

Social and Economic Dimensions of Indian Population

Editor

Vatsala Srivastava

*Former Head, Department of Economics
M.D.D.M. College, Muzaffarpur*

&

*Managing Editor
The Oriental Anthropologist*



SERIALS PUBLICATIONS

New Delhi

In arrangement with

**The Oriental Institute of Cultural and Social Research,
Allahabad**

© Vatsula Srivastava

First Published-2003

ISBN: 81-86771-19-0

All rights reserved with the Publisher, including the right to translate or reproduce this book or parts thereof except for brief quotations in critical articles or reviews.

Published by

Head Office : SERIALS PUBLICATIONS
4, B.S.S. Hall, Khyber Pass Market,
Civil Lines, Delhi-110054 (India)
Phone: 0091-11-23811659
Fax: 91-11-23812678
e-mail: serials@satyam.net.in

Branch Office : 4830/24, Prahlad Street, Ansari Road,
Darya Ganj, New Delhi-110002 (India)
Phone: 23245225

Printed at : Tarun Offset Printers, Delhi

5

Women and Employment:

*A Study of the Employment of Women in the
Primary Sector in Goa*

Silvia M. de Mendonca-Noronha

Introduction

Women workers constitute an important component of the Indian labour force. An increasing number of women are today compelled to leave the security of their homes and venture out in search of work. The underlying factors are numerous, depending on their socio-economic status. We can divide working women into 3 categories on a socio-economic basis.

1. Agricultural workers and those engaged in traditional menial services. This group is the largest and the poorest. Their counterparts in urban areas include, construction labour, migrant labour, domestic servants and self employed women in the informal sector.
2. The second category comprises of women who work in offices or as professionals.
3. In the third category are better educated women and those who have economic security. These

women work to ameliorate their living standards and for self-actualisation.

A majority of working women fall in the middle and lower socio-economic class and they work mainly for economic reasons. These women would have preferred to remain at home and attend to household chores and their children, than offer themselves to work. Nath (1970), found in Rajasthan, that agricultural working women of both agricultural and non-agricultural households, expressed a strong desire to be able to afford the leisure of preparing two hot meals and looking after the health and personal hygiene needs of their children, as could the high caste, higher income group of women of the area, who were not working. It was further observed that, women of the non-agricultural group, in which both men and women were workers in a cement factory, withdrew from work, as soon as the husband, or one of the sons became a permanent worker with higher wages in the factory. This proves that women in the lower rungs of the economic ladder work due to economic necessity.

Significance of the Study

The Primary Sector still provides employment for a large percentage of the labour force in India. Since Independence, while the composition of India's Net Domestic Product (NDP) has changed considerably, the composition of its workforce has altered very little. The share of agriculture and allied activities in the output declined from around 52 per cent in 1951 to about 32 per cent in 1991, but their share in the workforce moved marginally from about 73 per cent to 65 per cent over the same period (Bhaduri, 1993).

We find that a large percentage of the women are employed in the agricultural sector. The main reason why we find a large percentage of women in this sector is that, as employment in other sectors demand a certain level of

skill which women lack, they have no option but to fall back on agriculture for employment.

Since a large percentage of women are found in the Primary Sector, it would be interesting to know the percentage of women employed in the primary sector viz a viz that of men, if women in the primary sector are employed in 'agriculture proper' or in 'allied activities' in the primary sector, if within 'agriculture proper', they are employed as agricultural labourers or as cultivators and, if the percentage of women working as marginal workers in this sector is greater than that of men.

The paper has been divided into six sections along the following lines:

- **Section 1:** Sex Distribution of the total workforce in the Primary Sector as a whole, 1961-'91.
- **Section 2:** Sex Distribution of the workforce in 'Agriculture Proper', 1961-'91.
- **Section 3:** Sex Distribution of the workforce as, (i) Cultivators and (ii) Agricultural Labourers, 1961-'91.
- **Section 4:** Sex Distribution of the workforce in 'Activities Other than Agriculture Proper'.
- **Section 5:** Conclusion.
- **Section 6:** Policy Implications

1. Sex Distribution of the Total Workforce in the Primary Sector as a whole, 1961-'91

This section discusses the sex distribution of the total workforce in the primary sector as a whole.

