024). While the potential cost savings and governance stability are undeniably appealing, they must be carefully weighed against the risks of undermining the nation's democratic foundations and the rights of citizens to hold their representatives accountable at regular intervals. Any such initiative must strike a delicate balance between fiscal prudence and the safeguarding of India's diverse political landscape and federal structure (High Level Committee Report on Simultaneous Elections In India, 2024).

II. High-Level Committee (HLC) report on simultaneous elections in India

The High-Level Committee (HLC) report on simultaneous elections in India presents a comprehensive analysis of the current electoral framework and proposes a series of recommendations to address the challenges posed by frequent and intermittent elections. The report recognizes the foundational importance of democratic governance in India, emphasizing the need for electoral reforms to uphold the principles of democracy while enhancing governance efficiency and stability. One of the key recommendations of the report is the adoption of a two-step approach to implement simultaneous elections. The first phase involves synchronizing elections for the House of the People (Lok Sabha) and State Legislative Assemblies, followed by the alignment of elections for Municipalities and Panchayats within a specified timeframe. This phased approach ensures a systematic transition towards synchronized elections across all tiers of government, mitigating logistical challenges and facilitating effective governance.

To address the constitutional and legal complexities associated with simultaneous elections, the report advocates for targeted amendments to existing legislation. This includes proposed changes to the Representation of the People Act, 1951, and other related statutes, aimed at harmonizing the electoral framework and facilitating the conduct of synchronized elections without extending the tenure of legislative bodies. Furthermore, the report underscores the importance of technological readiness in facilitating the transition to simultaneous elections. It recommends the procurement of additional Electronic Voting Machines (EVMs) and Voter-Verified Paper Audit Trail (VVPAT) machines to accommodate the heightened scale of voting during synchronized elections. The report highlights the need for robust voter education campaigns to ensure that citizens are well-informed about the changes and implications of simultaneous elections, fostering informed participation and enhancing democratic engagement.

The report also indicates the significance of pilot projects in select states to assess the practicality of simultaneous elections and identify potential challenges and solutions before a nationwide rollout. This phased approach allows for empirical testing of the proposed framework, enabling policymakers to address concerns and refine implementation strategies effectively. Moreover, the report addresses concerns raised by various stakeholders, including political parties, experts, and organizations, regarding the potential implications of simultaneous elections. It acknowledges the apprehensions raised about the dominance of national parties over regional ones and the need to safeguard federal principles. However, the report emphasizes that simultaneous elections can mitigate policy paralysis, optimize resources, and enhance governance efficiency, ultimately benefiting all stakeholders. The HLC report on simultaneous elections in India presents a pragmatic and

comprehensive framework for electoral reform, grounded in the principles of democracy and good governance. By advocating for phased implementation, legal reforms, technological readiness, and stakeholder engagement, the report charts a definitive path towards realizing the vision of synchronized elections. As India continues its journey towards an aspirational future, governance reforms based on the principles of democracy and efficiency are paramount, and the recommendations of the HLC serve as a roadmap for achieving these objectives.

III. Constitutional Amendments and Legal Challenges

The ONOE proposal necessitates a series of constitutional amendments to align the electoral cycles of the Lok Sabha and State Assemblies. The Supreme Court of India has also weighed in on the issue. In 2018, it observed that simultaneous elections would require a constitutional amendment and that the court could not intervene in matters of policy and legislation. The court emphasized that the decision to implement ‘One Nation, One Election’ rests with the executive and legislative branches of government (Bhaumik, 2023). A high-level committee led by former President Ram Nath Kovind has suggested 18 amendments to the Constitution and other statutes to implement simultaneous elections (High Level Committee Report on Simultaneous Elections In India, 2024). These amendments would address the preparation of electoral rolls, terms of legislative bodies, and the synchronization of local body elections with the general elections (High Level Committee Report on Simultaneous Elections In India, 2024; Anand, 2024). However, constitutional experts have raised concerns about the feasibility and legality of such sweeping changes (Sridharan, 2011; Anand, 2024).

One of the primary concerns regarding ONOE is its potential to centralize power, which could undermine the autonomy of state governments. Critics argue that simultaneous elections could lead to a situation where national issues overshadow regional concerns, thereby diminishing the importance of state-specific agendas (Kaushik & Goyal, 2019; Puri, 2023). This could also lead to increased conflicts of interest between the Centre and states, potentially weakening India’s federal structure (Sarda, 2024). Similarly, Regional parties fear that ONOE would disadvantage them, as they may struggle to compete with national parties in terms of resources and election strategy (Sinha, 2024). The focus on national narratives during simultaneous elections could dilute the attention given to local issues, which are often the stronghold of regional parties. This could result in a political landscape that favours national parties, altering the dynamics of Indian polity (High Level Committee Report on Simultaneous Elections In India, 2024). The Constitution grants state’s the power to conduct their own elections, and any changes to this process would require a constitutional amendment. This could lead to a centralization of power and a reduction in the autonomy of states (CPI(M) Stand on Simultaneous Elections, 2018; Kaur, 2011). The Communist Party of India (Marxist) objects to the proposal of holding simultaneous elections to the Lok Sabha and state legislatures, as it would require major amendments to the Indian Constitution and go against the principles of the Constitution (CPI(M) Stand on Simultaneous Elections, 2018). Public opinion on ONOE appears to be largely in favour, with a report suggesting that 81% of responses received by the high-level committee supported the idea (One Nation, One Election, 2024; Pathak, 2023). The committee’s call for public suggestions received thousands of responses, indicating a high level of engagement and interest among citizens (Ram Nath Kovind-Led Panel Seeks Public Opinion on ‘One Nation, One Election, 2024). This reflects the complexity of the issue and the diverse perspectives that exist within the public discourse.

Proponents of ONOE argue that it would lead to significant financial savings by reducing the frequency of elections and the associated cost of administration and security (High Level Committee Report on Simultaneous Elections In India, 2024). This could also mitigate disruptions to governance and policy paralysis resulting from the application of the Model Code of Conduct during election periods (Srinivasan, 2024). Any changes to the electoral framework must uphold democratic principles and ensure the integrity of the electoral process. The committee recognized the importance of a single electoral roll and a single elector’s photo identity card (EPIC) for elections to all tiers of government to safeguard the rights of voters (Srinivasan, 2024). Even though the ONOE proposal aims to bring about efficiency and economic benefits, it is imperative to consider its broader implications on India’s democratic fabric, particularly the autonomy of states and

the representation of regional interests. The debate on ONOE is ongoing, and any move towards its implementation will require careful consideration of its implications for India's democratic and federal structure (Kaushik & Goyal, 2019; Pal, 1981).

IV. Representation and Regional Parties and Impact on Minority and Marginalized Communities

The concept of 'One Nation, One Election' (ONOE) in India has sparked considerable discussion, especially regarding its impact on the political presence of regional parties and the consequences for minority and marginalized communities. Regional parties play a pivotal role in advocating for local issues and ensuring that the unique needs of individual states or regions are addressed. However, there is a concern that the implementation of simultaneous elections could potentially amplify the influence of national parties, thereby diminishing the focus on regional concerns (Chakrabarty, 2008; Cornelis, 2022). This shift could lead to a more uniform political narrative, potentially undermining the principles of federalism and affecting the representation of marginalized communities (Anand, 2024; High Level Committee Report on Simultaneous Elections In India, 2024; Balasubramaniam et al., 2023). Research suggests that ONOE could alter voter behaviour, with a tendency for voters to cast their ballots for the same party in both state and national elections. Such a trend could impact the diversity of political representation, particularly for minority and marginalized communities (Aarif Mohd Waza, 2023; Wani & Dar, 2024).

Studies have shown that marginalized ethnic groups, who are stigmatized by others and disproportionately poor, have been mobilized by social movements to generate competition for marginalized citizens' votes across political parties (Ahuja, 2019a). However, Dalits, the former untouchables in India, who number over 200 million, have been mobilized by social movements and political parties, but their mobilization is puzzling. Dalits' parties perform poorly in elections in states historically home to movements demanding social equality while they do well in other states where such movements have been weak or entirely absent (Ahuja, 2019b; Collins, 2017). Despite the potential economic and administrative benefits of ONOE, such as cost savings and improved governance, the specific effects on minority and marginalized groups have not been thoroughly examined in existing reports (High Level Committee Report on Simultaneous Elections In India, 2024; Mohanty, 2024; Nath, 2024). Proponents of ONOE argue that a well-informed electorate and more efficient governance structures would ultimately benefit all societal segments (One Nation, One Election, 2023).

The High-Level Committee (HLC) on ONOE has proposed a phased approach to implement simultaneous elections. The first phase would align the elections for the House of the People (Lok Sabha) and State Legislative Assemblies, followed by synchronizing the elections for Municipalities and Panchayats within 100 days of the Lok Sabha and State Assembly elections (High Level Committee Report on Simultaneous Elections In India, 2024). This strategy is aimed at streamlining the electoral process and reducing the frequency of elections. Additionally, electoral quotas guaranteeing a threshold level of political representation for women and underprivileged socio-ethnic/religious minorities have been adopted in over 100 countries, including India (Aneja & Ritadhi, 2018; Vundru, 2019; High Level Committee Report on Simultaneous Elections In India, 2024).

Stakeholder consultation has been integral to the deliberation process, with a significant number of political parties expressing support for ONOE. Public opinion also appears to be in favour, with a large proportion of respondents endorsing the initiative (Kaushik & Goyal, 2019; One Nation, One Election, 2023; Srinivasan, 2024). Nevertheless, while ONOE may present several advantages, apprehensions persist about its potential repercussions on the inclusivity of political representation, the role of regional parties, and the safeguarding of minority and marginalized communities' interests. Striking a balance between these considerations will be crucial to preserving the integrity of India's democratic framework and ensuring equitable representation for all citizens (Debroy & Desai, n.d.).

V. International Perspectives and Case Studies of Simultaneous Elections

In the United States, the tradition of simultaneous elections for the presidency and Congress is a

cornerstone of the electoral process. Presidential elections align with congressional elections every four years, with midterm congressional elections occurring in the intervening years (Patty, 2023). These federal general elections are scheduled for the first Tuesday after the first Monday in November of even-numbered years. While simultaneous candidacy for the presidency and Congress is generally prohibited, exceptions exist in New Jersey, Massachusetts, Ohio, West Virginia, and Hawaii (Running for U.S. Congress and the Presidency Simultaneously, n.d.). This system has been observed to reduce voter fatigue and increase engagement, as well as foster federal-state government cooperation, enhancing national unity. The U.S. federal structure is founded on a dual sovereignty model, which is distinct from India's quasi-federal system (Morton & Williams, 1999). This model delineates the powers of federal and state governments, ensuring a balance of power and preventing either from becoming overly dominant (Balasubramaniam et al., 2023; Keerthana, 2019).

Australia's political system also features simultaneous elections, where federal, state, and territory elections are held on the same day every three years. Initiated in 1903, this system was designed to be cost-effective, reduce voter fatigue, and shift the focus to national issues (Heriot, 2019). Several advantages can be attributed to Australia's simultaneous elections. First and foremost, it enhances efficiency by reducing both the cost of conducting elections and the inconvenience endured by voters, as there is only one election campaign and polling day. Furthermore, it fosters clarity in the national political landscape by enabling voters to convey a clear message about their political preferences. It is efficient and clarifies the political landscape, but it may also favour incumbents and overshadow local concerns (Tyagi, 2023). The complexity of voting on multiple issues in one go can be overwhelming for voters. In South Africa simultaneous elections approach entails organizing both the National and State Level elections at the same time, every five years. India practiced this system for the first two decades post-independence until 1967 (Ferree, 2018; Aubyn & Abdallah, 2023). However, the dissolution of some Assemblies in 1968 and 1969, followed by the Lok Sabha election, disrupted this pattern. South Africa's electoral system is among the world's most liberal, blending parliamentary regulations with an extreme version of proportional representation. Voters receive distinct ballots for national and provincial legislature elections. The national Parliament consists of 400 MPs, while the nine provincial legislatures range from 30 to 90 seats, based on each province's population (Shankar Das, 2023; Shankar Das, 2023). The Independent Electoral Commission (IEC) of South Africa, akin to India's Election Commission (ECI), oversees the electoral process to ensure its integrity and fairness (Ghai, 2000). Despite being designed to promote a wide representation of parties in the National Assembly, South Africa's political landscape often surprises, with the African National Congress (ANC) maintaining a dominant presence and a low number of parties winning seats nationally (ECI Releases an Atlas on General Elections 2019, 2021) & (Electoral Systems, n.d.; Aubyn & Abdallah, 2023).

Sweden's simultaneous elections are a distinctive feature of its democratic process, where general elections for the national parliament (Riksdag), regional councils, and municipal councils are all held on the same day. This occurs every four years, typically in September, and is designed to increase voter turnout and streamline the electoral process. On election day, Swedish citizens cast their votes for the Riksdag, as well as for their respective county and municipal councils (Cox, 1997). This simultaneous voting process is designed to increase efficiency and voter turnout by consolidating multiple elections into a single event (Berg & Oscarsson, 2020). The system is based on proportional representation, ensuring that the distribution of seats in the assemblies reflects the proportion of votes received by each party (Michaud et al., 2021). The elections are overseen by the Swedish Election Authority, which ensures that the process is fair, free, and transparent. The authority is responsible for the administration of elections and referendum in Sweden (Michaud et al., 2021). Studies indicate that this system has several benefits, including higher voter turnout and a more engaged electorate. For instance, a study by Dehdari, Meriläinen, and Oskarsson explores the concept of selective abstention, where voters may choose to participate in one election but not another when elections are held simultaneously. Their findings suggest that individuals from higher socio-economic backgrounds, immigrants, women, older individuals, and those less geographically mobile are less likely to selectively abstain (Dehdari et al., 2020). In contrast, the high electoral turnout in Sweden's regional elections

and the phenomenon of split-ticket voting, where about 30% of Swedish voters choose different parties at different political levels (Berg & Oscarsson, 2020). This suggests that even with simultaneous elections, voters make distinct choices at different levels of government, reflecting a nuanced understanding of political issues.

The 'One Nation, One Election' initiative in India is garnering attention, prompting a detailed look at nations that have adopted simultaneous elections. Such comparisons shed light on potential implications for India's electoral reforms. The United States, despite its federal structure similar to India's, opts for a decentralized approach to elections, with states independently managing their electoral processes. This flexibility, however, raises questions about its alignment with the principles of federalism. Proponents believe simultaneous elections could cut costs, boost voter turnout, and enhance governance by reducing the frequency of elections. Yet, the U.S. experience signals caution for India, considering their distinct federal dynamics (Keerthana, 2019; Paikaray, 2023). Germany, mirroring India's federal parliamentary system, holds separate federal and state elections but coordinates their schedules to ease administrative and fiscal pressures. This semi-synchronized method aims to balance the benefits of joint elections with the need to maintain regional self-rule and diversity (Germany: The Original Mixed Member Proportional System, n.d.). Australia, with its federal parliamentary monarchy, practices simultaneous elections for federal and state bodies, carefully timed to prevent clashes. This method hints at the advantages of such elections, like political steadiness and lower campaign expenses, but also points to the risk of overshadowing local issues with national agendas (Referendums and Changing Australia's Constitution, n.d.).

Reviewing these international examples alongside India's situation reveals key insights. It's clear that the concept of simultaneous elections isn't a one-size-fits-all solution, as each country's unique political, constitutional, and cultural context heavily influences its electoral framework. The effect on federalism is complex, depending on how simultaneous elections are designed and executed, with some viewing it as centralizing power and eroding state sovereignty, while others see it as a means to foster better coordination and political stability (Keerthana, 2019). The global view offers lessons and practices that could guide India in considering simultaneous elections. For instance, the streamlined electoral processes observed in countries with simultaneous elections have led to significant benefits like reduced election cycles, saving time, resources, and effort. Indonesia's example highlights the considerable cost reductions achieved by merging resources and streamlining electoral operations, allowing for the reallocation of funds towards other development projects, thus strengthening the economy (Malik et al., 2020).

VI. Conclusion

The High-Level Committee's report on 'one nation, one election' indeed presents a hefty proposal that seeks to overhaul India's electoral system. Spearheaded by former President Ram Nath Kovind, this proposal, encapsulated within an exhaustive 18,626-page document, is purportedly the outcome of extensive research and dialogue. It still needs to be critically examined more closely, though, it seems to have a solid foundation. Advocating for a gradual implementation of concurrent elections, starting with the Lok Sabha and State Legislative Assemblies and later integrating Municipal and Panchayat elections, the report has garnered support from various stakeholders, including public respondents and prominent political figures. Proponents anticipate benefits such as enhanced governance efficiency, reduced election expenditure, and increased voter turnout. Yet, the supposed advantages of simultaneous elections may not be as clear-cut as they appear. Administrative efficiency, touted as a primary benefit, overlooks the intricate complexities of India's federal structure. Streamlining processes and reducing election frequency may inadvertently marginalize local issues in favour of national narratives, potentially eroding the diversity of political discourse. Furthermore, the proposed cost reduction fails to account for the nuanced expenses associated with conducting unified elections, including security, logistics, and manpower, which could strain already stretched resources.

Another benefit that is suggested is policy continuity; however, the shift to simultaneous elections may upset the delicate power dynamics between local and national interests. Smaller regional parties, which are essential to the political mosaic of India, might be marginalized, which would further homogenize the

country's already highly centralized political system. Moreover, the sheer scale of simultaneous elections may result in overwhelming potential voter fatigue and dampening turnout. The very essence of democracy lies in citizen engagement, and any system that impedes active participation undermines its core principles. The Committee's roadmap for a cautious and inclusive transition is commendable, emphasizing the need to safeguard democratic and federal traditions. However, the proposed 'one nation, one election' concept appears to prioritize administrative expediency over democratic integrity. Still the potential benefits of synchronized elections are enticing, their realization hinges on addressing numerous challenges and securing broad-based consensus among political stakeholders. The transition must not undermine the essence of democracy but rather reinforce it, ensuring that the voices of all citizens, regardless of size or scale, continue to shape India's political landscape.

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Caste Based Inequalities in Access to Electricity in Indian Villages

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The study examines systematic differences existing in the access to electricity in villages on the basis of caste dominance. It is found that villages dominated by ST category have significantly low access to electricity compared to villages not dominated by SC/ST category population. The study revealed that there is a possibility of negative correlation between share of SC/ST population in a district and proportion of households having access to electricity in these districts. It was also noted that some areas which are comparatively dominated by SC/ST population have seen no considerable improvement in access to electricity from 2001 to 2011.

