

Socio -economic Evaluation of Women Homestead Farmers in Context of Agricultural Indebtedness in Kerala- A Case of Wayanad District

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ABSTRACT

The concept of integrated homestead farming is notable when the agriculturists faces and caught in a vicious circle of heavy debt trap and fighting for their livelihoods. Many studies show that yields from the agricultural land are lower due to different reasons and the alternative solution is to enter a pluriactivity or other off-farm production. Here the study trying to identify the socio economic profile of women to take survival strategies to overcome the situation is not mentioned anywhere. Sufficient literature is available at macro level. In Kerala economic scenario, there are different alternatives adopted by women farm households as a survival strategy as vertical cultivation, terrace cultivation and homestead farming. All these strategies are characterized by larger income with small area. Farmers often face serious challenges and constraints such as poor harvest, seasonal attack of disease, lack of skills and training, lack of access to common resources etc, the income of farmer have been falling (Ruth Gasson 1969), which may require policy interventions beyond those aimed at promoting economic growth and the efficiency of agricultural sector. At this juncture, integrated homesteads farming is well established land use system which is successful in Kerala.

INTRODUCTION

Women make essential contributions to agriculture and rural economic activities in all economies. Their roles vary considerably among and within regions and are changing rapidly in many parts of the world. A number of countries have seen substantial increases in the female share of the agricultural labour force in recent decades due to a number of reasons, including conflict, disease, debt, migration etc. Based on the latest internationally comparable data, women comprise an average of 43 percent of the agricultural labour force of developing countries (Social Institution and Gender Inequality, SIGI (OECD, 2010). In India, the share of women in the agricultural labour force has remained steady at just over 30 percent. Though the share of agriculture in GDP increased to 19.9 per cent in 2020-21 from 17.8 per cent in 2019-20, it was 20 per cent in 2003-04 (Economic Survey 2020), agriculture still as the engine of economic growth, and that agriculture is the only activity capable of generating a surplus large enough to stimulate growth in other sectors of the economy (Muller, 1978). In Kerala, most of the agriculture operations are in debt mainly due to large area under cultivation together with low productivity. It may lead rural farm households often face distress situations as uncertainties, challenges and shrinking behaviour of farm income. But still the capacity to employ in this sector is very largest in the economy. So we have to focus on small farming and should be increase intensive agricultural operations. It is more visible in the frame of women’s integrated homestead farming, where it can be done in small area especially the surroundings of farmer’s houses.

Crops including trees are grown in combination with livestock in this system. A mix of agricultural enterprises like dairy, poultry, goatary, fishery etc. suited to the given agro-climatic conditions not only supplement the income of the farmers but also helps to increasing the family labour and also they yield high level of income. According to Haggblade et al (1989), women dominate many of the non-farm activities that will grow most rapidly during structural transformation activities. Haddad (2000) articulated a pathways approach for assessing agriculture-

nutrition linkages. In their systematic review of agriculture-nutrition linkages in India, Kadiyala et al. (2014) combined this approach with the UNICEF framework for nutrition. Kadiyala et al., 2014, Yosef et al., 2015, Pandey et al., 2016, and Ruel et al. (2018) studied in different geographical zones—India, Bangladesh, South Asia, and the global south, respectively. They found that women as a unified and homogenous group in an agrarian economy. Nair (1993) observed that all home gardens consist of herbaceous layer near the ground, a tree in the upper layer, and intermediate layers with different crops. The skewed power relations between firms and farmers make the latter ‘vulnerable to indebtedness and loss of autonomy over land and livelihood decisions’ (Vicol 2017, 157). The complementarities and conflicts therein, shift in response to contextual changes in the larger political economy and agrarian environments (Jackson 1993; Leach and Green 1997; Nightingale 2006; Razavi 2009), with implications for women participation and wellbeing outcomes. Selecting a proper combination of on and off-farm activities (Krasovec 1983), introducing activities which are complementary to each other (Hetland 1986), and not having highly positively correlated activities (Schwab et al 1989) have been recognized as determining a farmer’s ability to accumulate wealth through off-farm activity (Rupena-Osolink 1983). Karim Hussein and John Nelson (1950) “Sustainable livelihood and livelihood diversification” say that how livelihood diversification as a separate strategy leads in to the process by which rural people construct sustainable livelihoods. More than 2.8 lakh women members in Kerala of low income families organized farming in fallow lands. The major crops grown are paddy, banana, tubers, vegetables and other crops (LEIS India 2020). In this context, it is necessary to investigate socio-economic conditions of women homestead farmers in Kerala.

