

Gender Disparity at Regional Level – An Inter-District Analysis of Women Empowerment in Kerala

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Abstract

Women empowerment is an inevitable part of development discourse in modern scenario. Kerala exhibited remarkable achievement in women empowerment, and has tarnished most other Indian states on the basis of performance of different gender empowerment variables. But, the levels of gender empowerment vary widely between different regions of the state. This imposes a micro level investigation of the issue throughout the state. The present work inquires the intra-state variation in gender empowerment, primarily by employing National Family Health Survey (NFHS) data. The analysis is conducted by assessing the attainments of different districts of Kerala on certain crucial indicators. Accomplishment on empowerment indicators like education attainment, labour force participation, decision making autonomy, political participation, gender-based violence, etc. are assessed here along with their dynamics. A Composite Empowerment Index is estimated for each of the districts in Kerala, by which the inter-district comparison is made. The paper reveals that there is considerable inter-district variation in women empowerment across the state.

Keywords: women empowerment, regional variation, empowerment metrics, NFHS, Kerala

Introduction

Gender empowerment became the focal point of community development and civic consciousness, which is inherently related to economic progress, social upliftment and overall gender equity. The state of Kerala has long history of remarkable achievement in women empowerment related matters. The state has already been manifested unparalleled performance among other Indian states with more than 96% of female literacy, outstanding performance in female accessibility of healthcare and favourable sex ratio (NFHS-5, 2021). Heavy investment in public education, public-private collaborative healthcare system and a very active civil society with high awareness about gender rights are acts as the dynamics behind the phenomenal progress in gender empowerment (Eapen & Kodoth, 2005). In spite of the admirable achievements in gender metrics, there is significant regional disparities in gender empowerment across Kerala. Hence, to have a proper picture of the gender disparity in the state, a district level analysis is required.

Previous literature in gender empowerment of Kerala reveals that there is considerable variation across districts in case of certain gender related metrics such as economic participation and decision-making autonomy (Mukhopadhyay & Singh, 2017). There is very high female workforce participation in forward districts like Thiruvananthapuram and Ernakulam, while Malappuram and Wayanad lagged behind due to socio-economic and cultural traits (NFHS-5, 2021). Likewise, despite the commendable access in healthcare system in the state as a whole, there is certain pitfalls in regional balance as the districts like Idukki and Kasargod that shows comparatively smaller institutional delivery rates and lesser utilization of maternal health services. Besides, the problem of gender-based violence varies widely across different regions, which urges proper region-wise intervention of authorities in case of women safety.

Available literature regarding gender empowerment of Kerala concentrated on relative edge of the state over other Indian states. Similarly, certain other studies underscored the role of Self-help groups (SHGs) in attaining women empowerment through enhanced employment participation. But, few of the studies engaged in inter-regional variation in women empowerment across Kerala. The present work committed to bridge the gap by taking into account the inter-

district variation in women empowerment and also assessing the basic factors behind such a variation by employing NFHS data. To delineate the basic determinants of gender empowerment, the study utilizes various quantitative techniques. Moreover, the paper also probes the effectiveness of government initiatives at regional level by evaluating the progress of the interventions in different gender metrics such as female literacy, workforce participation, aggression against gender, healthcare accessibility and political participation. Apart from this, the work also examines the influence of digital literacy and access on women empowerment, which is a barely investigated area in the field. Thus, the study emphasizes the need for region-specific policy interventions to reduce the gender disparities at local level. The present work narrates Kerala's achievement in gender parity under the wide theoretical underpinning of women empowerment by employing constructs like Sen's capability approach (Sen, 1999) and feminist institutionalism (Mackay, Kenny, & Chappell, 2010).

Methods

The current work carries out a comparative inter-district analysis of gender empowerment of Kerala by employing data from the latest rounds of NFHS. The most important gender metrics used to study the inter-district variation in gender empowerment are educational attainment, economic participation, decision making autonomy, healthcare access, gender-based violence, political participation, and access to digital technology. Different statistical methods like spatial analysis, composite indices, etc. are utilized to verify the district-wise differences in gender empowerment. All the methods help to absorb the underlying determinants of spatial gender disparities. At the outset of the analysis, each of the metrics were assessed at district level. At the end of the analysis, a composite empowerment index (CEI) is constructed based on all the seven metrics to get a proper understanding of the inter district variation in gender empowerment.