Keywords: Caste dominance, India Human Development Survey, Population dominance, Linear relation, Regression.

Introduction

India is a fast developing nation which hopes to become a USD 5 trillion economy in near future. So, it is important to analyse whether these developments are reaching the grassroot levels of the economy. Especially in the case of India where caste still plays an important role in determining your standard of living, it won't be surprising if we conclude that there exists caste inequalities in provision of public goods.

According to NFHS 5 (National Family Health Survey 5) report, 97% of Indian households (95% of rural and 99% of urban) have access to electricity. International Energy Agency have commented that India has been prioritizing access to electricity and 700 million people gained access to electricity since 2000. The country also has various rural electrification schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and SAUBHAGYA with objectives of electrifying all unelectrified households. Even though, such commendable initiatives are undertaken, whether it's accessible to all now is a different question to be answered. As per world bank data, countries like Argentina, Bhutan, Israel and many more have achieved 100% access to electricity. Still India, a larger economy compared to these haven't achieved this target yet.

Usage of electricity has become an integral part of our life. It is required in all fields for proper functioning. Whether it is schools, hospitals or any other institution and even houses require electricity as a basic necessity. It is high time to have universal access to the same in reasonable quantity and price. When we think of possible obstacles of the same, caste does play a vital role in resource allocation decisions from the history of India. This acts as a motivation to study whether there exists any caste based inequalities in access to electricity.

Covid pandemic reminded us how much indispensable is electricity in our life. We all were confined to our homes relying on computers for jobs, education, shopping and even medicines. Functioning of essentials like ventilators make electricity a prerequisite for hospitals. What about the situation of villages which don't have regular electricity connections then? People residing in these villages were deprived of their basic rights to education and health support through deprivation of access to electricity. A more serious question would be are they deprived of these facilities because of the caste they belong to. This is what the paper attempts to analyse.

Table 1 gives us a summary statistics on availability of electricity in rural India in 2019. According to the 2019 survey by Ministry of Rural Development, 4.8% of villages in India do not have electricity. Out of the villages that have electricity, 47.8% of them have electricity only for less than 12 hours. So even if villages are electrified most of them are not able to get regular supply of electricity. It is important to analyse if there is a caste dimension to this lack of accessibility given the history of India.

Table 1 : Availability of electricity in villages of India

State Name	1-4 Hrs	4-8 Hrs	8-12 Hrs	>12 Hrs	No Electricity
All India	3.07	9.53	31.96	50.64	4.8
JAMMU AND KASHMIR	12.83	27.49	40.73	16.53	2.42
HIMACHAL PRADESH	1.08	1.52	9.97	80.68	6.75
PUNJAB	0.5	1.91	23.98	72.19	1.42
UTTARAKHAND	0.44	2.92	21.67	71.87	3.1
HARYANA	1.6	4.41	37.05	55.92	1.01
RAJASTHAN	2.15	14.19	38.68	42.61	2.37
UTTAR PRADESH	0.81	6.12	48.06	41.29	3.72
BIHAR	1.2	5.68	31.46	55.63	6.03
SIKKIM	3.07	7.68	36.62	45.83	6.8
ARUNACHAL PRADESH	11.57	17.05	22.43	24.08	24.88
NAGALAND	10.29	24.88	35.09	24.72	5.02
MANIPUR	8.19	11.4	20.61	42.28	17.52
MIZORAM	12.53	9.19	21.84	47.97	8.47
TRIPURA	5.5	13.59	33.15	45.71	2.05
MEGHALAYA	6.4	15.04	24.14	41.54	12.88
ASSAM	11.06	31.81	34.59	12.65	9.89
WEST BENGAL	1.47	4.49	24.98	65.85	3.22
JHARKHAND	11.21	29.71	36.53	15.38	7.16
ODISHA	5.17	12.42	35.8	39.48	7.13
CHHATTISGARH	5.49	12.58	32.03	42.77	7.13
MADHYA PRADESH	1.56	7.44	28.22	60.08	2.69
GUJARAT	0.58	0.66	5.2	93.24	0.33
DAMAN AND DIU	0	0	0	100	0
DADRA AND NAGAR HAVELI	0	0	2.86	97.14	0
MAHARASHTRA	1.81	6.92	36.39	49.04	5.84
ANDHRA PRADESH	1.85	4.43	19.02	71.71	3
KARNATAKA	2.72	9.96	30.09	52.07	5.15
GOA	1.24	2.23	7.44	86.1	2.98
KERALA	0	0	0.69	99.31	0
TAMIL NADU	3.98	3.03	22.99	67.15	2.85
PUDUCHERRY	0	0	3.1	96.9	0
ANDAMAN AND NICOBAR ISLANDS	3.3	1.1	7.69	85.71	2.2
TELANGANA	0.93	1.92	12.97	80.85	3.33
LADAKH	20.87	13.78	29.53	27.95	7.87

Note: Columns represent percentage of villages in respective states with electricity availability for specified hours.

Source: Mission Antyodaya Survey 2019, Ministry of Rural Development

The objectives of the study are to understand the outcomes that can be improved with better access to electricity and to analyse whether there exists any systematic difference in access to electricity across villages in India on the basis of caste dominance.

We have used available secondary datasets to analyse the issue. Mainly data from India Human Development Survey (IHDS) Survey 2011-12 was used. Survey conducted by Ministry of Rural Development was also helpful by providing an overall summary on the availability of electricity in India. Census of India 2001 and 2011 was used for visual depictions using maps. Both qualitative techniques like maps, graphs and empirical methods of regression analysis were used to derive results and reach conclusions.

Why does access to electricity matter?

Given the reliability of electricity service, electrification results in substantial improvements in households' income, expenditure, employment, and educational achievement (Samad and Zhang 2016). Electrification can have major impacts at the micro level and macro level.

(i) Micro Level

In this digital era, it is hard for a common man to think of a life without electricity. Our life has started

to revolve around electric devices. For example, during covid pandemic, everything went to online mode; job, school classes, meetings etc. As mentioned earlier, this results in a discriminatory outcome since even today we hear news of villages /households having no access to electricity. So for them, it's a complete loss. They are losing out on many information and results in a barrier to their education. Now, what if they are at the disadvantaged position because they belong to a village dominated by SC/ST categories. Further analyses will help us in finding whether it is the situation in India or not.

Apart from their education, health outcome is another major factor. As shown in Table 2, still 83% of the ST dominated villages ¹ have firewood as the most common source of cooking fuel. Electricity can be an alternative to this as a clean energy source. Using firewood for cooking has impacts on many dimensions. It creates health problems like respiratory issues. It leads to air pollution since burning of firewood leads to carbon emissions and also the time and labour spent in collecting firewood is substantial. Improved access to electricity also leads to increased household income, with a larger effect on non-farm income (Asian Development Bank 2020). Thus, at the household level, increasing access to electricity can lead to improved education outcomes, health outcomes, income, efficient usage of time and labour etc.

(ii) Macro Level

Increased access to electricity can have several effects on the economy as a whole. As we have seen, it improves various welfare outcomes of households. This can help in the overall macroeconomic growth of the economy. Efficient allocation of time and labour along with increased income can boost market for consumption goods. Access to electricity also affects implementation of several welfare programmes. For example, as we can see in Table 2, implementation of street light programme is very much lower in ST dominated villages (who have substantially low access to electricity - we prove this later).

Table 2 : Difference in several outcomes that can be affected by changes in access to electricity

	SC	ST	Non-SCST	Diff1	Diff2
Satisfaction with School facility (Govt)	0.802	0.719	0.717	0.0840*	0.001
Satisfaction with School facility (Pvt)	0.829	0.721	0.882	-0.0532	-0.161***
Satisfaction with health facility(Govt)	0.667	0.659	0.684	-0.017	-0.025
Satisfaction with health facility(Pvt)	0.808	0.75	0.853	-0.044	-0.103***
Dug/open well as the most common source of drinking water	0.031	0.104	0.041	-0.009	0.063***
Electricity as the most common source of cooking fuel	0	0	0.002	-0.002**	-0.002**
Firewood as the most common source of cooking fuel	0.531	0.832	0.634	-0.102**	0.197***
Availability of cable or dish TV in the village	0.915	0.748	0.906	0.009	-0.158***
Implementation of Street Light Programme	0.4	0.258	0.502	-0.102**	-0.243***
Number of villages	95	143	1135		

*p<0.1; **p<0.05; ***p<0.01

Note: SC - SC dominated villages, ST- ST dominated villages, Non-SCST - Non SC STdominated villages, Diff1 = SC-Non-SCST, Diff2 = ST - Non-SCST Source: IHDS Survey 2011-12

When we think of a whole village having no access to electricity, it does not mean that the schools and hospitals in those villages also doesn't have electricity connection, which substantially affects the effective functioning of these institutions. According to Unified District Information System for Education (UDISE) Report 2021-22, 13.4% of the schools in India do not have functional electricity connection. In some states the condition is very pathetic like in Meghalaya, only 24.7% of the schools have functional electricity connection. Similar is the case of health sector in India. As per Rural Health Statistics 2021-22, 3.7% of

Primary Health Centres (PHC) in rural India have no electricity supply. It is higher in some states, for example, in Bihar 21.8% of PHCs do not have access to electricity.

Comparison of some outcomes that can be affected by improving access to electricity among villages defined on the basis of caste dominance

From Table 2, substantial difference in outcomes which are affected by access to electricity is visible in ST dominated villages mainly and is also prevalent in some cases in the SC dominated villages when compared to Non SC ST dominated villages. Satisfaction of ST dominated villages with school (pvt) and health(pvt) facilities they have is significantly low compared to Non SC ST dominated villages. One of the reasons for this could be shortage of electric supply. Use of electricity as the most common source of cooking fuel is zero in both SC and ST dominated villages. On the otherhand,53.1%,83.2%and 63.4% of villages reported firewood as the most common source of cooking fuel in SC, ST, Non SC ST dominated villages respectively. The proportion is substantially high in case of ST dominated villages. The statistics also indicates that the general population haven't started thinking of electricity as an alternative cooking fuel, because of which access to electricity may not change this outcome until and unless the common perspective changes. Availability of cable or dish TV in the village is significantly lower in ST dominated villages. Thus, in most of the above factors, ST dominated villages and in some, SC dominated villages are at a disadvantaged position. A reason for this could be their differential access to electricity which we are going to explore further.

Analysis

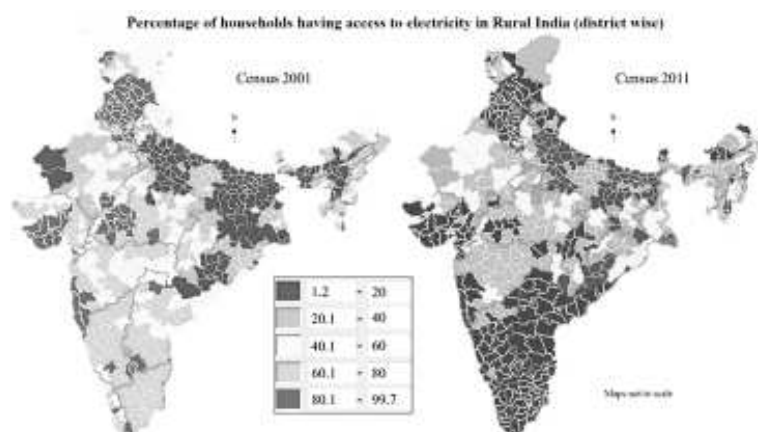
A. An overall comparison

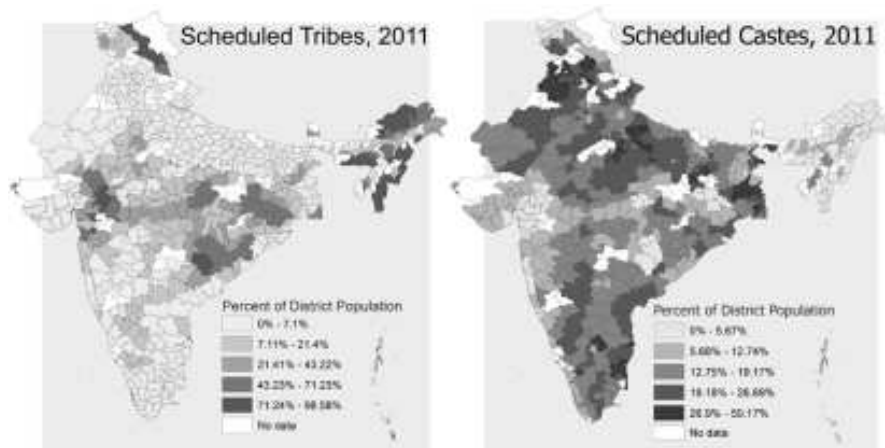
From a very vague comparison of the maps in Figure 1, it is clear that the SC dominated areas doesn't belong much to the greener shades which are comparatively better electrified regions, in 2001. Even when it comes to the data as per census 2011, we can see that except some southern parts of India, there does exist a vague negative correlation. When we look at the areas that got better access to electricity in 2011 compared to 2001, it is visible that there isn't much change in the central and eastern parts of Rural India where we have a comparative dominance of SC population.

Comparing dominance of ST population with proportion of population having access to electricity in each district from the maps, we can only rarely see dark green shades which represent electricity access to more than 80 percent of the population. Also, the ST dominated areas, especially, eastern and north eastern parts of Rural India haven't seen any commendable advancements in electricity access when we compare maps of 2001 and 2011.

Thus, we can conclude from Figure 1 that most of the districts where SC and ST population dominates suffer from low access to electricity which is an essential public good today.

Figure 1: District wise proportion of households having access to electricity and District wise proportion of SC and ST population





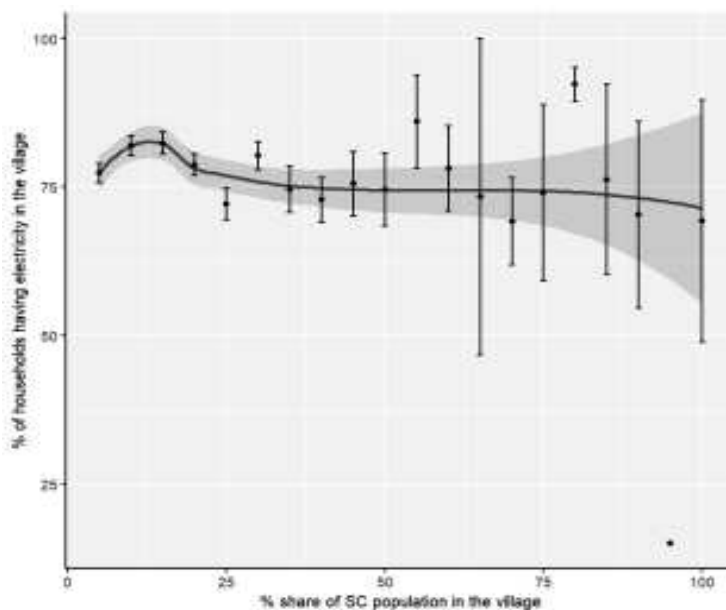
Source: Census of India 2001, 2011, Hegde, G., Rao, A.B., Agnihotri, S.B. (2020)

B. Evidence from IHDS Survey 2011-12

SC/ST population dominance in village and proportion of population having access to electricity

In Figure 2, first there is a small increase in proportion of population having access to electricity. But after SC population share in village exceeds 17.5%, we can see a steady fall in the same till around 37.5% after which the proportion of population having electricity stays almost stagnant near 75%. But again it starts falling when the SC population in the village exceeds 75%.

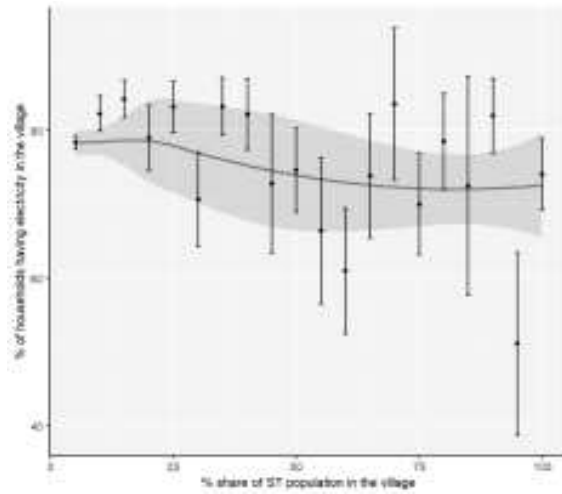
Figure 2 : Locally weighted smooth curve of the proportion of population having access to electricity in the village against the share of SC population in the village, along with means and deviations around mean at different intervals.



Now, a similar but more clear relationship can be seen in the case of ST population dominated villages in Figure 3. Here, proportion of population having access to electricity remains constant or increases very slightly initially. But when the share of ST population in villages exceed 20%, we can see that there is a clear downward trend. So, we can conclude that as the share of ST population exceeds certain threshold(here 20%), a negative correlation between share of ST population in the villages and proportion of households having electricity in these villages exist.

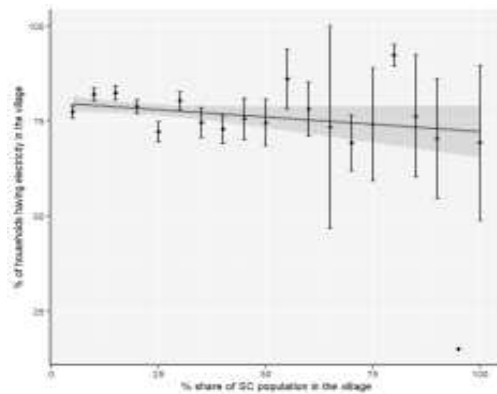
From the above figures, we have seen that when the villages start becoming substantially dominated by SC/ST communities, proportion of households having electricity reduces considerably².

Figure 3 : Locally weighted smooth curve of the proportion of population having access to electricity in the village against the share of ST population in the village, along with means and deviations around mean at different intervals.



Estimating a simple linear relation between share of SC/ST population in village and proportion of households having electricity

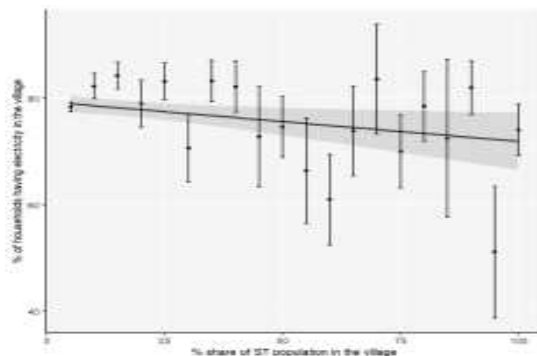
Figure 4 : Linear regression line which shows correlation between share of SC population in village and proportion of households having access to electricity, along with mean and deviations around mean



From Figure 4, it is clear that a linear estimation of proportion of households having electricity against share of SC population in the village gives a downward sloping line. This indeed means that there exists a negative relation between SC dominance in a village and household's access to electricity.