RESEARCH METHODOLOGY

Study area

Wayanad lies between north latitude 11° 27' and 15° 58' and east longitude 75° 47' and 70° 27'. It is bounded on the east by Nilgiris and Mysore district of Tamil Nadu and Karnataka respectively, on the north by Coorg district of Karnataka, on the south by Malappuram district and on the west by Kozhikkod and Kannur district. Agriculture is the backbone of the economy of the district. Most of the lands in the district are used for agricultural purposes. More than half of its population is engaged in agriculture in order to earn their livelihood. The chief agricultural crops in the district are Coffee, tea, cocoa, pepper, plantain, vanilla, rice, coconut, cardamom, tea, ginger, etc. Another source of economy in the district is the cattle farming.

Sampling procedure, Sample Area and Data Analysis

The study is purely based on primary data. Multi stage sampling technique was used to evaluate the socio-economic conditions of women homestead farmers in Wayanad. Wayanad district purposively selected in the first stage. In the second stage, Taluk were selected based on active participation of women in homestead cultivation in the district. Three Panchayats such as Muttill, Pulpally and Ambalawayal were selected to meet the ultimate sample population. From these Panchayats, 100 women homestead farmers were surveyed. Major crops cultivated in the study area are Coffee, paddy, pepper, arecanut, ginger, vegetables, tapioca, coconut, banana etc. The data have been collected by using a pre-structured interview schedule. Socio-economic conditions of women homestead farmers were evaluated by using descriptive statistics.

RESULTS AND DISCUSSION

Age Distribution

The following figure (1.1) reveals that majority (40 percent) of the women homestead farmers are belonging to the age group of above 45. They are actively utilizing their productive time to cultivate homestead crops together with her family.

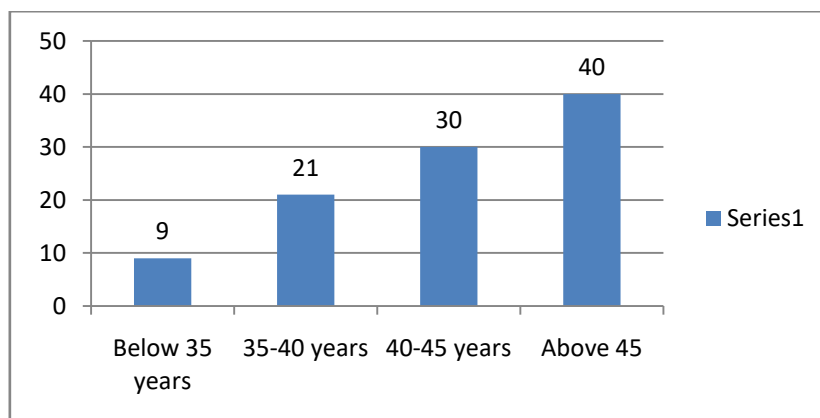


Figure (1.1): Distribution of Sample households by Age
 Source: Primary Survey

From the field study, it is observed that even though 38 percent (majority) of the respondents belonging to OBC category, general and ST population also have a major portion. Thus an equal proportion of people living in the study area across social category.

Table 1.1: Distribution of sample farmers by Social group

Social group	Percent
General	34
OBC	38
SC	5
ST	23
Total	100

Source: Primary Survey

Based on land holding the study classified sample respondents into three categories. [i.e., Small Farmers (≤ 200 cents), Medium or Marginal Farmers (>200 to ≤ 500 cents) and Large Farmers (> 500 cents) presented in figure 1.2].