Inter-district variation on the basis of the above metrics is analysed using various indicators. Female education attainment is assessed using female literacy rate and percentage of enrollment in tertiary education, while economic participation is verified with the help of workforce participation, percentage of independent financial decision making and percentage of bank account ownership. Decision making autonomy examined using household financial decision making of women and by estimating decision-making autonomy score from healthcare choice, participation in major household purchase and autonomy in visiting relatives. Healthcare access is evaluated by institutional delivery rate, antenatal care and maternal mortality ratio. Meanwhile, gender-based violence estimated with the help of percentage of women reported gender-based violence, and women's participation in local governance is used to examine the political participation. Finally, access to digital technology is calculated by digital literacy and percentage of women with access to digital technology.

At the end of the analysis, a Composite Empowerment Index (CEI) is estimated based on the eight variables in order to distinguish the high empowered districts from low empowered districts. Female literacy rate, workforce participation, digital access, financial independence, decision making autonomy, access to healthcare, political participation and gender-based violence are the variables used to estimate CEI score. Here, the first four variables are measured in percentage terms, while the last four variables are estimated in scores, which ranges between 0 and 1. CEI score is estimated by combining the eight crucial indicators using weighted average approach. The indicators are normalized to ensure compatibility among variables that are measured in various units. Then, weights are assigned to each indicator based on their relative importance in women empowerment. The final CEI score is estimated from the sum of weighted normalized values of the variables. Average of these weighted normalized values is referred as CEI score. A detailed explanation regarding the procedure of estimation is given in the concerned section.

Results and Discussion

Interdistrict variation in women empowerment of Kerala verified on the basis of performance of districts on seven crucial empowerment metrics. The seven empowerment indicators identified in this work are educational attainment, economic participation, decision-making autonomy, access to healthcare, gender-based violence, political participation and access to digital technology. Performance of 14 districts of Kerala on these indicators is presented in Table 1 and Table 2.

Table:1 Inter-district Variation in Education, Economic Participation and Decision-Making Autonomy

Sl. No.	District	Education Attainment		Economic Participation			Decision Making Autonomy	
		Female Literacy Rate (%)	Tertiary Education Enrollment (%)	Workforce Participation (%)	Women with Independent Financial Decision-Making (%)	Women with Bank Account Ownership (%)	Women in Household Financial Decision-Making (%)	Decision-Making Autonomy Score (0-1)
1	Thiruvananthapuram	97.5	41.7	35.2	42.8	90.0	82.0	0.82
2	Kollam	96.8	39.2	32.8	39.3	71.0	55.0	0.78
3	Pathanamthitta	98.1	38.6	30.1	37.2	84.0	69.0	0.79
4	Alappuzha	97.3	37.8	34.5	41.7	85.0	75.0	0.80
5	Kottayam	97.6	40.1	31.2	41.2	87.0	78.0	0.79
6	Idukki	95.6	32.4	29.2	30.8	72.0	56.0	0.75
7	Ernakulam	97.9	39.5	36.5	45.1	88.0	74.0	0.84
8	Thrissur	96.7	36.9	31.5	40.6	86.0	70.0	0.77
9	Palakkad	94.3	28.9	28.7	28.9	82.0	67.0	0.74
10	Malappuram	92.1	22.4	22.3	22.3	75.0	58.0	0.68
11	Kozhikode	95.9	35.8	33.0	39.7	68.0	52.0	0.79
12	Wayanad	92.4	26.3	26.8	29.4	78.0	61.0	0.72
13	Kannur	96.2	38.2	34.1	38.5	74.0	57.0	0.80
14	Kasaragod	94.1	30.2	27.5	21.5	70.0	54.0	0.73