Similarly, Figure 5 also represents a negative relation existing between share of ST population in villages and proportion of households having electricity in these villages, concluded using linear estimation.

Figure 5 : Linear regression line which shows correlation between share of ST population in village and proportion of households having access to electricity, along with mean and deviations around mean



Something notable is that the slope of the line is more steeper in the case of ST dominance. This implies when share of SC/ST population in a village increases, proportion of households having electricity in the village decreases and magnitude of this correlation is higher among ST dominated villages on an average.

Probability that a village has access to electricity

Here, probabilities were calculated after grouping the data of share of SC and ST population in villages into different class intervals of equal width. Then a locally weighted smooth curve was estimated using the estimated probabilities. Out of 1366 villages, 18 villages have no access to electricity at all.³

In Figure 6, initially there is an increase in probability which soon becomes almost equal to 1 like a flat curve. But when the share of SC population increases beyond about 50%, the probabilities start decreasing. Therefore, we reach to a conclusion similar to cases mentioned above, where the probability of having access to electricity decreases vaguely as share of SC population increases if the dominance is substantially higher. The curve also depicts a small increase in probability when share of SC population is about 90-100%.

Figure 6 : Locally weighted smooth curve of probability of a village having access to electricity plotted against share of SC population in the village

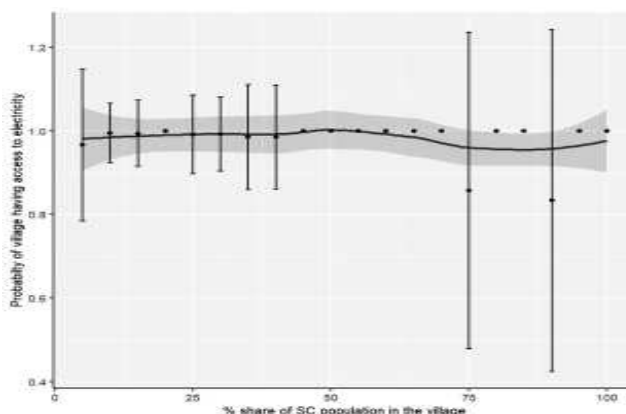
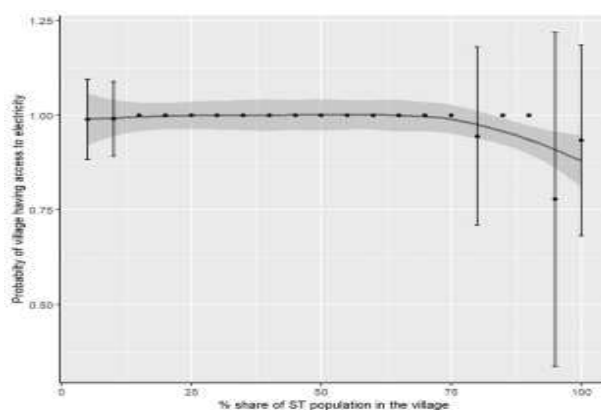


Figure 7 : Locally weighted smooth curve of probability of a village having access to electricity plotted against share of ST population in the village



Similar but more clear results can be observed in the case of ST population. Here the curve almost remains flat at probability equal to 1 until the share of ST population is around 70%. After that, the curve shows a sharp downward trend pointing towards a substantial decrease in probability. Here, we can more clearly conclude that probability of having electricity access in a village decreases sharply when the dominance of ST population becomes considerably high in that village.

Thus, we have seen that in both cases probability of access to electricity in a village shows a downward trend when the dominance of SC/ST community is substantially higher. And the decline can be sharply observed in the case of ST dominance.

Regression Analysis

All the above analysis was done without controlling for other factors that can affect access to electricity. Thus the results derived could be due to the effect of some other factors other than caste dominance. To incorporate this, we can use regression technique to control other independent variables affecting access to electricity.

Here, the following model is considered

$$Y_i = \hat{a}_0 + \hat{a}_1 SCD_i + \hat{a}_2 STD_i + X'_i \hat{a} + \hat{a}_i \quad (1)$$

where i represents a village, Y_i is proportion of households having access to electricity in a village, SCD_i and STD_i are dummy variables which shows whether the village is SC/ST dominant, X includes all other control variables which can have an effect on access to electricity in a village. Regression results are presented in Table 3.

It can be seen from Table 3 (given below) that accessibility to electricity is significantly low in ST dominated villages than Non SC ST dominated villages. Proportion of households having access to electricity is 7.7% lower in ST dominated villages compared to Non SC ST dominated villages. After adding both state and district fixed effects, still its 7.57% lower in ST dominated villages. Even after changing one of the explanatory variables (Distance from a pucca road to Distance from the nearest town), we get similar results where the proportion is lower in ST dominated villages by 6.6%. But the same effect doesn't hold significant for SC dominated villages. We can see that the coefficients are negative as expected but proportion of households having access to electricity doesn't turn out to be significantly low from non SC ST dominated villages. In all specifications, number of hours a day the village have power is a significant factor with positive coefficients. Thus, an increase in availability of power in a village will increase proportion of household having access to electricity in the village.

Table 3 : Regression Results

	Dependent variable:					
	Proportion of households having access to electricity in a village					
	(1)	(2)	(3)	(4)	(5)	(6)
SC Dominated Village	-3.431 (2.898)	0.548 (2.388)	-0.433 (2.304)	-1.273 (2.396)	-0.458 (2.391)	-3.753 (2.938)
ST Dominated Village	-5.474* (2.860)	-7.703*** (2.459)	-7.570*** (2.445)	-6.617*** (2.397)	-6.484*** (2.411)	-4.518 (2.803)
Distance from a pucca road	0.644** (0.296)	-0.050 (0.249)	-0.064 (0.244)			
Market Price of Kerosene (Rs/litre)	-0.253*** (0.075)	-0.138** (0.062)	-0.115* (0.061)	-0.101 (0.062)	-0.124** (0.062)	-0.226*** (0.075)
Market price of LPG(Rs/cylinder)	-0.023* (0.013)	-0.012 (0.011)	-0.009 (0.012)	-0.006 (0.011)	-0.008 (0.011)	-0.013 (0.013)
Availability of power(Hrs/day)	1.596*** (0.111)	0.865*** (0.139)	0.866*** (0.139)	0.849*** (0.138)	0.849*** (0.138)	1.573*** (0.111)
Distance to nearest town				-1.259** (0.544)	-1.628*** (0.541)	-0.681 (0.677)
Constant	76.300*** (6.385)	94.930*** (7.356)	86.167*** (12.287)	86.202*** (12.316)	95.448*** (7.323)	73.279*** (6.312)
District Fixed Effects	No	No	Yes	Yes	No	No
State Fixed Effects	No	Yes	Yes	Yes	Yes	No
Observations	1,112	1,112	1,112	1,133	1,133	1,133
R ²	0.163	0.520	0.572	0.571	0.521	0.155
Adjusted R ²	0.158	0.504	0.535	0.534	0.505	0.150
Residual Std. Error	24.868	19.100	18.488	18.582	19.152	25.100
F Statistic	35.868***	32.301***	15.355***	15.599***	33.127***	34.412***

*p<0.1; **p<0.05; ***p<0.01

Something interesting to note is that, in most of the specifications, an increase in market price of kerosene which is a substitute for electricity (in some cases) leads to a fall in proportion of households having access to electricity in a village. This is the exact opposite of what we would expect from a conventional notion. A reason for such an unusual behaviour could be that households who already don't have access to electricity

must be from a poor economic background (all other district specific and state specific factors are already controlled in regression).

For them, kerosene must be a main source of cooking fuel and when its price increases you can't decrease its consumption after a point since it's a necessary good. This constraints the budget set and households might decide not to spend on electricity. And thus the argument for a positive relationship completely breaks. Since the negative coefficient of the same is very small around 0.11%(0.13%), it doesn't make a significant change. A similar argument would apply for the non relationship between market price of LPG (a substitute for electricity in cooking). As we have seen, the SC and ST dominated villages where accessibility to electricity is poor, are not even in a position to think of electricity as a source of cooking fuel and proportion of households in even non SC ST village using electricity for cooking is very low, thus relationship doesn't hold here. The above analysis has also shown how much systematically different is access to electricity in ST dominated villages compared to Non SC ST dominated villages.

Conclusion

The objective of the study was to analyse whether there exists a systematic difference in electricity provision across villages on the basis of caste dominance. A vague comparison using maps plotted as per census data revealed that there is a possibility of negative correlation between share of SC/ST population in a district and proportion of households having access to electricity in these districts. It was also noted that some areas which are comparatively dominated by SC/ST population have seen no considerable improvement in access to electricity from 2001 to 2011.

Further qualitative analyses were done using IHDS 2011-12 survey data. We saw that as the share of SC/ST population in villages increases after a threshold, proportion of households having access to electricity start declining. A linear relationship estimated between share of SC/ST population the village and proportion of households having electricity in these villages also resulted in a downward sloping line, indicating a negative relationship. In both the above cases, results were more sharp and clear in the case of ST dominated villages.

An attempt was made to evaluate trend of probability of having electricity in a village with respect to share of SC/ST population. It was seen that probability starts decreasing when the villages start becoming substantially dominated by SC/ST community. Here also, the result is more evident in the case of ST dominated villages.

Empirical analyses using regression techniques also gave similar results. Results were significant for ST dominated villages and we saw that proportion of households having access to electricity in a village is about 7% lower in ST dominated villages compared to Non SC ST dominated villages. Even though the coefficients had a negative sign, results turned out to be insignificant for SC dominated villages.

From the analyses made above, we can conclude that there exists a negative correlation between accessibility to reasonable amount of electricity and dominance of SC/ST population in villages. Results are much more evident and significant in case of ST dominated villages. The findings further points to a serious impediment in the implementation of policies related to public good provision.

Notes

1. In the paper, for analysis purposes, villages are divided into 3 groups-SC Dominated, ST Dominated and Non SC ST Dominated. For example, a village is SC Dominated if percentage of SC population in the village is higher than both percentage of ST population and non SC ST population (Bailwal and Paul, 2022).
2. Its also visible that variation around mean is higher when SC population share is larger, this could be because of lack of data here since we have less number of villages which have large share of SC population. Its applicable in the case of ST also.

3. Because of this, in some class intervals there is no variation around mean since all villages belonging to that class have access to electricity.

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Dynamics of Labour Supply in Kerala's Agriculture Labour Market

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Shijo Philip &
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The agriculture labour market of Kerala passed through various stages of evolution viz agrestic slavery, attached labour system, casual labour system and multiple labour system. The expansion of non-agricultural activities in the state has induced the cultivators and agricultural labourers to move out of agriculture. Thus, the structure of rural labour market in Kerala is being shifted from agricultural activities to non-agricultural activities. The increase in wage seems to have failed to attract the unemployed labour force on account of their job preferences. The study mainly analyses the changes in labour supply to agriculture from the traditional labour households on account of their upward economic mobility and availability of non-agricultural employment.

Keywords : Agricultural labour market; Labour supply; Labour shortage; Labour market paradox; Rural unemployment, Labour households.

Introduction

Casual labourers in Kerala have a relative preference for non-agricultural works and therefore they have a tendency to shift from agriculture to non-agricultural works. This labour market change has a direct bearing on agricultural performance and practices. Kerala economy has been witnessing a trend of rapid 'tertiarisation' since the 1970s. In the light of these developments, rapid changes have been taking place in paddy-cultivating areas of Kerala, especially in Kuttanad. Opening up of wide avenues of non-agricultural employment and the upward economic mobility of traditional labour households has resulted in a steep reduction in the supply of labour to the agriculture sector.

Objective of the Study

The objective of the study is to analyze the changes in the supply of labour to agriculture and identify the major factors influencing the supply of labour to agriculture based on an empirical sample survey of labour households.

Methodology of the Study

The study has employed both primary and secondary data. The researcher selected a sample of 200 households of labourers from the four selected panchayaths. In the selection of households, equal weightage was accorded to four panchayaths. A simple random method was followed for selecting the sample of labour households and a well-structured schedule was used for collecting information. The household was taken as the basic unit of analysis because it constituted not only a composite unit of consumption but a composite unit of employment and income as well. 'Activity criterion' was employed for identifying households of labourers. Accordingly, the criterion the researcher used was whether the head of the household or at least 50% of earners of households reported agricultural labour as their main occupation.

The important factors determining labour supply to agriculture were the size of family, availability of alternative jobs, job preference of young generation and implementation of self-employment programmes by the government. The supply of labour days to agriculture and non-agriculture was estimated on the basis

of a survey of labour households. The annual income of labour households was estimated in order to analyse the relationship between the income of the labour family and the supply of labour to agriculture. The monthly expenditure of the labour households on durable and non-durable goods was estimated to understand the standard of living and consumption level of households.

For dissecting the relationship between income of households and labour supply, the labour households were classified into two categories. *Income criterion* was used for classifying labour households into Predominantly Agricultural Labour Households (PALH group) and Predominantly Non-agricultural Labour Households (PNALH group). Thus the labour households were divided into two categories - PALH group and PNALH. The households deriving a major part of their total annual income (50% and more) from agricultural wage employment were designated as PALH group and the households deriving a major part of their total annual income (50% and more) from non-agriculture were designated as PNALH group. This was done to find out the main source of supply of labour to agriculture.

Results and Discussion

Evolution of Agricultural Labour Market

Nineteenth-century Kerala agricultural labourers were *agrestic (rural) slaves*. They could be bought and sold (Franke, 1993: 152). Although slavery was abolished in Kerala in 1855, agricultural labourers effectively remained as slaves up to the 20th century. In the short run, agrestic slavery changed into an *attached labour system*. The attached labour system continued in several parts of Kerala up to the middle of the 20th century. This was the labour arrangement of the caste-based 'janmi' system. Agricultural labourers were made to work for a greater part of the day for a pittance (Thomas and Thomas, 1999: 214). The slavery and attached labour system ensured an adequate supply of labour to take care of their seasonal requirements. There were devices to prevent the upward mobility of agricultural labourers. The attached labour system gave way to the *casual labour system*, which was the product of institutional reforms. Trade union movements and security of tenure and title to hutment dwellings made them free to sell their labour-power. With the passage of time, the casual labour system underwent changes and the casual labour status gave way to *multiple labour status*. Various factors were responsible for this transformation - right to hutment dwellings, the emergence of a new class of peasantry with substantial improvement in their social and labour status, improvement in the educational level of population, growth of the non-agricultural sector and the resultant shift of labourers towards non-farm activities, increase in non-farm employment etc. With this, full-time labourers in agriculture have substantially declined and which have affected the availability of labour especially during peak seasons in agriculture.

Pattern of Rural Employment in Kerala

The share of primary sector in Gross Value added and employment of Kerala was very low compared to other states or national average. Employment in the primary sector of Kerala has been continuously declining. The share of employment in the primary sector of Kerala was around 44.2 per cent in 1987-88 and it became a mere 10.11 per cent by 2020-21. On the other hand, Kerala witnessed a steady increase in the share of tertiary sector with respect to output and employment. The share of tertiary sector employment in Kerala reached the level of 47.29 per cent by 2020-21.

Table -1: Percentage share of different sectors in Gross State Value Added (GSVA) and Employment

Sector	Gross State Value Added (GSVA)		Employment	
	2019-20	2020-21	2019-20	2020-21
Primary	8.97	10.11	22.15	22.88
Secondary	26.82	29.43	30.56	24.18
Tertiary	64.21	60.46	47.29	47.29

Source: Kerala Economic Review, various years

Table-2 shows the distribution of usually employed persons by the status of employment in Kerala. In Kerala, most of the casual labourers are finding jobs in rural non-agricultural activities rather than in agricultural activities. Self-employment and regular wage/salary became the major categories of employment in Kerala and which resulted in the influx of labourers into the State from other distant states in India.

Table -2: Percentage distribution of workers in usual status (ps+ss) by broad status in employment

NSSO Rounds	Self employed		regular wage/salary		Casual labour	
	Rural	Urban	Rural	Urban	Rural	Urban
2019-20	40.9	35.5	26.3	38.6	32.9	25.9
2020-21	40.2	34.3	24.8	39.0	35.0	26.7
2021-22	38.9	37.6	27.0	35.3	34.1	27.1

Source: Annual Reports – Periodic Labour Force Survey (PLFS)

According to census reports, the percentage of cultivators in Kerala declined from 13.07% in 1981 to 5.84% in 2011. Similarly, the percentage of agricultural labourers in Kerala declined from 28.23% in 1981 to 9.85% in 2011. At the same time, the percentage of non-agricultural workers in Kerala remarkably increased after 1981. It is shown in Table -3. The expansion of trade, transport, banking and a host of other non-agricultural activities in the formal and informal sectors in the state enabled the cultivators and agricultural labourers to move out of agriculture.

Table-3: Percentage distribution of main workers in Kerala

Items	1981	1991	2001	2011
Cultivators	13.07	12.24	7.20	5.84
Agricultural labourers	28.23	25.55	16.07	9.85
Household industry workers	3.69	2.58	3.54	2.13
Other workers	55.01	59.63	73.19	82.18

Source: Various census data (Cultivators, Agricultural labourers, Household industry workers, other workers as percentage of main workers)

In Kerala, it is seen that the average number of days of employment has drastically declined in agriculture. Within the agricultural sector, there is a sizeable reduction in employment in crop production as it appears more like a subsidiary activity for males. On the other hand, there has been a sharp growth in rural non-agricultural employment in Kerala since 1981, making a change in the industrial distribution of the workforce. Because of these changes, the structure of rural employment in Kerala has shifted from agricultural activities to non-agricultural activities. The unsustainability of agricultural employment also induces shifting to non-agriculture. The overwhelming growth is in the construction and the service sector.

Wage Rate

Kerala stands first with respect to male and female wage rates in India. Money wage and the real wage have been steadily increasing in Kerala. The rate of growth in product wages was higher than the rate of growth in labour productivity since the mid-70s in agriculture in the state (Kannan and Pushpangadan, 1990). Labour cost (wage cost) constitutes about 60 per cent of the total cost of paddy cultivation (Kannan, 1998: 63). “Costs on material inputs and human labour account for more than 80 per cent of the total paid-out costs involved in the cultivation of all major crops in the state” (Thomas, 2004: 156). Table-4 clearly shows that substantial difference in agricultural wage rate in India and Kerala.