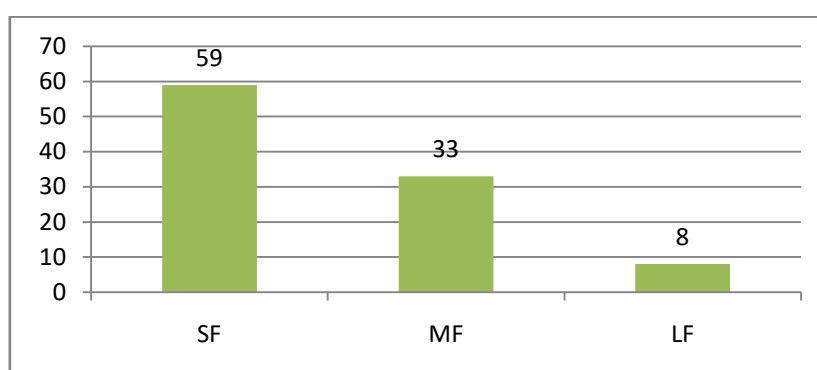


Figure (1.2): Broad category of farm households according to size of land holdings

Source: Primary Survey

Occupation

The survey noticed that majority of the farmers were engaged both farming and other activities. Only LF category engaged in agricultural activity alone. It is different among the other two categories of SF and MF. They are engaged in both farming and other jobs. A few of them are noticed as MNREGA workers. Other than that, some of them are government workers, retired employees, engaged in farming other than cultivation and other workers. Therefore it is understood the fact that many of the women members in a family are ready to do farm occupation along with other activities.

The level of farm technology, borrowing habits of the farmers, sources of borrowing, utilization pattern of debt, repaying capacity etc are primarily depends on education standards of the farmers.

Table 1.2: Education and Occupational status of sample women homestead farmers

Education	Agricultural category				Occupation	Agricultural category			
	LF	SF	MF	Total		LF	SF	MF	Total
Illiterate	0 (0)	14 (77.8)	4 (22.2)	18 (100)	Farming	6 (7.9)	45 (59.2)	25 (32.9)	76 (100)
Primary	1 (3.4)	18 (62.1)	10 (34.5)	29 (100)	Farming other than cultivation	0	3 (100)	0	3 (100)
Secondary	6 (15)	24 (58)	11 (27)	41 (100)	MNREGA worker	0	1 (100)	0	1 (100)
Higher secondary	0 (0)	1 (20)	4 (80)	5 (100)	Government employee	2 (18.2)	4 (36.4)	5 (45.5)	11 (100)
Degree/Diploma	1 (14)	2 (29)	4 (57)	7 (100)	Others	0	6 (66.7)	3 (33.3)	9 (100)
Total	8	59	33	100	Total	8	59	33	100

Source: Primary Survey, Note: values in brackets are percentages.

A very few of the LF were illiterate and the remaining sample farmers were literates across the agricultural category. Only 5 percent of the farmers had acquired higher education.

Family size

The average number of the family member in the sample households was five. Maximum number of members in a family is 14. Majority of the sample family had members between 3 to 5. Homestead activities especially farming activity are more meaningful in the context of family size. Majority of the farmers irrespective of the farmer category are indebted either in the form of institutional or non-institutional sources.

Table 1.3: Average numbers of family members in the sample households

Frequency of family members				Mean number of family member	Minimum of family member	Maximum of family member
1-3	3-5	5-7	>7			
32	50	15	3	4.26	2	8

Source: Primary Survey, Note: values in brackets are percentages.

Family consumption is one of the reason for that. Farmer households are compelled to take loans when their family faces distress. They have to feed their family members even by selling their valuable assets. In this situation only the head of the households have unable to meet all family requirements. Therefore the women members in the family can help them to cultivate necessary crops even vegetables for family consumption. It will be a saving for the family.

Farm asset

Durables are not considered as the physical asset; this study gives more focus on agricultural assets.

Table 1.4: Distribution of sample respondents by holding assets across agricultural category

Durables	LF	SF	MF	Total
Television	12	59	36	292
Fridge	12	50	38	260
AC	2	22	9	33
Computer	6	44	10	60
Vehicles	7	124	41	172
Others	12	207	63	282
Agricultural implements				
Pumpest	1	24	12	37
Sprayer	2	13	11	26
Tractor	0	4	3	7
Others	2	11	2	15

Source: Primary Survey

The discussion on asset holdings is relevant in the context of agrarian distress. Majority of the farmers have many of the consumer durables. At the same time, a different trend can be seen in case of agricultural implements. Only 37 farmers (12.33 percent) have pump set; among this, 24 are from SF.

CROPPING PATTERN

Changes in cropping pattern reflect changes in the relative profit expectations of the alternative crops at different points of time. Ten crops were cultivated across the study area.