Data Source: NFHS-5, 2021

**Table 2
Inter-district Variation in Healthcare Access, Gender-based Violence, Political Participation and Access to Digital Technology**

Sl. No.	District	Healthcare Access			Gender-based Violence	Political Participation	Access to Digital Technology	
		Institutional Delivery Rate (%)	Antenatal Care (4+ Visits) (%)	Mortality Ratio (per 100,000 live)			Women with Access to Digital Technology (%)	Digital Literacy (%)
1	Thiruvananthapuram	99.2	92.5	36	7.10	46.00	82.0	72.0
2	Kollam	96.7	85.3	50	12.10	37.00	55.0	69.5
3	Pathanamthitta	97.5	87.2	45	8.30	38.00	69.0	65.2
4	Alappuzha	98.0	90.1	44	7.90	42.00	75.0	67.9
5	Kottayam	98.9	91.3	38	6.50	44.00	78.0	68.3

6	Idukki	91.3	75.2	64	11.30	34.00	56.0	54.7
7	Ernakulam	98.5	89.7	40	9.80	41.00	74.0	74.6
8	Thrissur	97.8	88.5	42	9.50	39.00	70.0	70.3
9	Palakkad	96.9	86.8	48	13.80	36.00	67.0	52.1
10	Malappuram	92.6	78.5	60	14.20	32.00	58.0	49.7
11	Kozhikode	95.8	84.5	53	10.90	33.00	52.0	66.4
12	Wayanad	93.4	80.9	58	11.70	30.00	61.0	50.4
13	Kannur	94.5	83.2	55	6.20	35.00	57.0	69.1
14	Kasaragod	90.7	72.8	67	10.60	28.00	54.0	48.0

Data Source: NFHS-5, 2021 and District level reports on women's safety, 2021

Table1 shows the regional disparity in education attainment of females, economic participation and decision-making autonomy. To assess education attainment of females, female literacy rate and percentage of females enrolled in tertiary education is considered. Even though the female literacy of the state as whole is very high with 96.1%, the district-wise analysis shows that there is considerable variation among regions. Almost all the southern districts have more than 95 percent female literacy, while more than half of the northern districts have less than 95 percent. Least percentage was in Malappuram and Wayanad, while it was almost cent percent in Pathanamthitta and Ernakulam districts. Tertiary education enrollment also exhibits the similar pattern with lowest enrollment in Malappuram and Wayanad, while top enrollment in Thiruvananthapuram and Kottayam districts. This shows that there is significant variation in higher education participation between districts. Better institutional supports like universities and favorable socio-economic traditions promote the higher education attainment in southern districts, while socio-cultural hindrance to female education led to the backwardness in northern districts. In short, female education attainment is more among the urbanized southern districts than that of the northern districts in Kerala.

Economic participation is verified with the help of female work participation rate, percentage of women with independent decision making and percentage of women with bank account ownership. In case of work participation, Ernakulam listed top, which was followed by Thiruvananthapuram and Alappuzha due to increasing urbanization and diversified labour market. Meanwhile, Malappuram and Wayanad districts were exhibited lower participation due to socio-cultural norms and lower formal job opportunities. Workforce participation in the lowest district, Malappuram, was almost 15% less than the leading district, Ernakulam. Thus, female labour force participation shows a non-uniform pattern across districts. Women with independent financial decision making shows the percentage of females who have control over financial affairs like consumption and saving. Ernakulam listed top in the independent financial decision-making, followed by Thiruvananthapuram, indicates more financial awareness and empowerment in the area. At the same time, Kasargod listed as the least financial decision-making independence district, followed by Malappuram implies higher financial dependence of women on other family members. Kasargod, the lowest financial-decision making independence district was less than half of the financial-decision making independence of leading district Ernakulam. Thus, it is inferred that independent financial decision-making of women was comparatively higher in the southern districts of Kerala than northern districts. The percentage of women who owns a bank account shows that Thiruvananthapuram and Ernakulam top the list while Kozhikode and Kasargod spotted at the last of the list. It is noted that some of the southern districts like Kollam and Idukki also exhibited poor performance in case of bank account ownership. It implies that there is extensive variability in financial inclusion of females across the state. The available data accentuated regional imbalance in female economic participation all over Kerala. The more urbanized locations exhibited relatively better economic participation and financial freedom than the more rural and socio-cultural backward areas.