Table-4 Average daily wage rates in rural India and Kerala (Men – Agricultural Labourers)

Year	Kerala	India
2018-19	682.4	277.4
2019-20	700.9	287.1
2020-21	706.5	309.9
2021-22	726.8	323.2

Source: Kerala Economic Review, various years

The degree of unionization has been cited by many studies as one of the important reasons for the unreasonable hike in rural wages. The Kerala phenomenon is also explained in terms of the inter-related labour market and wage relativities or spread effect (Krishnan, 1991: A-89). and (Sasikumar and Raju, 2000: 40-42). Accordingly, a rise in the wage rate of any category of labour within a structure of inter-related labour markets is transmitted to other labour markets to establish wage parities.

Unemployment

The incidence of the unemployment rate is also very high in Kerala. There has been a gradual increase in the percentage of educated unemployed in Kerala. Despite mounting unemployment, educated work-seekers indefinitely wait for white-collar jobs and on the other hand, in spite of the potential higher earnings, work-seekers avoid manual work and blue-collar jobs.

Table 5: Rural unemployment Rate in per cent: Usual Status (ps + ss) (Per 1000)

Year	Kerala			India		
	Male	Female	Person	Male	Female	Person
2018-19	4.7	15.6	8.4	5.6	3.5	5.0
2019-20	7.3	13.8	9.7	4.5	2.6	4.0
2020-21	6.4	13.4	8.9	3.9	2.1	3.3
2021-22	6.9	12.4	9.0	3.8	2.1	3.3

Source: Annual Reports - Periodic Labour Force Survey (PLFS),

Demographic, social and economic factors, availability of alternative employment opportunities etc have contributed to a reduction in the supply of labour to agriculture. Younger members of agricultural labour households have also got facilities to do higher education and technical education. Consequently, they prefer to work in non-agricultural areas and wait until they secure such employment. The relative preference for stable employment discourages them to take up seasonal agricultural works despite the high wage rates.

Widespread implementation of various poverty alleviation programmes rendering substantial employment opportunities to the rural poor outside the farm sector, sprouting of many small-scale and auxiliary industrial units in rural areas of the state, hectic construction work going on in and around rural areas, the fast growth of the tertiary sector, the large scale migration of rural youth to foreign countries and to other states have reduced the availability of labour for agricultural operations.

Analysis of Primary Survey

For analysing the change in the supply of labour to agriculture a primary survey was conducted on 200 households of labourers in four panchayaths belonging to four segments of Kuttanad in 2022. They were Edathua (Upper Kuttanad), Champakkulam (Lower Kuttanad), Kainakary (Kayal lands) and Thakazhy (Kari lands). The selected panchayaths were the most important paddy growing areas in Kuttanad. Besides, the urbanization process was taking place in these regions especially after they had been linked to nearby urban centres like Alappuzha, Changanassery and Thiruvalla by means of roads.

Age-structure

Around 90% of labour households had a family size of five or less than five. The small size of labour households had a direct bearing on the labour supply to agriculture. Age structure of members of 200 labour households is given in table -6

Table-6: Age structure

Item	0-20	20-30	30—40	40-50	50-60	60-70	70-80	80 and above	Total
Number of persons	132	133	57	85	175	131	31	38	782
%	16.9	17.0	7.3	10.9	22.4	16.8	3.9	4.9	100

Source: Sample survey, 2022

The size of the labour force depends on the size of 'age-eligible population and the aggregate labour force participation rate i.e., the percentage of the age-eligible population that chooses to be in the labour force. The children and students ranging 0-20 years were 16.9% of the total population. On the other extreme side, the aged having 60 years and above was 25.6% of the total population. The people in the age group 20-60 (57.5%) included students of another age group, casual labourers, unemployed, self-employed, regular wage/salaried employees etc. 79% of casual labourers in the sample area were belonging to the age group of 50-70 years. It showed the reluctance of the young generation of labour households to take up agriculture works as their livelihood. At the same time, it is found that 78.41% of the total unemployed persons belonged to the age group of 20-40 years. Thus, the incidence of unemployment in the region was high among the young and the educated. The younger age persons in the labour households had a preference for self-employment, regular wage and salaried jobs or to remain unemployed rather than working as agriculture labour.

Occupational Distribution in Labour Households

It was found that 46% of households had only one casual labour; 44.50% of households had two casual labourers. Only 9.5% of households had more than two casual labourers. 48% of households had regular wage/salaried persons ranging from one to two; 19.5% of households had self-employed persons; 38% households had unemployed persons; 56.5% households had students and 25.5% of households had others including aged, disabled etc.

The occupational distribution of labour households includes casual labourers; regular wage/salaried persons in government, private and informal sectors; self-employed; unemployed; and others. Occupational distribution in labour households is shown in table -7.

Table-7: Occupational Distribution in Labour Households

Sl.No.	Items	Number of persons	Percentage
1	Casual labour	329	42.07
2	Regular wage/salaried	101	12.92
3	Self- employed	51	6.52
4	Unemployed	88	11.25
5	Others	213	27.24
	Total	782	100

Source: Sample survey, 2022

The percentage of casual labourers was the highest which was 42.07%. The share of regular wage/salaried persons was 12.92%, the share of self-employed was 6.52%, the share of unemployed was 11.25% and others 27.24%. Others include students and the aged people. Members of labour households were largely engaged in manufacturing, construction, transport, hotel and restaurant and other services. There was an occupational diversification in the employment patterns of local labour.

Distribution of Casual Labourers

Supply of casual labour means the amount of labour willing to work at a particular real wage rate. Casual labourers were categorized into three: casual labourers working in agriculture only, casual labourers working in non-agriculture only and casual labourers working in both agriculture and non-agriculture. The distribution of casual workers is shown in table-8.

Table-8: Distribution of Casual Labourers

Casual labourers	Male		Female		Total	
	Number	%	Number	%	Number	%
Agriculture only	21	6.38	94	28.57	115	34.95
Non-agriculture only	108	32.83	24	7.29	132	40.12
Both agriculture and non-agriculture	52	15.8	30	9.12	82	24.92
Total	181	55.01	148	44.98	329	100.00

Source: Sample survey, 2022

The majority of casual labourers (40.12%) were casual labourers who work in non-agriculture only. While full-time casual labourers in agriculture were 34.95% of total casual labourers, casual labourers working in both agriculture and non-agriculture were 24.92%. So far as the labourers working in both agriculture and non-agriculture were concerned, their supply of labour to agriculture was intermittent and unguaranteed. It was found that employment diversification was remarkably higher for male labourers.

Supply of Labour Days

Crop production became a subsidiary activity for casual labourers in Kuttanad and the structure of rural employment in the area shifted from agricultural activities to non-agricultural activities.

The structure of total yearly employment and earnings of the rural labour households underwent sizeable changes owing to their connection with the urban centres. The strong rural-urban linkage was increasingly facilitated by a growing network of village link roads and with them changed the employment pattern and the corresponding levels of income and consumption of the rural population. Some new activities emerged and expanded fast as important sources of employment and earnings for the rural labour households. The prime-mover for the shifting of labour was the sheer availability of highly lucrative non-farm employment. In modern society, entry into any occupation is free subject to the requirement that he has undergone the necessary training. In this context, agricultural labourers moved out of agriculture to non-agriculture employment like construction, trade transport and other services. The supply of labour days by casual labourers in the sample labour households is shown in table-9.

Table-9: Income and Annual Supply of Labour Days of households

Income category in RS	Mean annual supply of labour days to agriculture	Mean annual supply of labour days to non-agriculture
Below 20,000	113.40	60.00
20,000-40,000	120.98	51.52
40,000-60,000	92.13	112.58
60,000-80,000	89.42	179.25
80,000 and above	74.80	191.35
Total	98.15	118.94

Source: Sample survey, 2022, estimated values.

The relationship between the supply of labour days and the annual income of labour households could be understood from the table. About 75% of labour households had annual income above Rs. 40,000. The average supply of labour days to agriculture was high for low-income families and it was very low for high-income households. For instance, the average supply of labour per household to agriculture was 113.40 and 120.98 for families having annual income below Rs. 20,000 and Rs. 20,000 - 40,000. For households having annual income above Rs. 40,000, the average annual supply of labour days to agriculture was about 85 days.

The income of labour households and the supply of labour days to non-agriculture were found to be directly related. For instance, the average supply of labour days per household to non-agriculture by the high-income category (Rs. 80,000 and above) was the highest (191 days). It was 179.25 for the income category Rs. 60,000 - 80,000 and 112.58 for the category Rs. 40,000 - 60,000 and it ranged between 50 and 60 only for low-income categories. Thus, level of income and supply of labour to agriculture were inversely related and they were directly related in the case of non-agriculture.

Supply of Labour by PALH and PNALH Groups

For dissecting the relationship between income of households and labour supply, the labour households were classified into two categories on the basis of income criterion-Predominantly Agriculture Labour Households (PALH) and Predominantly Non-Agriculture Labour Households (PNALH). According to the income criterion, the households deriving a major part of their total annual income (greater than 50%) from agriculture wage employment were designated as PALH and others as PNALH group.

Table - 10 : Annual average supply of labour days and category of households

Supply of labour days	PALH	PNALH	Total
Agriculture	123.29	73.00	98.15
Non-agriculture	58.18	179.19	118.68
Total	90.74	126.10	108.42

Source: Sample survey, 2022, estimated values

The supply of labour days to agriculture was higher for the PALH group (low-income group) and the supply of labour days to non-agriculture was substantially higher for the PNALH group (high-income group). The average supplies of labour days by PALH and PNALH to agriculture were 123.29 and 73.00 respectively. The remarkable difference between PALH and PNALH with respect to the average supply of labour days to non-agriculture was evident. It was only 58.18 for PALH and 179.19 for PNALH.

Non-agriculture Activities of Casual Labourers

The magnitude of opportunities for employment outside agriculture alters the overall position of the supply curve of agricultural wage labour. Non-agricultural employment increases at a faster rate than agricultural employment leading to a rise in the proportion of rural non-agricultural workers. Much of the growth has occurred in sectors like construction, trade, transport, and other services.

Both distress and development factors seem to have played a role in the type of occupational diversification that has taken place in the area. Diversification of the workforce into the non-farm sector is the major factor behind poverty reduction and real wage increase in rural areas. The real wages of agricultural labourers have begun a systematic upward climb because of workforce diversification rather than growing labour productivity. Construction, painting, polishing, plumbing and electrical works, carpentry, woodworks, fish sales, hotel, restaurant and domestic services and other activities were the major non-agriculture activities in the sample area. About 71% of households informed that casual labourers of the households frequently went for non-agricultural jobs outside the locality.

Regarding shifting of labourers from agriculture to non-agriculture, 25.5% of households responded that advantages and prospects of non-agriculture jobs were the responsible factors. For 22.5% of households, the unsustainability of the agriculture sector was the responsible factor; and for the remaining 52% of households, both advantages of non-agriculture jobs and disadvantages of agricultural jobs were the responsible factors. Thus, both pull factors and push factors operated behind the shifting of labourers from agriculture to non-agriculture. It is seen that 49% of labour households had self-employment and supplementary employment activities. The major self-employment activities of labour households were auto-rickshaw driving, and petty shops. The major supplementary sources of income were cattle rearing, vegetable cultivation, tuition, tailoring and chips production. The option for non-wage income resulted in a decrease in the labour supply to agriculture. Non-wage income of labour households increased faster than wage income and the agricultural work became a subsidiary occupation for the labour households.

Education-Employment Status

It is found that 66% of casual labourers had only mean education ie, up to primary level. Since they were not skilled and educated, most of them were confined to agricultural works. The remaining 34% of casual labourers had education up to secondary and above. This group of casual labourers, because of their higher education, found employment in the non-agriculture sector. No casual labour had education above the higher secondary level in the sample. In the case of self-employed, regular wage/salaried persons, education level was found to be very high. Unemployed persons were also having a fair level of education. For instance, 29.55% of unemployed persons had secondary level of education, 19.32% had higher secondary education, 26.14% had degree education, 10.23% had post-graduate education and 7.95% had technical and vocational education. Younger members of agricultural labour households got facilities to do higher education and technical education. Consequently, they preferred to work in non-agricultural employment or wait until they secured such employment. Thus, a person was unemployed, but he was not available for manual work. Younger women having average school education preferred to work as shop assistants or caretakers. The relative preference for stable employment discouraged them to take up seasonal agricultural works despite the high wage rates. With respect to conditions of work, continuity of employment, job status, job security, and job prospects, non-agriculture was the preferred sector of the majority of labour households. Members of labour households were shifting to the non-agriculture sector not merely being attracted by the wage rate there, but by some other factors like status, security, conditions of work etc.

Income and Expenditure of Labour Households

Labour households in Kuttanad had varied sources of income. The sources of the annual income of labour households (PALH group and PNALH group) are shown in table-11.

Table-11: Average annual income of a PALH and a PNALH family (% in bracket)

Category of Households	Wage income			Non-wage income	Total
	Agriculture	Non-agriculture	Total		
PALH	22989.08 (61.49)	4907.69 (13.13)	27896.76 (74.62)	9486.16 (25.38)	37382.92 (100)
PNALH	5563.93 (9.29)	31773.56 (53.03)	37337.49 (62.32)	22577.73 (37.68)	59915.22 (100)
Average	28553.01 (29.34)	36681.25 (37.70)	65234.25 (67.04)	32063.89 (32.95)	97298.14 (100)

Source: Sample survey, 2022

Labour households have mainly two sources of income, wage income and non-wage income. Wage income is divided into wage income from agriculture and wage income from non-agriculture. Non-wage income includes income from salary income, cultivation, self-employment, remittances, livestock, poultry, pension, subsidy etc. For the PALH group, the main source of income was wage income from agriculture. Their 61% of annual income came from wage income from agriculture, 13% of income from the non-agriculture sector and 25% from non-wage income. For the PNALH group, the main source of income was wage income from the non-agriculture sector. Their 9% of annual income came from wage income from agriculture. 53% of income from wage income from non-agriculture, and 37% income from non-wage income.

The combined figures of income of PALH and PNALH groups are also given in the table. For labour households as a whole wage income from agriculture was only 29% of total annual income. Nearly, 37% of their income was coming from wage income from the non-agriculture sector; 33% of income from non-wage income. Thus, non-agriculture sector was the main source of wage income and total income. The monthly expenses of labour households are shown in table-12.

Table-12: Average Monthly Expenditure of a PAL and a PNAL household in Rupees

Category of household	Consumption expenditure - food toilitary and sundry	Education	Health	Consumer durables	Travel enter-tainment	Clothing and others	Total
PALH	1799.15	242.15	184.85	82.69	119.38	234.54	2662.76
PNALH	2727.74	261.44	198.04	97.96	203.96	288.63	3777.77
Average	2263.44	251.80	191.44	90.32	161.67	261.58	3220.26

Source: Sample survey, 2022

The average monthly expenditure of labour households was Rs. 3220. Consumption expenditure on food, toiletry and sundry was the single largest expenditure item. Average monthly expenditure of households on education, health, consumer durables, travel and entertainment, clothing and others are also given. The average monthly expenditure of the PNALH group on consumption items was much higher. Withdrawal from the agriculture labour market was higher for the PNALH group.

Conclusion

The structural transformation taking place in Kerala has resulted in the shifting of labourers and youngsters in labour households from agriculture to non-agriculture. This created a situation of labour market tightening in the agriculture sector of regions like Kuttanad. Tertiary sector activities were the major employment activities of non-casual labourers in labour households. Construction activities were the major non-agriculture activities of casual labourers here. The supply of labour to agriculture was higher for low-income category households (PALH) and the supply of labour to non-agriculture was higher for high-income category households (PNALH). The educated unemployed persons had a preference for white-collar jobs. Non-agriculture was the preferred sector of the majority of labour households with respect to conditions of work, job status, job prospects etc. Most of the labour households have non-wage and supplementary income and it created a negative impact on labour supply to agriculture. The primary survey results revealed that micro-level factors operating at the household level and macro-level factors operating at the society level were responsible for the reduction in the supply of labour to agriculture. The shortage of labour created a negative impact on paddy cultivation and a threat to the food security of Kerala. Harmonization in the use of machines and labour would increase the intensity of cultivation and sustainability of agriculture as a dependable source of employment and income for households. This change can attract the new generation to agriculture and it would be a solution to the food insecurity of Kerala.

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Electoral Bonds : A View Point

Mary George

The Supreme Court used its power as the last weapon to pause the electoral bond scheme. According to section 7(4) of The Electoral Bond Scheme, 2018, the information furnished by the buyer “shall be treated confidential by the authorized bank and shall not be disclosed to any authority for any purposes, except when demanded by a competent court or upon registration of criminal case by any law enforcement agency.” There are obvious questions about the legitimacy of the sources of the funds being used for the purchase. It cannot be said with certainty that funds that reached the designated account of the political parties were of the same ‘colour’. There were no safeguards to protect the so called clean channel from being contaminated. Power and influence do attract political funding, but misusing them either by muscular demonstration or the promise of reward will ultimately ruin democracy.

Keywords : Electoral Bond, Money Bill, PMLA, KYC, Association for Democratic Reform.

Introduction

After independence, the country could not evolve a transparent method of funding political parties which is vital to the system of free and fair elections. An attempt was made in the past by amending the provisions of the Representation of Peoples Act, the Company’s Act, and the Income Tax Act, to incentivise donations by individuals, partnership firms, HUFs (Hindu Undivided Families) and Companies to political parties. It failed to achieve the designed result. Another effort was required to cleanse the system of political funding in India. The donor funded election was former Indian Finance Minister Arun Jaitley’s choice.

The Indrajit Gupta Committee Report 1998 and the Law Commission Report 1999 dealt with this issue. These reports advocated state funding of elections. This type of government funding was highly inadequate and disputable. At this juncture, The Election Commission of India in 2016 submitted ‘a proposal on Electoral Reforms’. This includes proposals like (a) Government advertisement should be banned six months prior to any general election, (b) the law should be amended to state that a party’s ‘financial assistance’ to its candidate should also be within the limits of election expenditure prescribed for a candidate, (c) there should be a ceiling limit provided for a candidate multiplied by the number of candidates of the party contesting election and (d) additional judges can be appointed in High Courts for speedy disposal of election related cases that would act as a deterrent against violation of norms. However, the former Finance Minister Arun Jaitley wanted to introduce an electoral funding system of his government’s choice.