From table 1 we note a decline in the workforce in the Primary Sector both in absolute terms and in percentage (refer column 7) from 1961-'91. However this decline has not been equal in male and female workers. The present section

Table 1: Sex Distribution of the Total Workforce in Goa and in the Primary Sector

Year	Total Workforce in Goa			Total Workforce in the Primary Sector		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7 (5+)
1961	147,036	97,225	244,261	88,546 (60%)(51%)	83,547 (86%)	172,093 (70%)
1971	192,624	61,851	254,475	83,856 (44%)(67%)	41,692 (67%)(33%)	125,548 (49%)
1981 Main	234,975	76,272	311,247	82,230 (35%)(67%)	40,270 (53%)(33%)	122,500 (39%)
Marginal	12,367	32,595	44,962	8,974 (73%)(24%)	28,562 (88%)(76%)	37,538 (83%)
Total	247,342	108,867	356,209	91,204 (37%)(57%)	68,832 (63%)(43%)	160,038 (45%)
1991 Main	287,154	96,405	383,559	81,008 (28%)(65%)	42,853 (44%)(35%)	123,861 (32%)
Marginal	7,605	21,572	29,177	4,734 (62%)(20%)	18,365 (85%)(80%)	23,099 (79%)
Total	294,759	117,977	412,736	85,742 (29%)(58%)	61,218 (52%)(42%)	146,960 (36%)

Source: Census of India, 1961, 1971, 1981, 1991, Goa, Daman and Diu, Economic Tables.

- Note:
1. Figures given in brackets in columns 5 and 6 are the percentages of figures in column 2 and 3 respectively the said columns.
 2. Figures given italics in 5 and 6 shows the percentage of male and female workforce in primary sector.
 3. Figures given in brackets in col 7 are the percentages, of figures in column 4.

attempts to throw light on the trends in the sex distribution of the workforce in the Primary Sector during this period.

From columns 5, 6 and 7 in the table we observe the following:

1. A decline in absolute terms in the number of male workers in the Primary sector from 88,546 (col.5) in 1961 to 85, 742 in 1991.
2. The female workforce also shows a decline in absolute terms in the Primary Sector from 83,547 in 1961 to 61,218 in 1991.
3. There has been a rise in the percentage of the male workforce in the Primary Sector viz a viz that of the females, from 51% in 1961 to 58% in 1991, (refer col. 5).
4. The percentage of the female workforce in the Primary Sector in Goa viz a viz the male workforce shows a fall from 49% in 1961 to 42% in 1991, (Col.6).
5. We note a fall in the percentage of the male workforce in the Primary Sector to the male workforce in Goa from 60% in 1961 to 29% in 1991 (Col.5).
6. The percentage of the female workforce in the Primary Sector in Goa declined from 86% in 1961 to 52% in 1991, (Col. 6,).
7. Although, the percentage of the total female workforce in the Primary Sector, to the total female workforce in Goa, declined from 86% in 1961 to 52% in 1991, it was higher than the percentage of the total male workforce in the primary sector to the total male workforce in Goa, which was 60% in 1961 and declined to 29% in 1991 (refer col. 5&6).
8. The percentage of female marginal workers is higher than that of males both in 1981 and in 1991.

From the above observations we conclude the following.

1. The primary sector in Goa has been male dominated and this domination has increased from 1961-'91.
2. More female workers out of the total female workforce in Goa (52% in 1991) are employed in the primary sector than males. This implies that the females have been getting employment mainly in the primary sector in Goa.
3. The percentage of female marginal workers in the Primary Sector is greater than that of males, which implies that more female workers are employed as marginal workers in the primary sector than males.