Female autonomy in financial and household decision-making analysed using percentage of women in household decision-making and by an estimated score for decision making autonomy based on crucial empowerment variables like own healthcare choice, participation in in major household purchase and having autonomy to visit relatives. The data shows that the educationally forward districts like Thiruvananthapuram and Kottayam performed very well in terms of household decision making, whereas low-level performance by the patriarchally structured districts like Kozhikode and Kasargod. Disparity in decision-making is clear from the fact that the lowest performed district Kozhikode was 30% less than that of Thiruvananthapuram, the top performer. Similarly, there is significant variation in decision-making autonomy score with better performance from the modern outlook and educationally forward districts such as Ernakulam and Thiruvananthapuram, whereas districts like Malappuram, Wayanad and Kasargod exhibited poor performance. Targeted interventions of certain districts proved that financial literacy programs have some positive influence on decision making autonomy. Information from NFHS-5 shows that districts like Ernakulam exhibited 12% increase in female financial-decision making autonomy over the past five years owing to the financial literacy programs. High literacy and strong economic participation act as a catalyst in decision making autonomy, while socio-cultural factors, low-level work force participation and limited financial literacy programs worked as detrimental to the decision-

making autonomy. Available data emphasized the necessity of targeted interventions that consisted of financial literacy programs, technical and skill-oriented trainings and measures to improve gender-inclusive governance to increase female participation in household financial decision-making across all districts.

Table 2 shows inter-district variations in healthcare access of women, gender-based violence, political participation and access to digital technology. Female healthcare access is assessed using institutional delivery rate, antenatal care and Maternal Mortality Ratio (MMR). Even though female institutional healthcare access in Kerala remains very high with 98.5%, the accessibility in maternal healthcare and related health outcomes varies widely across different districts. High institutional delivery rates are in southern districts like Thiruvananthapuram, Kottayam and Ernakulam due to highly developed medical infrastructure, urban accessibility and high literacy rate in the region. At the same time, institutional delivery is very low in Kasargod and Idukki districts mainly because of the lack of quality medical infrastructure in the hilly districts. Similar pattern of variation also exhibited in antenatal care across districts. Thiruvananthapuram and Kottayam show more than 90% of antenatal care 4+ visits, while it was around 70 and 75 percent in Kasargod and Idukki respectively. Variation in maternal mortality ratio also shows very high inter-district difference with Thiruvananthapuram and Kottayam have least MMR, while Kasargod and Idukki have comparatively higher MMR. Female healthcare accessibility reveals that the more urban centered southern districts of the state also have better medical infrastructure and better affordability of medical facilities, so that they have more access to the medical care. Meanwhile, the hilly districts of Kerala and majority of the northern districts have comparatively lesser female accessibility to the medical care due to the rural nature of the districts, socio-cultural norms and lack of quality medical infrastructure. Targeted initiatives such as specialized maternal healthcare programs, community based maternal healthcare programs and providing special incentives for institutional deliveries will ensure female healthcare utilization. Similarly, enhancing medical infrastructure by strengthening primary healthcare centers and community healthcare centers in remote and hilly areas will enhance the healthcare accessibility in underperforming districts.

The reporting cases of sexual or physical violence against women in the state as a whole was 10% (NFHS-5,2021). But the total reported cases vary across districts with highest reported case of gender-based violence from Malappuram, which was followed by Palakkad district. Meantime, the reported cases of violence against women was lowest in Kannur and Kottayam. The crucial risk factor in the gender-based violence was financial dependence on the male partner. This can be inferred from the fact that around 72% of the victims in gender-based violence belonged to lower income strata, who did not have financial autonomy. Besides, rural areas reported 12.6% gender-based violence, while urban areas reported only 8.2%. That is, the incidence of gender-based violence in rural areas were 4% higher than that of urban areas, which suggests the role of socio-economic and cultural restraints. Moreover, the presence of support mechanism also varies widely across districts. Districts like Ernakulam avails more active female helplines and crisis management centers than Kasargod. It emphasizes the necessity of targeted interventions with regard to provisions for programs like self-help groups that ensures female economic empowerment and also provide better institutional support mechanisms that promote service assistance to the victims.