From 2004 Lok Sabha election onwards, Rangarajan former Governor of Reserve Bank of India points out that the Bharatiya Janatha Party led government put out advertisements with the tagline ‘India Shining’. The campaign led to a controversy over the use of public money. Reports state that an estimated Rs. 150 crore was spent for this campaign. Such huge funded election campaign was seen for the first time in India. It went on increasing in subsequent polls during 2019 and 2024. It was in this context that Arun Jaitley introduced the Electoral Bond in the 2017-18 budget.

The problem however is that the donor and the recipient party would keep the source and size of donations away from the public. Prior to 2017, political parties in India had to disclose the identity of any donor who donated more than Rs. 20,000. But, from the time of electoral bonds, unlimited donations with anonymity became possible. According to the Association for Democratic Rights, the BJP received 95% of

all electoral bonds purchased in the financial year 2017-18. Political funding is a vexed issue in democracies across the world. But electoral bonds made it more vexed by becoming a legal instrument legitimizing opacity in the name of transparency.

The controversial Electoral Bond Bill was introduced as a 'Money Bill' during the first term of the Modi Government. Electoral Bill became highly controversial when it was introduced in the Lok Sabha instead of in Rajya Sabha as a Finance Bill.

Electoral Bonds notified by Government on January second, 2018, was introduced as an alternative to cash donations made to political parties.

Features

The aim was to bring in transparency in political funding. Any citizen of India and an entity or corporation established in India can purchase Electoral Bonds from authorized State Bank of India branches. It can be purchased individually or jointly with other individuals. However, purchases can be made through only KYC-Compliant accounts to make donations to a political party. In brief, the following can make donations through purchase of electoral bonds.

- A Hindu Undivided Family (HUF)
- A Company
- A Firm
- An Association of Persons (AOP) or a body of individuals (BOI) whether Corporate or not.
- Every other artificial juridical person
- Any Office, agency or branch owned or controlled by an artificial juridical person.

Validity of Electoral Bonds

15 days from the date of their issuance

Documents Required

- Application form and pay-in-slip
- Copy of Citizenship and
- KYC documents.

Privileges Associated with Electoral Bonds

Electoral bond donations made by individuals or entities are tax exempted under section 80 GG, and section 80 GGB under the Income Tax Act, 1961. Political Parties can receive donations as per the provisions of section 13A of the Income Tax Act. These bonds are similar to bearer bonds or promissory notes, where the issuer (bank) is the custodian and pays the bond holder (political party). Since electoral bonds are bearer instruments, no ownership information is recorded, and the holder of the document is assumed to be its owner. The name and other details or information of the donor are not entered on the instrument and thus electoral bonds are anonymous. Life of an Electoral Bond is fifteen days during which it can be used to make donations to political parties. The electoral bonds handed over to political parties can be encashed only through the designated bank accounts. The political parties should approach the Election Commission and file returns on the total electoral bonds that they have received. The electoral bonds are issued or can be purchased for any value in the multiples of Rs.1000, Rs.10,000, Rs.100,000, Rs.10,00,000 or Rs.1,00,00,000. Each bond has a unique identifier which only the bank, the donor and the party encashed the bond would know.

Impact of Electoral Bonds on Indian Democracy

Though electoral bond was introduced as an instrument to clean up political funding, it represented a sea change in the principles of public accountability. Financial Times reported ahead of 2024 General Election that in order to safeguard public interest, political finance should be transparent and added that India's 2019 General Election was more expensive than U.S Presidential Election 2016.

Further, electoral bond scheme has raised several concerns like

(a) the RBI, during consultations before the scheme was announced with legal validity, warned that electoral bonds could be used for money laundering. The bonds bearer nature and anonymity raised concerns about quid proquo. This anonymity can facilitate money laundering, as it allows for large amounts of anonymous funds to be moved conveniently during the bond's 15 day life cycle.

(b) Promote shady transactions without leaving a money trail.

(c) Money routed through shell companies could find its way to political parties, creating a secondary market for electoral bonds.

With a view of mitigating these risks, the scheme added clause 11, stipulating that the donors must use banking channels (such as cheques or electronic transfers) to preserve audibility and to leave a trace. Yet shell companies flourish unnoticed.

(d) Though, trading of electoral bond was expressly forbidden, there were no safeguards against it. Any one with funds in the bank could buy these bonds, leading to potential money laundering and

(e) Electoral bond financing is opaque. The scheme incentivizes anonymous corporate donations and contributions through shell companies, which can further obscure the source of funds.

Bribes Made Legal Via Poll Bonds

The Hindu Editorial (22.03.2024) highlights that there seems to be a clear correlation between large donations being made to certain political parties, and bond purchasers receiving high-value infrastructure contracts. In some cases, there is strong correlation between entities being subject to actions or facing probes by the Enforcement Directorate and the Income-Tax Department, and later these entities or their representatives purchasing bonds, and these bonds were later encashed by the ruling Bharatiya Janata Party (BJP). The following tables give a clear view of illegal poll bond transactions.

Table 1 : Donation amount higher than net profits, (2016-17 to 2022-23) (Rs. In crore)

Sl. No	Name of the Company	Total Electoral Bond donations	Share of EB to BJP (%)	Sum of Net Profits (2017-18 to 2023)	Sum of Direct taxes paid (2017 to 2023)
1	Quick supply chain Pvt. Ltd.	410 crore	91.5	144.1	62.45
2	Madanlal Ltd.	185.5	94.6	2.07	-3.11
3	Nexg Devices Pvt.Ltd.	35.0	100	28.85	14.99
4	ABNL Investment Ltd	10.0	100	8.97	4.69
5	Pragati Enterprises Ltd.	3.5	100	0.02	0
6	Shree Krishna Infrastructure Ltd.	2.0	100	0.16	0.04
	Total	646		93	-

Source : Data point, The Hindu, 04.04.2024

As per the above table, these six companies donated a sum of Rs. 646 crore, out of which Rs. 601 crore (93%) was encashed by the BJP. They had positive net profits, but the amount donated through Electoral Bonds exceeded their aggregate net profits. As the survey team observes, these companies might have acted as fronts for other companies or have misreported their profits and losses. Examine the case of the Pragati Enterprises Pvt. Ltd. It has not given any corporate tax. Company Law prohibits companies from donating more than 7.5% of their net profit to any source. It has not given any tax, which shows the evasion too.

Table 2 : Donation amount positive, but sum of direct taxes zero between 2016-17 to 2022-23 (Amount in crore)

Sl. No	Name of Firm	Total Amount Electoral Bond Purchased	Share of E.B Donated to BJP %	Sum of Net Profits (2017 to 2023)	Sum of Direct Taxes paid (2017 to 2023)
1	M K Enterprises Ltd.	192.4	14	60.33	-10.62
2	Patel Highway Mgmt. Pvt. Ltd	1	100	24.86	-1.53
3	ABC India Ltd.	0.4	100	11.85	-2.24
	Total	193.8	14.6	-	-

Source : Data point; The Hindu, 04.04.2024

When table 2 is reviewed it becomes clear that these three companies purchased electoral bonds worth Rs. 193.8 crore of which Rs. 28.3 crore or around 15% was encashed by the BJP. What is surprising is that these three companies had positive net profits but reported negative direct taxes. This means that the electoral bond system tempted them to evade direct taxes and invest either the whole or a part of it in electoral bonds as quid-pro quo.

Another group of companies categorized in Table - 3 also reveals similar but different stories. They contributed a total of Rs. 16.4 crore in EBs, out of which 30 percent was encashed by the BJP. Following table-3 gives a glimpse of it.

Table - 3 : Companies with Electoral bond donation positive but no data available. No Tax given

Sl.	Name of the Company	Total Amount of EB bought	Share of EB donate to BJP	Sum of net profits	Sum of Direct taxes paid
1	Bharati Infratel Services Ltd.	12	16.7	NA	NA
2	Kamal Trading Co.Ltd	3.5	57.1	NA	NA
3	Jai Suspension System Ltd.	0.9	100.0	NA	NA
	Total	16.4	29.9	-	-

Source : Data Point, The Hindu, 04.04.2024

The Hindu survey group found that these three companies had no reported data on net profits or direct taxes paid for the entire period of 2017 to 2023-24. It raises a serious question as to whether these companies were shell companies that were involved in money laundering.

On January 30, 2016, the Chief General Manager of the RBI wrote that even the intended purpose of transparency may not be achievable, as the original buyer need not be the actual contributor to a political party. The bonds are bearer bonds and are transferrable by delivery. Hence, who finally contributes the bond to the political party will not be known. While the person, entity buying the bearer bond will be as per (KYC) parameters the identities of the intervening persons, entities will not be known. Thus the spirit of the presentation of Money Laundering Act (PMLA) 2002 is affected. It was also alleged that 41 corporate

groups have faced a total of 56 raids by the Enforcement Directorate (ED), The Central Bureau of Investigation (CBI), or the Income Tax Department. These Corporate groups have given Rs. 2,592 crore to the BJP, of which Rs. 1,853 crore was given after the raids against them. Again 16 shell companies donated Rs. 419 crore to the BJP, out of the Rs. 543 crore donated by the Shell companies in total. They included companies on Finance Ministry high-risk watch list.

Some companies even received a combined total of 179 major government contracts and project approvals worth Rs. 3.8 lakh crore. In short, we can see four patterns of corruption. (1) Pay donation, get business, (2) bag contracts and pay bribes, (3) extortion and (4) money laundering through Shell companies.

The bonds were a device used to carry favour with the establishment. It is also pertinent that the Finance Ministry had allowed certain bonds to be encashed even after their expiry date (within 15 days of the purchase date). This showed that the scheme had also created undue advantage for the ruling party. At the same time other parties were also beneficiaries. Of the Rs. 6,060.5 crore encashed by the BJP through electoral bonds, Rs. 584 crore, or 9% of all donations came from Megha Engineering and Infrastructures Ltd. Qwick Supply Chain Private Ltd. came second with Rs. 375 crore, or 6% of all donations encashed by the BJP. Vedanta Ltd. (Rs. 229 crore) and Bharti Airtel (Rs. 197.4 crore) were the other big donors to the party. Second largest beneficiary is Trinamool who received Rs. 1,609.50 crore through EBs. Here Santiago Martin's Future Gaming and Hotel Services stands out first with donation to EBs worth Rs. 542 crore (33.7% of all its donations). Third top beneficiary of EBs is The Indian National Congress with Rs. 1,422 crore. Of that Vedanta Ltd. contributed Rs. 125 crore, while Western U.P. Power Transmission Company Ltd. a subsidiary of MEIL donated Rs.110 crore through EBs. Fourth largest beneficiary is BRS which encashed Rs. 1,214 crore. out of which Rs. 195 crore came from MEIL.

The Cleansing Process

Thus electoral bond scheme was conceived, given legal birth and promoted to heights by the ruling party at the centre. However, Advocate Prasant Bhushan, appearing for petitioner NGO Association for Democratic Reform (ADR), told a five Judge Constitution Bench headed by the Chief Justice of India D.Y.Chandrachud that "the electoral bond scheme defeats the citizen's right to be informed of political parties which is a fundamental right under Article 19(1)(a) of the Constitution. Electoral Bonds are "opaque" and "anonymous instruments".... that it disturbs and indeed destroys democracy in this country because it does not allow a level playing field between political parties which are in opposition or between political parties and independent candidates"

It also seen that all significant contributions were made to the ruling parties through electoral bonds either at centre or the states. No significant contribution is made to parties that are not in power.

Free and fair election is the basic structure of the constitution. The moment one allows the corporate sector donate a quid pro quo arises. It should be borne in mind that the Indian Constitution is citizen centric. The scheme goes against the concept of informed electorate under Article 19 (1) (a) react with Article 326 of the Constitution.

The Supreme Court Verdict

The Supreme Court Bench of Five members, headed by the Chief Justice of India D.Y. Chandrachud on 15.02.2024 struck down the Electoral Bond Scheme as unconstitutional. The Court observed that the influence of money over electoral politics in India is not limited to electoral out comes but spills over to government decisions as well. The Court further observed that "the legal regime in India does not distinguish between campaign funding and electoral funding. The money which is donated to political parties is not used by the political party only for the purposes of electoral campaigns. Party donations are also used for instance, to build party offices and pay party workers". Chief Justice further observed that "the window for financial contributions to political parties is not open for a limited period prior to the elections. Money can

be contributed to political parties throughout the year. The contributed money can be spent by the political party for reasons other than just election campaigning.

The Supreme Court said that the economic inequality between the rich political contributors, mostly corporations and companies and ordinary citizens lead to “differing levels of political engagement because of the deep association between money and politics. At a primary level, political contributions give a ‘seat at the table’ to the contributor. Justice Khanna, a member of the Five member Bench which struck down Electoral Bond observed that “election funding is a major issue. It is not something very simple but a highly complicated issue. Capital and influence go hand-in-hand and the electoral process must be such that it provides a level playing field to all participants.”

The Supreme Court used its power as the last weapon to pause the electoral bond scheme. According to section 7(4) of The Electoral Bond Scheme, 2018, the information furnished by the buyer “shall be treated confidential by the authorized bank and shall not be disclosed to any authority for any purposes, except when demanded by a competent court or upon registration of criminal case by any law enforcement agency.”

Conclusion

The information that the State Bank of India has disclosed so far shows that many purchasers bought bonds that seem to be disproportionate to their business income. There are obvious questions about the legitimacy of the sources of the funds being used for the purchase. It cannot be said with certainty that funds that reached the designated account of the political parties were of the same ‘colour’. There were no safeguards to protect the so called clean channel from being contaminated. Power and influence do attract political funding, but misusing them either by muscular demonstration or the promise of reward will ultimately ruin democracy. The Supreme Court order which struck down Electoral Bond scheme can be considered as a life saving Act of Indian democracy.

Poverty Alleviation in Zambia: Challenges and Prospects

Milimo Mwami &
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Zambia, abundant in minerals and agricultural potential, has experienced economic decline since the 1980s, leading to increased poverty rates. Despite efforts to alleviate poverty, challenges persist. Sen suggests poverty extends beyond financial scarcity to encompass deficiencies in basic skills. The government has initiated various programmes addressing wage employment, food security, self-employment, social security, and urban poverty alleviation. However, impediments hinder effective poverty reduction. This paper evaluates Zambia's strategies in combating poverty through government policies targeting marginalized communities, aiming to enhance their well-being. Through an examination of these efforts, it seeks to identify areas for improvement and inform future interventions to address poverty challenges in the nation.

Key words : Poverty line, head-count ratio, poverty gap, purchasing power, and subsistence level

I. Introduction

Rich in natural resources, particularly copper, the Republic of Zambia has enormous agricultural potential (De la Fuente, 2015). Zambia had the worst of the economic downturns in Sub-Saharan Africa since the mid-1980s. Over time, poverty rates have increased, which is one of the most obvious effects of this loss. Against the backdrop of the country's continued high poverty levels, various initiatives and projects have subsequently been created to relieve and eliminate poverty, particularly among the poor and vulnerable sectors of society (Kapungwe, 2004). Poverty in Zambia is diverse and dynamic, with an upward trend. It is also clear that the relevant authorities have not created adequate local and national programmes to reduce poverty, nor have they acknowledged significant components of its evolution. (Simatele, 2009).

Poverty is unquestionably a socioeconomic burden on humanity. Poverty is a problem that affects the entire globe, not just the poor. We all want to live in a world free of poverty. Sen (1999) defines poverty as not merely a matter of actual income but an inability to acquire certain minimum capabilities. He proposed to remove the capability deprivation and accordingly empower the people to have access to education and a long healthy life in addition to access to subsistence level of income.

The problem of poverty in Zambia has always existed. Several countries, like Zambia, fight to lower poverty. Despite the government's enormous efforts and financial commitments in several initiatives aimed at eliminating it, a sizeable portion of the population still lives below the poverty line. Hence, more investigation is necessary to find solution to this persisting issue. The research aims at comprehending the fundamental causes of poverty, evaluating the efficacy of existing programmes and providing direction for crafting more focused and significant policies. Considering how intricate the poverty is, a sophisticated and all-encompassing strategy is required. This strategy should recognise and deal with the different challenges that people who live in poverty encounter.

In order to effectively address poverty in Zambia, a balanced viewpoint is necessary. Even if the government has put in place a lot of programmes, it's important to investigate the underlying causes of poverty in greater detail and assess the effectiveness of current programmes. It is clear that more targeted policies

are required, and carrying out more research will yield the knowledge required to develop winning plans. Any solution to poverty must consider the variety of difficulties that both individuals and communities face because it is a complicated problem. Zambia may better address the intricacies of poverty and strive towards long-lasting and significant changes in the lives of its people by using an advanced and comprehensive strategy.

II. Plan of Study and Analysis

This work aims at examining what are the challenges Zambia faces in regard to poverty alleviation. The work also discusses Zambia's present poverty situation and puts forward potential prospects and recommendations. This is a descriptive work that has made use of secondary data from many sources, including the Zambia Statistical Agency, the World Bank, and others, for explanations and investigations. There are five sections to this research paper. They are (a) the measurement of poverty, (b) Zambia's poverty situation, (c) existing poverty alleviation programmes (d) the challenges these programmes encounter, and (e) solutions.

A. Measurement of Poverty

There are various disagreements in the poverty literature, indicating that there are considerable variations of opinion on how poverty should be defined and quantified. When measuring poverty, one major policy issue is determining how to apply scientific techniques to determine the appropriate level of resources (typically defined as an income level) at which to distinguish the poor from the non-poor (Gordon, 2006). It is crucial to have a firm grasp of how poverty is measured before exploring the difficulties and opportunities associated with reducing poverty in Zambia. A population's level of poverty may be determined, vulnerable groups can be identified, and the effectiveness of initiatives aimed at reducing poverty can be assessed, all of which depend on the ability to measure poverty. This section aims to examine the several techniques and metrics employed to gauge poverty in Zambia, emphasizing the advantages and disadvantages of different methods. Examining the complexities of measuring poverty helps us to better understand the obstacles to eradicating it and pinpoint possible directions for advancement.

Headcount Ratio (P_0)

In terms of a certain standard, the headcount ratio (HCR) shows the percentage of the population that lives below the poverty level. In India, this is the most commonly used metric. Performing a basic headcount of the impoverished is the most straightforward and often used method of estimating the level of poverty in every community. The headcount ratio, or H, represents the share of the impoverished in the overall population (Subramanian, 2005). It is the primary measure of poverty, indicating the proportion of the population living in poverty. Mathematically speaking, this is:

$$H = \frac{q}{n}$$

where "q" is the number of people living in poverty and "n" is the total population. The degree to which a person's income (or spending) falls below the poverty line is not adequately captured by this metric (Jha, 2003).