The nature of crops grown provides a correct index of the character of the agricultural economy and economic standard of the farmers who are striving to eke out their living. It is therefore necessary to examine the variation in cropping pattern among the agricultural category. The characteristic features of cropping pattern followed by the sample farmers are given in table (1.6). Since paddy is not a homestead crop, it is cultivated by the farmers as mixed crop in the study area. Therefore in all the analysis paddy is also included.

Table 1.6: Homestead Crops cultivated by the sample households

Crops	Agricultural category			Total
	LF	SF	MF	
Paddy	2 (3.4)	37 (63.8)	19 (32.8)	58 (100)

Coconut	7 (14.3)	28 (57.1)	14 (28.6)	49 (100)
Areca nut	8 (16.7)	23 (47.9)	17 (35.4)	48 (100)
Banana	5 (15.6)	16 (50)	11 (34.4)	32 (100)
Pepper	4 (16.7)	5 (20.8)	15 (62.5)	24 (100)
Rubber	4 (33.3)	5 (41.7)	3 (25)	12 (100)
Vegetables	5 (20)	12 (48)	8 (32)	25 (100)
Ginger	1 (6.7)	9 (60)	5 (33.3)	15 (100)
Coffee	8 (13.1)	27 (44.3)	26 (42.6)	61 (100)
Tapioca	1 (7.7)	11 (84.6)	1 (7.7)	13 (100)
Others	0	10 (66.7)	5 (33.3)	15 (100)

Source: Primary Survey, Note: values in brackets are percentages

The major crop cultivated in Wayanad is coffee (61 percent). Paddy is another major crop. Coffee, rubber, coconut, Areca nut and banana are the important mixed crops. 48 percent of the farmers were cultivating Areca nut. Within the crop, 47.9 percent cultivate by the SF, 35.4 percent cultivated by MF and 16.7 percent were by LF. Despite minor changes in some areas under different crops, it has been observed that the area under paddy crops has remained more or less similar.

Production involves the use of certain inputs either in physical or in financial terms. The magnitude of these types of costs will determined the nature and intensity of indebtedness. There are two types of expenditure incurred by the farmers as current expenditure and capital expenditure. All the current expenditure further includes, cash expenditure like purchase of seeds, fertilizers, manures, hiring machines, human and bullocks, plant protection materials etc. and non cash expenditure constitute family labour wages, owned bullock labour etc. There is a substantial difference in the price of owned labour either in human or bullock with a hired one. It has a decisive role in the situation of agricultural indebtedness. In this context, the study has collected information about the cost incurred in cash by farmers for cultivation purposes. Here, the cost incurred in cash means that, actual amount spent by the farmer in cash other than the cost incurred in kind, family labour, charges on capital, interest on capital etc.

Table 1.5: Total and Average Homestead Cropped area by Agriculture Category including Paddy

Crops	Total area (in cents)	Average cropped area (in cents)			Descriptive statistics for the area of cultivated land for each crop			
		Agriculture category			Minimum	Maximum	Mean	Std. Deviation
		LF	SF	MF				
Paddy	316456.25	26371.35	1419.09	4868.56	10	2600	239.75	217.95
Coconut	12993	1082.75	58.26	199.89	5	500	89.74	103.69
Arecanut	5480	456.67	24.57	84.31	10	750	163.14	145.49
Banana	4950	412.5	22.19	76.15	10	650	94.82	88.43
Pepper	2301880	191823.33	10322.33	35413.54	40	583	200.37	165.12
Rubber	269425	22452.08	1208.18	4145	30	500	174.44	130.01
Vegetables	1990	165.83	8.92	30.62	20	400	110.47	87.31
Ginger	1900	158.33	8.52	29.23	100	500	196.74	114.55
Coffee	12160	1013.33	54.53	187.08	30	800	214.46	142.48
Tea	200	16.67	0.89	3.08	25	200	113.88	69.72
Tapioca	481	40.08	2.16	7.4	10	500	63.07	95.16
Others	1004	83.67	4.50	15.45	1	130	20.17	32.51
Total	2928919.25	244076.60	13134.17	45060.29				

Source: Primary Survey

Crop-wise analysis of average land area cultivated across the agricultural category is calculated in the table (4.15). cultivating 11 major crops including plantation crops. average cropped area can be calculated by using the following method.