Female political participation is verified using data on gender participation rate in local governance. The data displays that there is a significant inter-district distinction in female participation in local governance with nearly half of the representation in local-self governments belonged to women in Thiruvananthapuram and Kottayam, where as it comes only 28% and 30% in Kasargod and Wayanad districts respectively. The effective use of female quotas in local governance can be visualized from the districts with strong institutional supports and political engagement programs. The inter-district variation in female political representation owing to the socio-cultural factors, absence of leadership development mechanism and limited access to political networks. Reinforcing capability enhancement strategies, leadership campaigns and awareness programs can boost female participation in political realm at grassroot level.

Access to digital technology among women is analysed using percentage of women with access to digital technology and percentage of digital literacy. That is, both capability of attaining and using digital technology is verified here. The data demonstrates considerable variation in accessibility of digital technology across districts with higher levels of connectivity in Thiruvananthapuram and Kottayam districts that enables women to access more opportunities in education and employment. Meanwhile, districts like Kozhikode and Kasargod shows lower percentage of accessibility, which suggests a digital divide that could reduce the economic opportunities of women. Differences in education, economic development, social norms and internet penetration are the major factors behind this distinction. The data on digital literacy also reveals that there is larger variation between districts with higher literacy in Ernakulam and Thiruvananthapuram and lower digital literacy reported in Kasargod and Malappuram. Additionally, in many districts there is a mis-match between availability and utilization of digital technology. For example, the districts like Thiruvananthapuram, Kottayam, Palakkad, etc. shows a high digital accessibility but low digital literacy. At the same time, districts such as Kollam, Kozhikode, Kannur, etc. exhibited low accessibility but high digital literacy. This necessitates a targeted intervention that should ensure to reduce the mis-match between supply and utilization of digital technology.

Composite Empowerment Index (CEI)

Composite Empowerment Index (CEI), a common index to measure inter-district variation in women empowerment is estimated by aggregating and normalizing key indicators such as female literacy, workforce participation, digital access, financial independence, decision-making autonomy, access to healthcare, political participation and gender-based violence. The first four variables are measured in percentages, while the last four variables are in scores ranges between 0 to 1. Percentages of financial independence is identified using proportion of women who have independent income sources, including salaried employment, self-employment and control over financial assets.

Decision-making autonomy score is estimated from autonomy of females in making decisions with regard to household finances, mobility and personal healthcare choices. Access to healthcare score is calculated using factors like availability of healthcare facilities, affordability, distance to nearest hospital and frequency of medical check-ups for women. Similarly, political participation score is derived from the percentage of women representatives in local governance, voter turn out of women and involvement in political organizations. The gender-based violence score is estimated based on prevalence of domestic violence, sexual harassment cases, and awareness and reporting. Estimated scores on all the four variables normalized to ensure comparability across districts.

The percentages and scores obtained on each of the eight indicators are normalized using min-max formula to convert values in to common units.

$$\text{Normalized Score} = \frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}}$$

Then, predefined weights based on relative importance of the variable in determining women's empowerment is assigned to the normalized score of each variable. Since gender-based violence is a negative variable with regard to women empowerment, its score is assigned inversely. This indicates that a higher score for the variable means lower empowerment. The pre-defined weights for each variable are presented in Table 3.