Poverty-Gap- Index (PGI)

The Poverty-Gap-Index (PGI) is a ratio of the aggregate poverty gap of all poor families to the minimal normative aggregate spending of the entire (poor and non-poor) population (poverty line multiplied by total population). This is known as the poverty depth measure. The logic is as follows. If you have two populations with the same headcount ratio, the one with a higher PGI value has a greater number of poor who are further away from the poverty line than the other (Tendulkar, 1995). The measure of a country's level of poverty that illustrates the average population's position in relation to the poverty line is called the poverty gap. The poverty gap index indicates the degree of poverty.

$$P_\alpha = \frac{1}{N} \sum_{i=1}^N \left(\frac{G_i}{Z} \right)^\alpha, \alpha \geq 0$$

where N is the sample's size, Z represents the poverty line, G_i is the poverty gap, and α is a parameter; as α increases, the index gives the position of the poorest more weight.

Squared Poverty Gap Index (P_2)

Simply put, this is the total weighted poverty gaps (as a percentage of the poverty line), where the weights are the respective proportionate poverty gaps. In contrast to the poverty gap index, which weights them equally, a poverty gap of (say) 10% of the poverty line is assigned a weight of 10%, but one of 50% is assigned a weight of 50%. Consequently, the metric implicitly provides greater weight to observations that are significantly below the poverty criterion by squaring the poverty gap index. Usually, this is written as:

$$P_2 = \frac{1}{N} \sum_{i=1}^N \left(\frac{G_i}{Z}\right)^2$$

where P_2 represents the total weighted poverty gaps, N is the number of observations, G_i is the poverty gap for each observation, and Z is the poverty line.

Sen Index

Sen (1976) makes a strong case for the use of a three-pronged approach to measure and assess poverty, one that accounts for the percentage of the population that lives below the poverty line, the income disparities that exist among the poor, and the discrepancy in income among the poor. Sen contends that a distribution-sensitive measure of poverty is necessary, meaning that the overall poverty index must account for income transfers among the impoverished. Sen's poverty index is founded on the concept of relative deprivation, which states that the poor perceive their deprivation based on their relative position in the reference group, which comprises of other poor individuals. Sen utilises each poor person's standing among the poor as a gauge of relative deprivation by drawing parallels to the Borda rank-order voting process. Sen proposes an index that calculates the total income disparities between each individual's income and the poverty threshold, taking into account each person's relative position among the poor. This approach aims to incorporate crucial aspects of poverty, as outlined by Bishop (1997). Sen's poverty measure is grounded in specific principles related to welfare considerations, including the focus axiom, monotonicity, continuity, and transfer axiom. This is given by,

$$P_{SST} = P_0 P_1^P (1 + G^P)$$

Where P_0 is the headcount index,

P_1^P is the poverty gap index for the poor only,

and G^P is the Gini index for the poverty gaps for the whole population.

This measurement enables the breakdown of poverty into three elements and prompts questions such as: Are there increased numbers of impoverished individuals? Have the living conditions of the poor worsened? And is there greater disparity in wealth among those living in poverty?

Foster-Greer-Thorbecke (FGT) Index

Erik Thorbecke, Joel Greer, and James Foster created the Foster-Greer-Thorbecke (FGT) index as a generalised poverty indicator. When calculating poverty in the economy, it takes into account the disparity between the poor and gives the option to vary the weight given to income levels (Neway, 2022). The FGT index is a decomposable measure of poverty that establishes a connection between general poverty and the degrees of poverty in certain demographic subgroups. The change in the FGT index may be divided into two parts: one caused by economic development and the other by income redistribution. FGT uses the formula as shown below.

The measures:

$$P_{\alpha} = \frac{1}{n} \sum_{i=1}^q \left(\frac{L - C_i}{L} \right)^{\alpha}, (\alpha \geq 0)$$

P_{α} – poverty gap index,

here: for poverty gap $\alpha=1$,

L – poverty line,

C – average consumption expenses per adult equivalent person,

i - individual persons,

n – total number of persons,

q – number of persons with average consumption expenses per adult equivalent persons lower than the poverty line.

Purchasing Power Parity (PPP)

Purchasing power parity (PPP) is a prominent macroeconomic statistic that compares the currencies of various nations using a “basket of goods” method. Purchasing power parity (PPP) allows economists to compare economic production and living standards across countries. Some nations modify their GDP estimates to account for PPP.

PPP is calculated with the following formula:

$$S = \frac{P_1}{P_2}$$

S = Currency 1 to Currency 2 exchange rate

P 1 = Cost of good X in currency 1

P 2 = Cost of good X in currency 2

Poverty Line

The poverty threshold for an individual is the financial level necessary to achieve a basic standard of ‘welfare,’ ensuring they are not labeled as ‘poor’ given their particular situation (Ravallion, 2008). The poverty line is computed by translating the poverty threshold from each nation (Considering the cost of the supplies needed to maintain one adult) into dollars. The current worldwide poverty limit is \$1.90 per day. The World Bank updates the international poverty line on a regular basis as the cost of living for essential food, clothes, and shelter varies across the world (Karan,2019). The poverty line was established at \$1.25 per day in the 2008 update. The new threshold, which is \$1.90 per pay right now, was established in 2015.

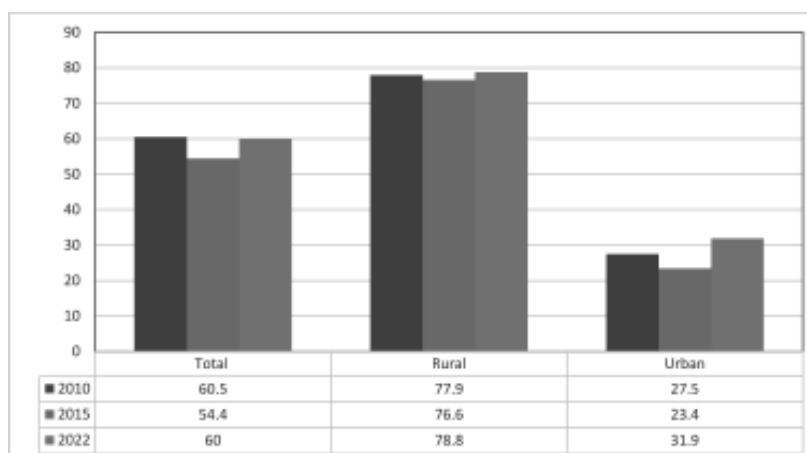
B. Poverty Situation in Zambia

The Zambian government, along with many others in Sub-Saharan Africa, grapples with the challenge of reducing widespread poverty. Poverty is not just a simple issue; it has many dimensions and complex causes. Despite this complexity, it’s important to recognize that households living in poverty struggle to meet basic needs and achieve a decent standard of living (Schröder, 2002). This makes it difficult to fully understand and address poverty in Zambia, as it requires various methods and approaches. The Zambian economy was strong when the country gained independence, but things started to go downhill in the mid-1970s. The trouble began when the price of oil worldwide shot up in 1973, and then copper prices, which Zambia depends on, dropped sharply in 1974. This led to a big decrease in Zambia’s ability to trade fairly, and it marked a big change for the worse in the country’s economic and social situation. It also made it harder for the government to provide essential services to its people. Regrettably, in response to the deteriorating economic climate, Zambia neglected to modify its economic policies as needed (Malaluan,

2003). For instance, there was an increase in foreign borrowing to ensure, among other things, that living standards would not fall in line with economic realities. Subsequently, in order to accomplish a similar goal, broad price controls were imposed, specifically for consumer items. Regrettably, these may not be long-term viable strategies to combat poverty. They also had the drawback of causing distortions in the economy (Bwalya, 2004). Starting from the mid-1980s, Zambia went through a significant economic downturn, one of the fastest in Sub-Saharan Africa. This period was marked by shortages of goods and foreign currency, as well as an uncompetitive industry in export markets. While some of these problems improved in the 1990s, high inflation became a major concern, although it decreased towards the end of the decade. Despite these changes, Zambia’s economy has not adapted much to address the new challenges it faces, such as a rapidly growing population. Sectors like agriculture and tourism have not reached their full potential, and although manufacturing initially grew, it struggled to compete with imported goods when the economy opened up in the mid-1990s. The mining industry has the most significant structural challenges as a result of a sharp reduction in output that has compounded the negative effects of periodic price declines. Right now, copper output is only around one-third of what it was a century ago. Consequently, it has proven difficult to achieve consistent high economic growth, which has caused poverty rates to steadily rise over time (Ministry of Finance and Economic Development, 2000).

Poverty has been caused by a wide range of reasons in both rural and urban regions. Agriculture still dominates the rural economy, and the high rates of poverty among small-scale farmers are glaring examples of how stagnant this sector has become. According to the 1994 Beneficiary Assessment, rural poverty is characterized by shortages of food, money, and assets. Additionally, rural areas lack safety nets and access to social services, contributing to poverty. Urban poverty has its unique features, mainly tied to employment opportunities, both formal and informal. Urban dwellers, due to their close connection to the market economy, often face challenges such as rising unemployment, leading many to reside in unplanned settlements on the outskirts of cities. These settlements often lack access to clean water and sanitation, making residents vulnerable to diseases. The 1994 Zambia Poverty Assessment revealed that petty trading is the primary occupation in the informal urban sector, with women comprising the majority. Children are frequently kept out of school to help support their families, resulting in a rise in child traders and street children in urban areas. One of the countries in the world with the highest rates of poverty and inequality is Zambia. With the start of the COVID-19 pandemic, the incidence of poverty increased; however, by 2025, it is predicted to gradually return to pre-pandemic levels, reflecting the continued growth in the construction and services sectors, which should help the urban poor and reverse the recent rise in urban poverty.

Figure 01 : Poverty Trends (percent) by Residence, Zambia, 2010, 2015 and 2022



Source: Zambia Statistics Agency, Highlights of the 2022 Poverty Assessment in Zambia.

In 2022, the national incidence of poverty in Zambia rose to 60.0 percent, marking a significant increase from the 2015 figure of 54.4 percent. This means that 60 out of every 100 individuals in the country were

considered poor during the survey period. A closer examination of rural-urban disparities reveals that poverty remains disproportionately concentrated in rural areas, with a staggering 78.8 percent of the rural population experiencing poverty, slightly up from the 2015 rate of 76.6 percent. Even though urban areas generally have lower poverty rates, there was a noticeable uptick from 23.4 percent in 2015 to 31.9 percent in 2022. (see figure 01). Even if the percentage of people living in poverty has increased overall, the sharp difference between rural and urban regions highlights how difficult it is to confront and reduce poverty in Zambia.

C. Poverty Alleviation Programmes in Zambia

The poverty alleviation programmes are classified into (i) self-employment programmes; (ii) wage employment programmes; (iii) food security programmes; (iv) social security programmes; and (v) urban poverty alleviation programmes (Yesudian, 2007). Government initiatives to reduce poverty have been a longstanding approach worldwide. Governments adopt various strategies to address poverty and its underlying causes. Over time, these initiatives are reviewed, modified, and, if deemed ineffective, either reformed or discontinued. Poverty alleviation programmes serve as a direct assault on poverty, aiming to uplift the poor by generating additional income. This involves empowering those below the poverty line with increased purchasing power. The government must create safety nets for such groups and work to include them into the development process. They require social measures like poverty alleviation schemes to guarantee that they survive, if not thrive. Furthermore, the poor are not a homogenous group, and their ability to endure the economic change differed from one group to another. More government assistance is especially needed for people living below the poverty line or among the poorest of the poor (Yesudian, 2007). This section delves into the poverty alleviation programmes implemented in Zambia, some of which remain in effect, while others have been phased out.

The major poverty alleviation programmes implemented in Zambia through government programmes are: Social Cash Transfer (SCT), Farmer Input Support Programme (FISP), Public Welfare Assistance Scheme (PWAS), Youth Empowerment Programme (YEP), Constituency Development Fund (CDF), Women Empowerment and Livelihoods Programme (WELP), National Skill Youth Empowerment Programme (NSYEP), and Home Grown School Meals (HGSM).

Social Cash Transfer (SCT)

The Ministry of Community Development and Social Services (MCDSS) oversees the Social Cash Transfer (SCT) Programme, a Government of the Republic of Zambia (GRZ) initiative that has been running in Zambia since 2003. Households receiving benefits are entitled to 200 Zambian Kwacha (688 Indian Rupees) each month, which they get as a lump payment of 400 Zambian Kwacha (1376 Indian Rupees) every two months. Families receiving benefits who have a relative with a serious handicap receive twice as much, or 400 Kwacha (1376 Indian Rupees) each month and 800 Kwacha (2752 Indian Rupees) every two months. In Zambia, social cash transfer payments to recipients are often made using one of three methods: cash, mobile network payments, or traditional bank account transfers. The primary household beneficiary or a designated deputy is responsible for accepting payments. Under this programme the beneficiaries are considered on the following account:

1. Homes with an elderly member: A home is considered to have an elderly member if the member is 65 years old or older and have a National Registration Card (NRC) to prove it.
2. Households with severe disabilities: These are households where at least one person has a severe disability, as shown by a card from the Zambia Agency for Persons with Disabilities (ZAPD) or a Disability Medical Assessment Slip.
3. Households with members who are chronically ill and receiving palliative care: If a household has a Medical Assessment Slip indicating that a person is chronically ill and receiving palliative care, it is deemed to have such a member.

4. Households led by children: A home is deemed to be headed by children if the head of the family is under the age of 19; is not married; and is confirmed to be a child-headed household by community members.
5. Households led by women and comprising three or more children: The community members have verified that this is a female-headed household, with a female aged between the ages of 19 and 64. She is single, has at least three children under the age of 19, and works.

Based on a means and needs test, a household is qualified if it is unable to satisfy essential needs. Based on a Household Living Conditions Index, the Management Information System (MIS) automatically calculates the expected welfare.

Farmer Input Support Programme (FISP)

Originally known as the Fertiliser Support Programme (FSP), the Farmer Input Support Programme (FISP) was initially established in 2001. It was later updated and given the name Farmer Input Support Programme (FISP) in 2009. The input pack size provided to farmers under FISP was decreased from eight 50 kg bags of fertiliser and one 20 kg bag of maize seed to four 50 kg bags of fertiliser and one 10 kg bag of maize seed. Small-scale farmers with limited access to productive assets and difficulties obtaining agricultural inputs are the main population that FISP primarily serves. The programme's target audience includes disadvantaged populations including farmers in isolated rural locations and homes led by women. The agricultural inputs are partially funded by the government as part of the FISP's subsidy procedure, which lowers the cost for farmers. The government's financial allocation and agricultural policy determine the precise subsidy amount, which might change from year to year (Mofya et al. 2013).

Public Welfare Assistance Scheme (PWAS)

The Public Welfare Assistance Scheme (PWAS) is the government's initiative for social assistance with the goal of reducing social and economic shocks as well as other detrimental impacts like poverty and the HIV/AIDS epidemic. PWAS helps the most vulnerable members of society meet their fundamental requirements, including those for food, shelter, health care, and education, and it is important for communities to build their capacity to deal with issues like extreme poverty and vulnerability. PWAS focuses on the severely impoverished elderly, orphans and neglected children, those with chronic illnesses or disabilities, and families headed by women. Children from households registered under PWAS are provided with necessary school requirements. The Scheme caters for primary and secondary pupils only and does not extend to tertiary level.

Youth Empowerment Programme (YEP)

As young people are thought to be a crucial demographic for intervention and assistance, the programme often targets people between a certain age range, frequently between 15 and 35. Economically disadvantaged kids who confront major obstacles to obtaining opportunities are often given priority by the programme. Being from a community or household with low income is one of the requirements, as is being unemployed or working part-time. Zambia's Youth Empowerment Programme strives to give young people the knowledge, opportunity, and resources they need to develop into successful and self-sufficient adults. By giving financially disadvantaged kids scholarships, bursaries, or other financial aid, the programme aims to reduce barriers to study. It seeks to boost enrolment rates and enhance academic results, preparing young people for their future endeavours with information and skills. The programme seeks to foster in young people an entrepreneurial attitude to encourage the development of sustainable enterprises. The Youth Empowerment Programme (YEP) offers mentoring programmes to young entrepreneurs, access to funding, and business development services. The project seeks to lower obstacles to education by providing scholarships, bursaries, or other financial help to financially underprivileged children. It aims to increase enrolment rates and academic performance, equipping young people with knowledge and skills for their future ambitions (International Labour Organization, 2012).

Constituency Development Fund (CDF)

The Constituency Development Fund (CDF) programme was established in 2006. The CDF allots money to assist social welfare activities, such as those aimed at disadvantaged populations including orphans, the elderly, and those with disabilities. These initiatives concentrate on enhancing social security, healthcare, education, and other vital services. The Community Development Foundation (CDF) strategically allocates resources to support initiatives aimed at enhancing the skills and knowledge of community members. By focusing on education in entrepreneurship, management, and leadership programmes, the CDF empowers individuals to actively contribute to regional development. Through these educational efforts, people are equipped to play a pivotal role in generating sustainable solutions to poverty. The CDF further champions programmes that foster job creation, small enterprises, vocational training, and agricultural projects, fostering a holistic approach to community empowerment and growth. The CDF offers funding to Members of Parliament (MPs) in each constituency to carry out development projects in accordance with the requirements and priorities of their particular communities by providing resources and training.

Women Empowerment and Livelihoods Program (WELP)

WELP programmes frequently target marginalised and vulnerable women, particularly those living in rural areas, young women, and households led by women. It incorporates a variety of initiatives, including access to financial services, market connections, training and capacity building, and mentorship assistance. In order to achieve sustainable development and eradicate poverty, the programme acknowledges the significance of gender equality and women's economic empowerment. Hence, WELP increases the women's access to market places and value chains. (Ministry of community development and social services 2021).

National Skill Youth Empowerment Programme (NSYEP)

By giving youth useful skills and enhancing their employability, the NSYEP seeks to minimise youth unemployment and underemployment. In most cases, the programme is carried out by government agencies, including the Ministry of Youth, Sport, and Child Development, in coordination with educational institutions, businesses, and development partners. In order to provide youth with the practical skills that are on demand in the job market, NSYEP primarily focuses on providing technical and vocational education and training (TVET). To ensure the relevance and calibre of the training programmes, it comprises collaborations with institutions, businesses, and vocational training facilities.