- Average size of cropped area (SF) = total area ÷ number of SF
- Average size of cropped area (MF) = total area ÷ number of MF
- Average size of cropped area (LF) = total area ÷ number of LF

It can be observed a trend that, the average area of land is highest for crops like pepper, paddy, rubber, areca nut etc. this result justified in Kerala context also. One of the major changes that have been taking place in Kerala is the gradual shift of area from food crops to plantation crops like coconut, rubber, coffee etc (Lakshmi KR and Pal TK, 1988). The reduction in area under food crops in Kerala from 40.43 percent in 1970-71 to 18.74 percent in 1992-93 and 16.52 percent in 2002-03 is a phenomenon happened very rarely in any state (Mani KP 2009). The study clearly stated that cropping pattern in favour of pepper, rubber, coconut, coffee and paddy. It has a close relation with indebtedness. That means; cropping pattern or nature and type of crop is an important determinant of indebtedness. Incidence of debt is very high among the farmers those who are cultivating plantation crops.

COST OF CULTIVATION

Table 1.7: All crops cost of production

Crops	Total expenditure	Average cost of production			Descriptive statistics for the cost of production of each crop			
		Agricultural category			Minimum	Maximum	Mean	Std. Deviation
		LF	SF	MF				
Paddy	64380986	5365082.17	288703.97	990476.71	2010	47613300	223570.19	2764670.77
Coconut	814890	67907.5	3654.22	12536.77	400	11502000	108574.30	919516.63
Arecaut	9191485	765957.08	41217.42	141407.46	300	1875000	128769.38	284781.11
Banana	8417980	701498.33	37748.79	129507.38	100	2234400	205963.15	331497.79
Pepper	713480	59456.67	3199.46	10976.62	1000	210000	85876.51	82723.02
Rubber	273000	22750	1224.22	4200	1000	2160000	231261.11	426280.02
Vegetables	65150	5429.17	292.15	1002.31	100	5000	1766.66	1235.95
Ginger	2549875	212489.58	11434.42	39228.85	20220	3240000	517432.32	649729.82
Coffee	17653445	1471120.42	79163.43	271591.46	20220	3600000	611780.23	701795.62
Tea	277400	23116.67	1243.95	4267.69	13000	346275	94766.66	117555.73
Tapioca	21800	1816.67	97.76	335.38	500	3310000	418165.38	870377.77
Others	36700	3058.33	164.57	564.62	500	3348400	482206.74	847439.74
Total		8699682.58	468144.35	1606095.25	800	47613300	649938.36	2876179.19

Source: Primary Survey, Note: values in brackets are percentages.

Table 1.8: Average amount of input cost for major crops of the sample farmers

Input	Major crops					
	Paddy	Areca nut	Banana	Pepper	Ginger	Coffee
Land preparation	13057.40	2526.67	1400	0	1835	5703.33
Seeds	5408.77	830	2100	332.8	1376.67	27256
Fertilizer	43368.07	1263.33	1547	208	1010	5686.67
Pesticides and insecticides	18218.4	0	3500	0	2458.33	
Weeding	5278.14	0	112	0	6686.66	2841.67
Water / land tax	776.54	0	0	0	0	0
Transportation	1063.78	758	420	20.8	295	454.6
Agriculture implements	13371	808.53	560	0	1285	0
Irrigation	8980	0	0	0	0	0
Harvesting	25115.87	6514.5	1120	208	1843.75	10597.92
Post harvesting	72.37	0	0	0	0	0
Other cost	2376.84	374	1096	69.33	295	1702.67
Total Labour cost	97287.93	32624.62	15925.33	1500	6328.75	35994.63

Number of labour	79	6.11	4.39	0.68	3.44	16.97
Males	19.67	4.87	4.38	0.14	0.98	2.79
Females	74.29	1.24	0.01	0.54	2.45	14.18
Male wage	395.24	108	49.33	48	32	112.13
Female wage	760.1	59.17	29.17	26.67	20	70.67
Total cost of production	232923.40	45387.74	28077.33	2318.93	13545.42	78021.9

Source: Primary survey

Income

Now, let us see how the income is varied and what extent the variation among the agricultural category by the following discussions.