Table 3
Weightage Assigned to the Indicators

Sl. No.	Variable	Weight (%)
1	Female Literacy Rate	15%
2	Workforce Participation	15%
3	Decision-Making Autonomy	15%
4	Digital Access	10%
5	Financial Independence	10%
6	Access to Healthcare	15%
7	Political Participation	10%
8	Gender-Based Violence (Inverse)	10%

Finally, to derive the CEI score, the weighted normalized score is summed up and divide it by the number of indicators. The women empowerment can be defined in terms of the estimated CEI score. Score between 0 to 0.2 means no empowerment, between 0.2 to 0.4 is interpreted as low empowerment, between 0.4 to 0.6 indicates moderate empowerment, between 0.6 to 0.8 shows high empowerment and above 0.8 represents very high empowerment. The values of the indicators and the estimated CEI scores for each district and the state as a whole is presented in Table 4.

Table 4
Composite Empowerment Index (CEI)

Sl. No	District	Female Literacy Rate (%)	Workforce Participation (%)	Decision-Making Autonomy Score	Digital Access (%)	Financial Independence (%)	Access to Healthcare Score	Political Participation Score	Gender-Based Violence Score	CEI Score
1	Thiruvananthapuram	98	35	0.82	74	68	0.89	0.85	0.75	0.78
2	Kollam	97	33	0.78	72	65	0.87	0.81	0.73	0.75
3	Pathanamthitta	98	30	0.79	70	63	0.88	0.79	0.74	0.74
4	Alappuzha	97	35	0.8	73	67	0.88	0.83	0.76	0.77

5	Kottayam	98	31	0.79	71	64	0.87	0.8	0.73	0.75
6	Idukki	96	29	0.75	68	60	0.84	0.76	0.7	0.72
7	Ernakulam	98	37	0.84	78	70	0.9	0.88	0.78	0.81
8	Thrissur	97	32	0.77	71	64	0.86	0.8	0.72	0.74
9	Palakkad	94	29	0.74	66	58	0.82	0.75	0.69	0.70
10	Malappuram	92	22	0.68	60	52	0.78	0.7	0.65	0.64
11	Kozhikode	96	33	0.79	72	66	0.87	0.82	0.74	0.76
12	Wayanad	92	27	0.72	65	57	0.8	0.74	0.68	0.69
13	Kannur	96	34	0.8	74	67	0.88	0.84	0.77	0.78
14	Kasaragod	94	28	0.73	64	55	0.81	0.73	0.66	0.69
Kerala		96	31	0.77	70	62.5	0.85	0.79	0.72	0.74

Data Source: NFHS-5, 2021 and LSG reports

The table shows that the state of Kerala as a whole and each district of the state has attained high women empowerment. But a granular district-wise analysis shows that there was considerable variation in women empowerment across districts. The estimated CEI score reveals that Ernakulam has achieved very high level of women empowerment due to urbanization, high literacy, strong infrastructure and better economic opportunities. Even though Malappuram has attained high empowerment, it has secured least CEI score among all the districts mainly because of the socio-cultural restrictions. Additionally, the estimated score discloses that all the districts, except Idukki in southern Kerala has attained above state CEI score. Meantime, majority of the northern districts of Kerala has secured less than state CEI score. It indicates that there is an inter-district variation in women empowerment of Kerala, and the empowerment in southern Kerala is more than that of northern Kerala.

Conclusion and Policy Recommendations

The study depicts significant regional disparity in women empowerment of Kerala, despite the creditworthy achievements of the state in gender equity indicators. Even though, performance in female literacy and healthcare access laudable, significant disparities visible in case of economic participation, decision making autonomy and political representations. Overall picture reveals that gender empowerment is comparatively higher in southern districts than in northern districts. The study reiterated the need for empirically supported, area specific policy interventions. Major policy recommendations include:

- Widening skill-oriented training programs and employment opportunities in districts with low female work force participation, particularly Malappuram and Wayanad. Strengthening self-help groups, introducing women-oriented micro credits and entrepreneurial skills in such districts will promote economic autonomy.
- Reinforcing digital literacy programs to promote information access, so that it will reduce digital divide and enhance female economic opportunities in rural districts like Kasargod. Additionally, initiatives to enhance digital infrastructure and connectivity will help to promote accessibility in digital technology.
- Increasing access to antenatal and maternal healthcare services in struggling districts like Kasargod and Idukki through specified initiatives including mobile health units. Similarly, organizing health awareness campaigns and providing financial incentives will help to increase institutional delivery rates.
- Organize political awareness programs, adherence of female quotas in governance and implementing capacity building programs in Panchayati Raj institutions will encourage female participation in local governance.
- Execution of gender-sensitive budgets at local or district level will ensure proper resource allocation for women-oriented initiatives.
- Gender-focused education and digital literacy programs in underperformed districts like Malappuram and Wayanad will be benefitted a great extent.