Home Grown School Meals (HGSM)

The 'Home Grown School Meals' initiative seeks to deliver higher quality, nutritious school meals to 800,000 children across the country every school day, with the goal of enhancing both the productivity and welfare of small-scale farming households. The programme also aims to increase the productive potential of small-holder farmers by connecting them to a ready market, (in this case, the schools). Farmers are reached through cooperatives and are taught crop aggregating skills to ensure quality assurance. This allows them to gain access to markets they would not have had otherwise. The programme provides education and nutrition training to school catering staff, teachers and parents to improve knowledge surrounding vegetable production. The schools receive vegetable demonstration plots, along with tools, equipment and seeds so schoolchildren can plant and grow their own crops. The programme focuses on districts with high rates of food insecurity and low educational attainment, as well as high rates of HIV, poverty, and malnutrition. Selected district applies the saturation concept to all schools in the area. This is critical because failure to do so would result in children being transferred from non-feeding schools to feeding schools.

D. Challenges to Poverty Alleviation

Numerous challenges hinder the country's efforts in alleviating poverty. This section highlights the complex obstacles, to foster a deeper understanding of the multifaceted issues that hinder the effective poverty alleviation strategies.

Among the most critical problems is a lack of proper infrastructure and resources. Zambia, like many other developing countries, suffers from a lack of infrastructure, including roads, power, and water supplies. This makes it harder to provide help and assistance to rural regions where poverty is rampant. Furthermore, lack of resources makes it difficult to undertake poverty alleviation programmes, as there may not be enough funds or supplies to support these projects. Rural areas suffered from relative isolation caused by poor infrastructure investment and social spending (Thurlow, 2004). On just about every aspect of infrastructure, rural Zambians lag well behind their African peers. In a country where 70 percent of the population depends on agriculture for its livelihood, this represents a huge drag on the economy (Foster, 2011).

Long and difficult administrative processes are frequent in Zambia's business climate, prompting many enterprises to operate in the informal sector. The risk of widespread usage of facilitation payments is likewise significant owing to bureaucratic procedures. Government programmes have also failed to reach the great majority of vulnerable individuals who live on or near the poverty line. It also demonstrates that rapid development is insufficient to alleviate poverty. Any programme cannot be implemented successfully unless the poor actively participate.

The Zambian aid policy has been officially sanctioned. The department of Extended Credit Facility (ECF) is functioning similarly to its operations two decades ago, with ongoing revisions to its structure to facilitate donor coordination efforts. While the Fifth National Development Plan shows promise in its overarching policy direction, the critical hurdle lies in executing these policies effectively, particularly given the persistent weaknesses in governance within Zambia. While transparency and accountability measures are crucial, it's imperative to recognize that ineffective policies will yield adverse outcomes regardless of how transparently and accountably they are implemented.

Corruption, while lacking a uniform definition, is sometimes defined as the misuse of office for personal benefit; or the exploitation of an office bearer's official position, rank, or prestige for personal advantage (Shah, 2007). Business Anti-Corruption Portal (UNDP) reported in April 2014 that Zambia is significantly better than other countries in Southern Africa in the case of corruption. Zambia received a score of 33 on a scale of 0 ("highly corrupt") to 100 ("very clean") in Transparency International's 2022 Corruption Perceptions Index (Transparency.org 2023). In 2018, the United Kingdom, Finland, Ireland, and Sweden suspended \$34 million in financial help to Zambia owing to corruption and financial mismanagement. A year later, Britain pushed Zambia to implement significant anti-corruption measures in order to get financial support (Olivia Kumwenda-Mtambo, 2019). Corruption weakens the efforts to poverty alleviation, diverts funds, distorts policies, and reduces public trust. Corruption perpetuates poverty and inequality, and discourages foreign aid and investment.

Zambia is a developing nation that must learn from and examine what developed countries have done or are doing in order to properly execute policies. Majority of the financial resources are spent on administration; therefore, the poor do not benefit satisfactorily. Zambia needs a more robust framework to combat corruption and corrupt practises in accordance with poverty reduction efforts. Decentralisation of government initiatives to the province, then to the district and ward levels, would primarily assist the most vulnerable because it is difficult to identify, know, and account for the poor. There is a strong need for proper project evaluation techniques to be incorporated in the Public Expenditure Management (PEM) systems in Zambia.

E. Solutions

Many initiatives have been started in Zambia in an effort to combat poverty in a way that will actually make an impact. Nevertheless, in spite of these initiatives, there continue to be obvious deficiencies in the system that appears to prevent any appreciable decline in the rate of poverty. Even while every programme demonstrates a strong commitment to identify its intended audience, many of them share a discontinuity. Programmes often have similar demographic goals and intervention tactics, which can result in inefficiencies

and reduced impact. Moreover, the difficulty is exacerbated by certain programmes ending too soon, which prevents them from maturing and producing significant outcomes. Zambia's current poverty rate highlights the urgent need for a thorough and coordinated effort to address the underlying causes of poverty. Although the significance of programmes aimed at reducing poverty is acknowledged, their efficacy is still debatable given the continuous obstacles. As a result, there is a strong argument for the Zambian government to take the initiative in the fight against poverty. This calls for supporting current programmes in addition to looking into novel ways to more successfully combat poverty.

III. Conclusion

It becomes clear that funding research and development is essential to the battle against poverty. Zambia can obtain important insights into the effectiveness and reach of implemented initiatives by carrying out comprehensive evaluations of them. Additionally, research can illuminate the root causes of poverty, guiding the development of more focused remedies. In the end, Zambia can set the path for significant poverty reduction and sustainable economic development by utilizing research and taking proactive actions.

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Burden of Malnutrition among Adults in South-Asian Countries: A Study Based on the WHO Global Health Observatory

Revathi U.
& Sheeja S.R.

Nutrition is a vital component of health and development. Given this, malnutrition remains a serious health issue that the global community struggles to deal with. Every nation struggles to fight with one or the other forms of malnutrition. Since high Economic cost in the form of public health financing and human resources depreciation is associated with the presence of malnutrition, analysing its burden at the global and regional is essential to formulate policies to tackle the issue. Drawing upon the WHO Global Health Observatory data, the paper delves into an extensive analysis of the nutritional profile of adults in South Asian countries.

Keywords : South Asia, Malnutrition, Overweight, Underweight, Obesity

Introduction

Nutrition is a vital component of health and development. Given this, malnutrition is a serious health issue that the global community struggles to deal with. Malnutrition, in its very essence, refers to "deficiencies, excesses, or imbalances in persons intake of energy and/or nutrient. The term malnutrition covers two broad groups of conditions. One is 'Undernutrition'...and micronutrient deficiencies or insufficiencies The other is Overweight, obesity and diet-related non communicable diseases" (Malnutrition, n.d.). Quoting the WHO policy Brief 'one in three persons globally suffer from at least one form of malnutrition: wasting, stunting, vitamin and mineral deficiency, overweight or obesity, and diet related NCDs' (The Double Burden of Malnutrition, n.d.). The coexistence of the issue of both the Undernourishment and overweight is evident from the statistics that when in 2014, nearly 462 million adults were underweight, 1.9 billion people were also overweight or obese (NCD Risk Factor Collaboration (NCD-RisC), 2016). Since malnutrition persists at an elevated level globally, the progress in the path for tackling the issue seems to be insufficient for meeting the 2025 nutritional target despite the improvement in the selected nutrition indicators.

Every nation, struggles to deal with one or more form of malnutrition, referred to as the Multiple burden of malnutrition. The double/multiple burden of malnutrition is the coexistence of more than one form of malnutrition at the national community or individual level and can affect all countries, irrespective of their economic status (Fanzo & Davis, 2021). The prevalence of the multiple burden of malnutrition is considerably higher in the poor economies. Based on a thirty per cent prevalence criteria 18 per cent of the low and middle income nations faced the double burden of malnutrition (i.e., a BMI of greater than 25 kg/m² for more than 30 per cent of the adult population in that country), however, the same rose to 28 per cent in the 2010s. Though some regions like Middle East and Latin America showed improvement in the double burden of malnutrition, it continues to be highly prevalent in Sub-Saharan Africa, South Asia, East Asia, and the Pacific region. The disparity in the presence of the double burden of malnutrition does exist between the different income groups within the LMIC countries. While obesity is on the rise in the low-wealth households of regions of Latin America, the same is prevalent more among the high-wealth households of regions in South Asia. Underweight and overweight place an economic cost on health care system and society as they have multifaced consequences for an individual in terms of longevity and disability. Since high Economic cost in the form of

public health financing and human resources depreciation is associated with malnutrition, analysing its burden at the global and regional level is essential to formulate policies to tackle the issue.

Many authors have elaborated on the issue in their studies, but most are country-specific or review-based studies focusing on women and child health. Moreover, the existing studies on malnutrition among adults in South Asian countries are based on national survey-based data. The national surveys in the South Asian countries are not conducted during the same period but in different periods across different countries. This very reason makes these figures incomparable across countries. However, the present study uses the annual data from WHO, where the prevalence rate reported is for the same years across countries. Hence, this study attempts to investigate the burden of malnutrition among adults in all the South Asian countries to get a comparative picture of the prevalence of malnutrition.

Data and method

Conceptualisation of the study: The study's main objective is to provide a comparative analysis of the prevalence of malnutrition among adults aged 18 years and above in South Asian countries. Though the term malnutrition mainly encompasses all three forms of nutritional imbalances, namely undernutrition, overnutrition, and micronutrient deficiencies, the present study will focus only on the age-standardised prevalence of undernutrition and overnutrition in adults (18+ age group) by considering the following independent variables: mean BMI, underweight and overweight/obesity prevalence.

Data Sources: Since the study focuses on the prevalence of malnutrition in South Asian countries, gender-specific and country-specific secondary data on the above-specified variables is used for analysis. Secondary data on BMI, overweight, underweight, and obesity retrieved from the WHO global health repository for a period that ranges between 1975 to 2016 for the South Asian countries: Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan, and Sri Lanka are used for analysis. Global Health Repository is a gateway that serves as a quick and easy access point to health-related statistics of 194 members of the World Health Organisation and helps in the comparability of health-related statistics across countries and time.

Inclusion and Exclusion Criteria: The study is limited to the analysis of malnutrition prevalence among adults 18 years of age and above. Also, the study is further regionally restricted to the South Asian Countries that are geographically proximate to each other and share similar socio-cultural contexts. Hence, the countries considered for the study are Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan, and Sri Lanka.

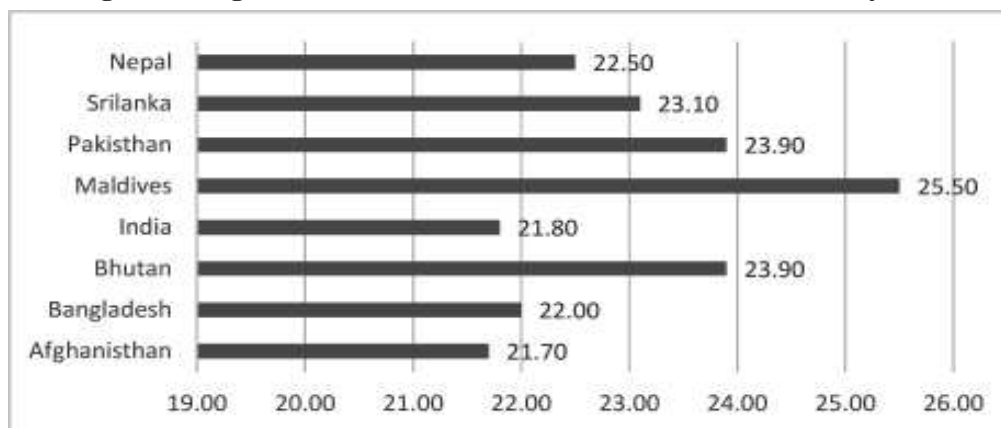
Description of Variable: The variables considered for the study are the anthropometric indicators, namely, Mean Body Mass Index (BMI), underweight, overweight, and obesity. These are common indicators used by researchers to get valuable insight into the nutritional status be it that of an individual or a population. Body Mass Index is a simple index of weight for height, and since its calculation remains same for all, across gender and age among the adults, is considered as a suitable indicator to classify the underweight and overweight/ obesity among adults (World Health Organization: WHO, 2021d). As per the WHO definition BMI is 'a person's weight in kilograms divided by the square of his height in meters (Kg/m^2). For adults overweight is a BMI greater than or equal to $25 \text{ Kg}/\text{m}^2$ and obesity is a BMI equal to or greater than $30 \text{ Kg}/\text{m}^2$ ' (Obesity and Overweight, 2021.). On the other hand, a person is said to be underweight if they have a BMI less than $18.5 \text{ Kg}/\text{m}^2$ (World Health Organization: WHO, 2010).

Statistical Analysis: For analysis descriptive statistics like percentages and growth rates are used in the study. Since the data on the prevalence of malnutrition is available only till 2016, forecasting of the variables using the forecast sheet of Microsoft Excel is done in the study. The result is presented using the trend line and bar graph. The nonparametric test of Kruskal Wallis was also exercised for a comparative study among the South Asian countries and to see if significant differences exist in the selected countries on the variables considered.

Results

BMI is the most common anthropometric indicator for assessing the nutritional status of the individuals and population of a nation. The age-standardised mean BMI for the South Asian Countries for 2016 and the forecasted value of the same are depicted in Figure 1 and Figure 2, respectively.

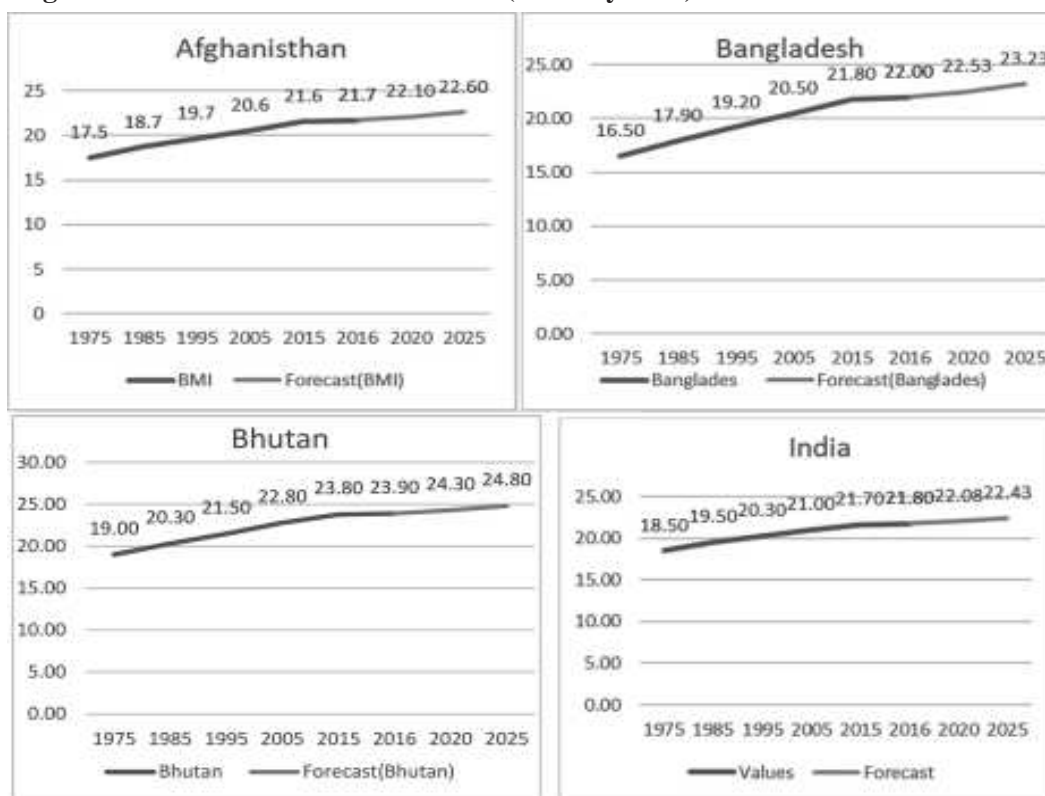
Figure-1 : Age standardised mean BMI in South Asia (Country wise)

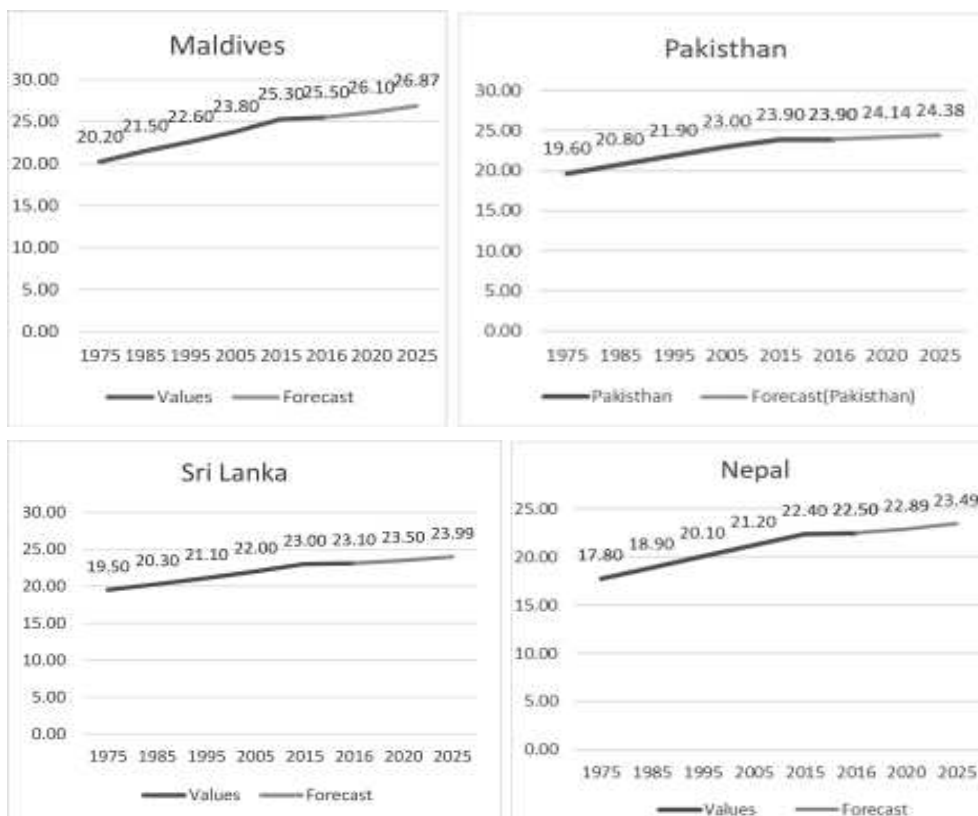


Source: WHO,GHO

Among the nations under the study interest, Maldives has the highest BMI. The mean BMI in Maldives is 25.50 Kg/m², whereas in Bhutan and Pakistan, it is 23.90 Kg/m². In contrast to other countries, Nepal, India, and Bangladesh recorded a moderate mean BMI of 22.50 Kg/m², 21.80 Kg/m², and 22.0 Kg/m², respectively. Among these eight countries, the lowest mean BMI is seen in Afghanistan. The mean BMI of Afghanistan is 21.70 Kg/m², representing a relatively healthier BMI among the countries considered in the study. The general trend in the age-standardised BMI in adults in the South Asian country is shown in the following figure 2.