Table 1.9: Total and average income from all crops

Crops	Total income	Average income			Descriptive statistics			
		Agriculture category			Minimum	Maximum	Mean	Std. Deviation
		LF	SF	MF				
Paddy	1139521 22	9496010.1 7	510996.0 6	1753109. 57	1340	2234400	139818.7 1	217746.3 3
Coconut	2542150	211845.83	11399.78	39110	400	1875000	128737.5 3	290809.6 2
Areca nut	3781780 0	3151483.3 3	169586.5 5	581812.3 1	1500	3750000	426725.6 0	601597.5 9
Banana	3315220 0	2762683.3 3	148664.5 7	510033.8 5	3000	2300000	176672.1	333159.5 8
Pepper	4214466	351205.5	18898.95	64837.94	1500	210000	64130.45	63258.70
Rubber	1940000	161666.67	8699.55	29846.15	1000	2160000	166636.1 1	433195.3 2
Vegetables	60100	5008.33	269.51	924.62	100	7200	1880.95	1666.39
Ginger	4727000	393916.67	21197.31	72723.08	20800	3600000	770913.9 5	882176.8 3
Coffee	8521200 0	7101000	382116.5 9	1310953. 85	17274	3600000	843409.6 3	846215.5 5
Tea	1440000	120000	6457.39	22153.85	1800	1575000	329421.2 2	532485.8 2
Tapioca	38300	3191.67	171.75	589.23	900	3740000	654440.1 5	1040310. 08
Others	52603	4383.58	235.89	809.28	12980	301178	90122.69	69110.54
Total		23762395. 08	1278693. 91	4386903. 71	698	78802500	498368.7 4	4559792. 32

Source: Primary Survey

There is a close association with the total cropped area per crops with the size of land holdings. Here we can observe the fact that among size of group the smaller the size of holding, the higher was the percentage of land devoted to paddy. But at the same time, the trend is different in case of other crops especially on rubber, pepper and ginger. At a certain point coconut also. This might be explained by the fact that gives first concern on their consumption needs by cultivating paddy on their small portion of land. At the same time, large farmers give a considerable importance on their crops especially plantation crops along with paddy.

Table 1.10: Income status and size of holding

Income	Size of Holding					Total
	<200	200-300	300-400	400-500	>500	
10000-20000	1 (100)	0	0	0	0	1 (100)
20000-30000	4 (80)	0	0	0	1 (20)	5 (100)
40000-50000	5 (83.3)	1 (16.7)	0	0	0	6 (100)
>50000	2 (2.3)	13 (14.8)	11 (12.5)	19 (21.6)	43 (48.9)	88 (100)
Total	12	14	11	19	44	100

Source: Primary Survey, Note: values in brackets are percentages.

Table 1.10 elicits that the degree of income variation across the agricultural category. Large size of land holding people (>500 cents) occupies higher income and farmers having less land earns lower income. The table concludes that more income is occupied by less number of farmers and the majority of farmers possessed less amount of income. It clearly gives the picture of income variation among the farmers. Therefore the larger proportion of the farmers (SF and MF) has to find out other income sources for their farming operation and also for other purposes. Since farming is their main occupation of the majority of sample farmers; they confined in farming activity even if by borrowing money from other sources. This context, which survival strategies can adopted by farmers either to overcome disreass or to survive family or family consumption is a matter of concern.

MAJOR CONCLUSIONS AND RECOMMENDATIONS

In Kerala economic scenario, as farming become uneconomic, farmers caught in a vicious circle of heavy indebtedness, poverty and debt trap leading to threatening of their livelihood and to adopt different survival strategies. Sometimes, it is overcome by selling their asset like gold, land etc, debt; from friends, money lenders, banks etc. The most important aspect here we have to notice that, unless survival strategy should be adopted based on production aspects, such as to promote production of value added products, reduce the difference between marketed and marketable surpluses, measures to reduce price volatility etc rather to go for a high debt burden, the situation become more worse. Accordingly integrated homestead farming adopted by the women from farmer households as a survival strategy to overcome the distress situation and therefore to get better socio-economic condition is needed to investigate. From the whole analysis it can be reveal the fact that homestead farming is an ultimate solution to overcome distress situation of indebted farmers in Kerala. By cultivating homestead crops, even the women unemployed members can also engaged in farming and they can produce for family consumption also. So, many of the young women farmers also have to engage on farm activities.

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