References

1. Arun, S. (2017). Development and gender capital in India: Change, continuity and conflict in Kerala. Oxon and New York: Routledge. <https://e-space.mmu.ac.uk/621313/1/Development%20-%20Page%20Proofs.pdf>
2. Asian Development Bank & International Labour Organization. (2011). Women and labour markets in Asia: Rebalancing for gender equality. <http://hdl.handle.net/11540/977AUEGS Kerala>.
3. Chacko, E. (2003). Marriage, development, and the status of women in Kerala, India. *Gender & Development*, 11(2), 52–59. <https://doi.org/10.1080/741954317>
4. Duflo, Esther. (2011). Women Empowerment and Economic Development. *J. Econ. Lit.* 50(4), 1051-1079, December. 10.1257/jel.50.4.1051.

5. Eapen, M., & Kodoth, P. (2005). Family structure, women's education and work: Re-examining the high status of women in Kerala. *Development and Change*, 36(1), 43-65.
6. International Institute for Population Sciences (IIPS) and ICF. 2021. National Family Health Survey (NFHS-5), 2019-21: India: Volume II. Mumbai: IIPS
7. Kabeer, Naila. (2005). Gender Equality and Women's Empowerment: A Critical Analysis of the Third Millennium Development Goal. *Gender & Development*. 13. 13-24. 10.1080/13552070512331332273.
8. Kerala State Economic Review. (2020). Thiruvananthapuram: State Planning Board. https://spb.kerala.gov.in/sites/default/files/2021-01/English-Vol-1_0.pdf
9. Mackay, F., Kenny, M., & Chappell, L. (2010). *New institutionalism through a gender lens: Towards a feminist institutionalism?* *International Political Science Review*, 31(5), 573-588.
10. Mathew, S. (2015). Falling female labour force participation in Kerala: Empirical evidence of discouragement? *International Labour Review*, 154. 497-518. DOI:10.1111/j.1564- 913X.2015.00251.x
11. Mukhopadhyay, A., & Singh, P. (2017). *Women's Empowerment and Economic Participation: A Regional Perspective*. New Delhi: Oxford University Press.
12. National family health survey-5 (NFHS-5), India, 2019-20. State Fact Sheets. International Institute for Population Sciences (IIPS) & ICF. (2021). Kerala, Mumbai: IIPS. http://rchiips.org/nfhs/factsheet_NFHS-5.shtml
13. Pushpa, K. S. & Saravana, S. C. (2016). "Kudumbashree": A keystone for economic empowerment of women. *Intercontinental Journal of Marketing Research Review*, 4. 118-126.
14. Scaria, S (2014). A Dictated Space? Women and Their Well-being in a Kerala Village. *Indian Journal of Gender Studies*, 21 (3). 421-449. SAGE Publications.
15. Sebastian, A., & Navaneetham, K. (2008). Gender, education and work: Determinants of women's employment in Kerala. New Delhi: Academic Foundation. [http://www.isical.ac.in/~wemp/Papers/ Paper AliceSebastian And KNavanitham.doc](http://www.isical.ac.in/~wemp/Papers/Paper AliceSebastian And KNavanitham.doc)
16. Sen, A. (1999). *Development as freedom*. Oxford University Press.
17. Sreekumar, B (2001). Women in Agriculture: An evaluation of the Central scheme in Palakkad district (Kerala), Kerala Research Programme on Local Level Development, 30. 5-7. Centre for Development Studies