Figure 2 : Age-Standardised BMI in South Asia (Country wise)





Source: Author's compilation based on WHO GHO data

The figure 2 shows the general trend in the distribution of age-standardised mean BMI in the South Asian Countries. The decadal-wise analysis indicates that there has been an increasing trend in the mean BMI in Afghanistan. The Mean BMI, 17.50 in 1975, increased to 18.7 Kg/m² and 19.70 Kg/m² in 1985 and 1995, respectively. It further rose to 20.60 Kg/m² and 21.60 Kg/m² in 2005 and 2015, respectively. In 2016, the mean BMI for Afghanistan was 21.70 Kg/m². The forecasted values of the mean BMI for the years 2022 and 2025 are 22.3 Kg/m² and 22.60 Kg/m², respectively. Though the mean BMI for Afghanistan post-2016 shows an upward trend, the rate of change has been showing a slight decline. This increasing trend in the Mean BMI indicates the risk of obesity and overweight in the country.

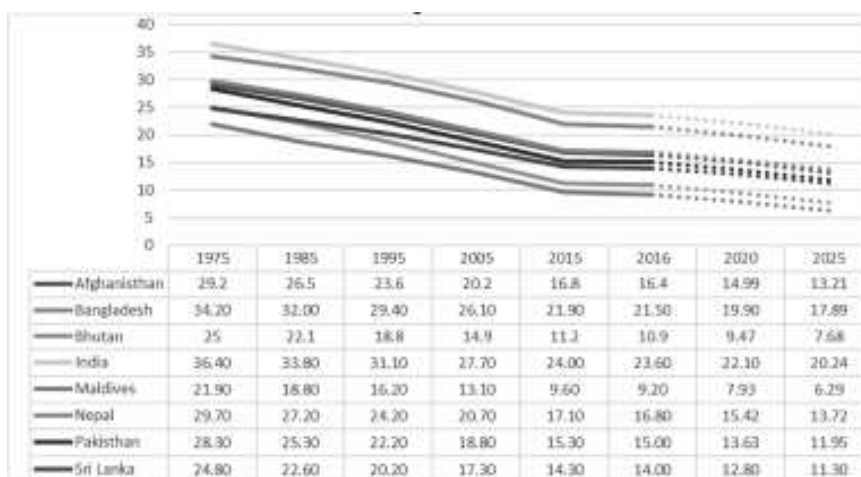
Similar to the trend reported by Afghanistan, Bhutan also shows an increasing trend in the mean BMI between 1975 and 2016. The mean BMI in 1975 for the country was 16.50 Kg/m². This figure, however, increased to 17.90 Kg/m², 19.20 Kg/m², 20.50 Kg/m², and 21.80 Kg/m² in the years 1985, 1995, 2005, and 2015, respectively. The Mean BMI further increased by 0.91 per cent between 2015 and 2016. The Mean BMI is expected to increase to a further 22.81 Kg/m² and 23.23 Kg/m², respectively, for 2022 and 2025. In the case of Bhutan, the mean BMI has been showing an increasing trend from the starting point of the period of analysis. In 1975, the mean BMI, which was 19.00 Kg/m², rose to 20.30 Kg/m² in 1985. The figure also showed an increasing trend in the following years, with the mean BMI value being 21.50 Kg/m², 22.80 Kg/m², and 23.80 Kg/m² in 1995, 2005, and 2015, respectively. In 2016, the mean BMI for Bhutan was 23.90 Kg/m² and is expected to increase to 24.80 Kg/m² in 2025. India witnessed a steep increase in its mean BMI value. There was an increase in mean BMI value from 18.50 Kg/m² to 19.50 Kg/m² between 1975 and 1985. The mean BMI further rose to 21.80 Kg/m² in 2016 and is forecasted to hike to 22.43 Kg/m² in 2025. Like any other South Asian country, Maldives, Nepal, Pakistan, and Sri Lanka also witnessed an increasing trend in the mean BMI over the period. The mean BMI, which was 20.20 Kg/m², 19.60 Kg/m², 17.80 Kg/m², and 19.50 Kg/m², respectively, for Maldives, Pakistan, Nepal, and Sri Lanka in the year 1975, rose to 25.50 Kg/m², 23.90 Kg/m², 22.50 Kg/m², and 23.10 Kg/m², respectively. The BMI is further expected to take up a higher value of 26.8 Kg/m², 24.38 Kg/m², 23.99 Kg/m², and 24.49 Kg/m² by the earlier mentioned nations in 2025.

Based on the BMI categorisation of the country's individuals, it is possible to understand the prevalence of obesity, overweight, and underweight in that country. The prevalence of underweight, overweight, and obesity in South Asian countries over the years based on the WHO BMI cut-off is analysed in the following paragraph.

Underweight: All nations show a downward trend in the prevalence of underweight between 1975 and 2016. The decadal trend on the age-standardised prevalence of underweight among adults is depicted in Figure 3. Between 1975 and 2016, the prevalence decreased by 12.80, 12.7, 12.8, 12.7, 12.9, and 13.3 per cent, respectively, for Afghanistan, Bangladesh, India, Maldives, Nepal, and Pakistan. The forecasted value for the prevalence of underweight also shows a falling trend, as shown in Figure 3. The highest fall in the prevalence of underweight was seen in Bhutan, while the lowest decline was in Sri Lanka. The average annual fall in the prevalence of underweight in Bhutan was 0.33 per cent, and that in Sri Lanka was 0.25 per cent.

Overweight: All the selected South Asian countries, as indicated by the trend in Figure 4, experienced an increasing trend in the prevalence of overweight between 1975 and 2016. In 2016, the prevalence of overweight was relatively higher for Maldives, Pakistan, and Bhutan, the prevalence being 30.6 per cent, 28 per cent, and 27.10 per cent respectively. This prevalence rate was followed by Sri Lanka, Afghanistan, and Nepal, with their respective figures of 23.30 per cent, 23 per cent, and 21.0 percent. However, India showed a lower prevalence of overweight (19.70 per cent) compared to other countries under consideration. This trend continues in the post-2015 period, as reflected by the forecasted values in figure 4.

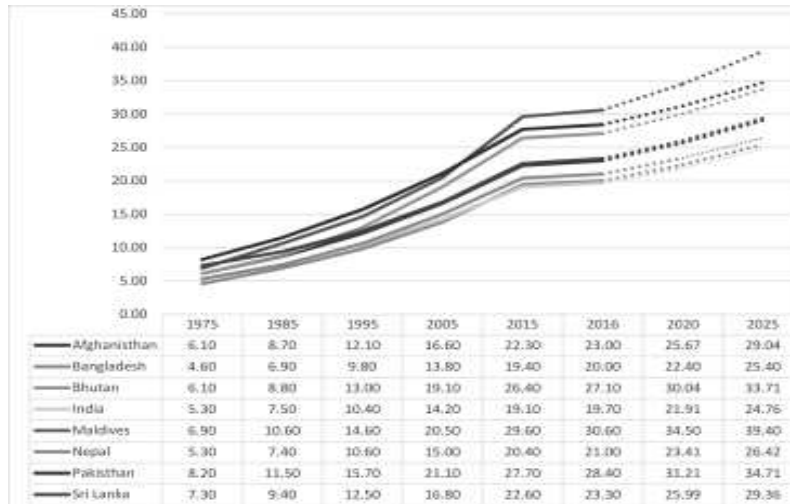
Figure 3 : Prevalence of Underweight in South Asian Countries



Source: Author's compilation based on WHO GHO data

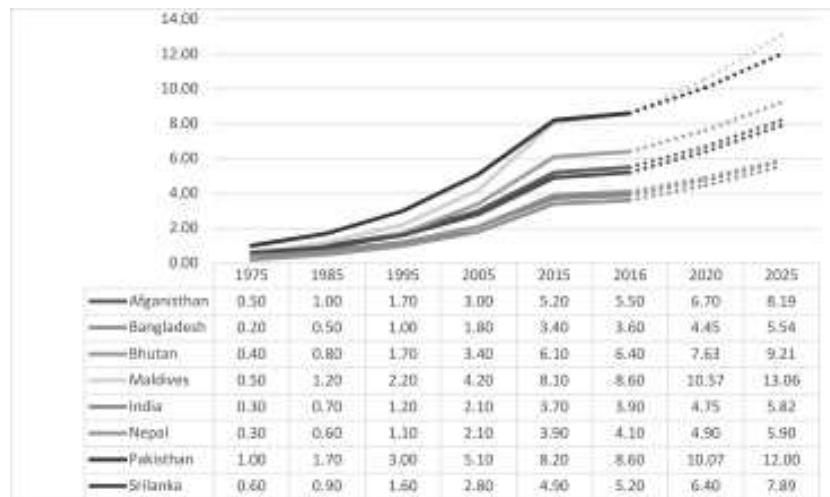
Obesity: The obesity prevalence, as indicated by figure 5, is showing an upward trend in all the South Asian nations under the study. The prevalence of obesity among adults, which was 0.5, 0.20, 0.40, 0.30, 0.50, 0.30, 1.00 and 0.60 per cent in the year 1975, rose to 5.50, 3.60, 6.40, 3.90, 8.60, 4.10, 8.60 and 5.20 per cent in 2016 for Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka respectively. The highest change in the prevalence was observed in Bangladesh. Between 1975 and 2016, the prevalence of obesity in Bangladesh has risen from 0.20 to 3.60 percentage points, indicating a substantial increase of approximately seventeen times. On the other hand, the rise in obesity prevalence was lowest in Pakistan and Sri Lanka. Though the growth in the prevalence rate is lowest in Pakistan, it should be noted that it stands second with the highest prevalence rate among the countries studied. Both nations witnessed a rise in Obesity prevalence by approximately 7.6 times. Post-2016, all the countries continued to see an increasing trend in obesity prevalence, as indicated by the forecasted values.

Figure 4 : Prevalence of overweight in South Asian Countries



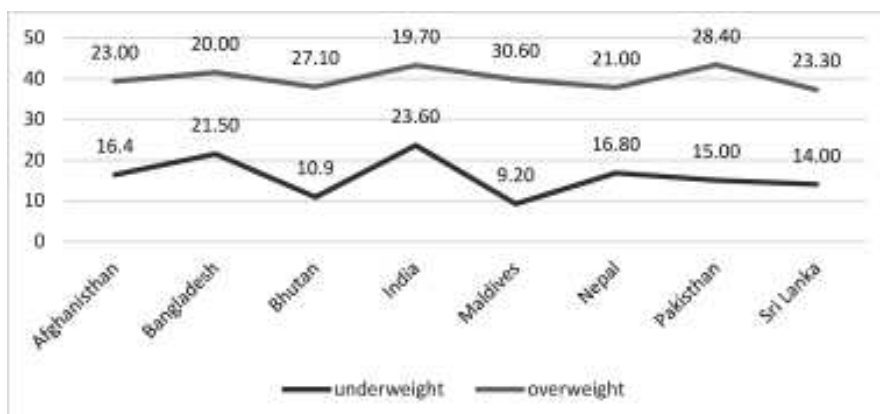
Source: Author's compilation based on WHO GHO data

Figure 5 : Prevalence of Obesity in South Asian Countries



Source: Author's compilation based on WHO, GHO data

Figure 6 : Double Burden of Malnutrition



Source: Author's compilation based on WHO, GHO data

From the data on the prevalence of underweight and overweight plotted together in the figure 6, it is evident that there exists a double burden of malnutrition in South Asian country particularly in India,

Bangladesh and Nepal. The distribution of mean BMI and the prevalence of underweight, overweight, and obesity vary amongst South Asian nations, however the differences are not statistically significant because the Kruskal Wallis test's p-value is greater than 0.05. The result of the Kruskal Wallis test is given as Appendix.

Discussion

Obesity/Overweight is a widely recognised public health issue in many developed nations. The studies conducted so far show that the obesity/overweight-related DALY is higher in developed nations compared to the developing nations. In developing low-and middle-income countries, the focus has always been on the issue of undernourishment. Though the prevalence, trends, and determinants of obesity and overweight have been extensively reported in Western countries, less is known regarding the South Asian population (Jayawardena et al., 2013, p.405).

No doubt, undernourishment continues to be a significant health challenge faced by developing and underdeveloped countries. At the same time, there is a steady rise in obesity/overweight prevalence in low-and middle-income countries alongside undernutrition (Awasthi et al., 2023, p.1) (Biswas et al., 2017, p.1). Globally, there is a steady fall in the prevalence of undernutrition among adults, but at the cost of increasing obesity and overweight prevalence. Between 1985 and 2017, the global mean BMI increased from 22.6 and 24.2 kg/m² to 24.7 and 24.4 kg/m² for adult men and women, respectively. In many low- and middle-income regions like South and South Asian countries, the BMI is increasing at a much faster rate and has caused an increased overweight burden in these regions (Bhandari et al., 2021). Our study also confirms the increasing trend in mean BMI and the prevalence of overweight in South Asian countries, with the Maldives having the highest obesity/ overweight prevalence. Though obesity/overweight is increasing in South Asia, the true prevalence of obesity and overweight is underreported and will rise to a higher figure with the introduction of the Asian BMI cutoffs because obesity in South Asia is distinct compared to other parts of the world. South Asians have lower lean mass, shorter height, and therefore lower BMI. But at the same time, they have higher truncal, abdominal, and visceral obesity and hence are prone to higher obesity-related complications even at a lower BMI (Awasthi et al., 2023) (Tham et al., 2022). Thus, the existing BMI threshold, as defined by the WHO as pointed out by many studies, is inappropriate to reflect upon the actual obesity prevalence rates and its associated risks; a BMI of 21 kg/m² would be the appropriate anthropometric cutoff level to identify overweight (Jayawardena et al., 2013).

The increasing prevalence of obesity/ overweight coexisting with the issue of undernutrition created the double burden of malnutrition in many nations, particularly the low and middle-income countries. Though the absolute rise in the prevalence rate of obesity and prevalence is small in South Asian countries, the relative increase is high compared to many developed nations like the U.S. The LMIC, which was already suffering from the issue of undernutrition, is now witnessing the problem of the double burden of malnutrition, mainly due to the rapid rise in obesity and overweight. Our study also confirms the existence of the double burden of malnutrition in South Asian countries, as the prevalence rate of underweight and overweight is considerably and equally high in these nations, particularly in India, Bangladesh, and Nepal.

Socio-economic and cultural factors do have a role in determining the health-related attitudes of the people and, thereby, the health condition of that population. Many studies focussing on the socio-economic and other determinants of the prevalence of obesity and overweight have found that in South Asian nations, obesity and overweight are prevalent highly among the urban areas compared to the rural spaces and higher among females. It is more common among the more affluent section of society, unlike that of the developed economies, where obesity and overweight are highly prevalent among people experiencing poverty. Wrong cultural notions also contribute to the increasing burden of overweight and obesity. For example, in most South Asian countries, people consider obesity a sign of good health and wealth and are least aware of the ill health associated with it (Misra et al., 2019). Altogether, with the countries in this region experiencing rapid nutritional, demographic, and socio-economic transition, this burden is set to rise further in the future and is expected to have a significant impact on social and economic development (Bhandari et al., 2021).

Conclusion

South Asia is experiencing the Double Burden of malnutrition. The rapid change in obesity prevalence, along with the existing issue of undernutrition, is the cause for this double burden. Though there is a decrease in the underweight in the region, it is still a significant problem with inequality between and within groups (Biswas et al., 2020). Attention should be paid to rising nutritional issues among adults as it negatively influences human capacity, productivity, and, thereby, economic development both at the individual level and macro level. Any public health intervention that focuses on just one issue (underweight) at the cost of another (Obesity/overweight) could be damaging. Thus, nutritional interventions and policies that aim to reduce underweight should be prioritised without ignoring the risk associated with the rising obesity burden among the population. Therefore, a comprehensive approach to deal with nutritional issues is the need of the time.

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Appendix

Kruskal Wallis test for the prevalence of obesity

```
> afghanistan <- c(5.50)
> Bangladesh <- c(3.60)
> Bhutan <- c(6.40)
> India <- c(3.90)
> Maldives <- c(8.60)
> nepal <- c(4.10)
> Pakistan <- c(8.60)
> Srilanka <- c(5.20)
> data_list <- list(Afghanistan, Bangladesh, Bhutan, India, Maldives, nepal, Pakistan, Srilanka)
Error: object 'Afghanistan' not found
> kruskal.test(data_list)
Error: object 'data_list' not found
> data_list <- list(afghanistan, Bangladesh, Bhutan, India, Maldives, nepal, Pakistan, Srilanka)
> kruskal.test(data_list)

      Kruskal-Wallis rank sum test

data: data_list
Kruskal-Wallis chi-squared = 7, df = 7, p-value = 0.4289
```

Kruskal Wallis test for the prevalence of overweight

```
□>
> Afg <- c(23.00)
> Ban <- c(20.00)
> Bhuta <- c(27.10)
> India <- c(19.70)
> Mald <- c(30.60)
> Nep <- c(21.00)
> pak <- c(28.40)
> Sri <- c(23.30)
> data_list <- list(Afg, Ban, Bhuta, India, Mald, Nep, pak, Sri)
> kruskal.test(data_list)

      Kruskal-Wallis rank sum test

data: data_list
Kruskal-Wallis chi-squared = 7, df = 7, p-value = 0.4289

>
> |
```

Kruskal wallis test for the prevalence of underweight

```
> Afghan <- c(16.4)
> Bangladesh <- c(21.50)
> Bhutan <- c(10.9)
> India <- c(23.60)
> Maldives <- c(9.20)
> Nepal <- c(16.80)
> Pakistan <- c(15.0)
> Srilanka <- c(14.0)
> data_list <- list(Afghan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Srilanka)
> kruskal.test(data_list)
Error: unexpected ')' in "kruskal.test(data_list)"
>
> kruskal.test(data_list)

      Kruskal-Wallis rank sum test

data:  data_list
Kruskal-Wallis chi-squared = 7, df = 7, p-value = 0.4289

> |
```