2. Sex Distribution of the Workforce Employed in 'Agriculture Proper', 1961-'91

This section discusses the sex distribution of the total workforce in 'Agriculture Proper'. 'Agriculture Proper' includes cultivators and agricultural labourers.

From the above table we make the following observations:

1. The total male workforce in agriculture proper declined in absolute terms from 66,394 in 1961 to 58,549 in 1991.
2. We also note a decrease in absolute terms in the total female workforce in agriculture proper from 75,702 in 1961 to 54,862 in 1991.
3. The percentage of the male workforce in agriculture proper to the total male workforce in the primary sector declined from 75% in 1961 to 68% in 1991.
4. The percentage of the female workforce in agriculture proper to the total female workforce in the primary sector also declined from 91% in 1961

Table 2: Sex Distribution of the Total Workforce Employed in Agriculture Proper

Year	Total Workforce in the Primary Sector			Total Workforce in Agriculture Proper		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7
1961	88,546	83,547	172,093	66,394 (75%)(47%)	75,702 (91%)(53%)	142,096 (83%)
1971	83,856	41,692	125,548	61,975 (74%)(63%)	36,840 (88%)(37%)	98,815 (79%)
1981	82,230	40,270	122,500	53,775 (65%)(60%)	35,157 (87%)(40%)	88,932 (73%)
Marginal	8,976	28,562	37,538	7,959 (89%)(22%)	27,552 (97%)(78%)	35,511 (95%)
Total	91,206	68,932	160,038	61,734 (98%)(49.6%)	62,709 (78%)(50.4%)	124,443 (78%)
1991	81,008	42,853	123,861	54,370 (67%)(59%)	37,442 (87%)(41%)	91,812 (74%)
Marginal	4,734	18,365	23,099	4,179 (88%)(19%)	17,420 (95%)(81%)	21,599 (94%)
Total	85,742	61,218	146,960	58,549 (68%)(52%)	54,862 (90%)(48%)	113,411 (77%)

Source: Census of India 1961, 1971, 1981, 1991, Goa, Daman and Diu, Economic Tables.

- Note:
1. Percentages in italics percentages of figures in column 5 and 6 respectively with that of figures in col. 7.
 2. Percentages in brackets are percentages of figures in columns 5, 6 and 7 with that of figures in cols. 2, 3 and 4 respectively.

to 90% in 1991—a marginal decline over a period of 30 years.

5. The percentage of the male workforce to the total workforce (Male+female) in agriculture proper increased from 47% in 1961 to 52% in 1991.
6. The percentage of the female workforce to the total workforce (male+female) in agriculture proper decreased from 53% in 1961 to 48% in 1991.
7. From 1981 to 1991 there has been a decline in the male marginal workers from 22% of the total workforce in agriculture proper to 19% in 1991, whereas the female workers in agriculture proper show a rise from 78% in 1961 to 81% in 1991.

From the above observations we can conclude the following:

1. Less number of male workers are being employed in agriculture proper both in absolute terms as well as in the percentage to the total workers in the primary sector from 1961-'91.
 2. Most of the female workers in the primary sector are employed in agriculture proper, (90% in 1991) which implies that other avenues of employment in the primary sector are more favourable for men.
 3. More females are employed as marginal workers in agriculture proper than males.
- 3. Sex Distribution of the Total Workforce Employed as Cultivators, 1961-'91.**

This section discusses the sex distribution of the total workforce employed as cultivators from 1961-1991.

(i) Cultivators

At the outset, it is appropriate to first define the term 'cultivator' as used in the various censuses.

The 1961 Census definition: In the 1961 Census, the term 'cultivator' included both the owner cultivators, as well as tenant cultivator. Therefore, "all persons working in land, cultivation on which they had either ownership or tenancy rights were included in this category. 'Cultivation' according to this census involved ploughing, sowing and harvesting and did not include fruit growing, keeping of orchards or groves and working for plantations like coffee, tea, rubber, chinchona and other medical plantations."

The 1971 census definition: The 1971 Census says," for purposes of the census a cultivator is one who is engaged in cultivation by oneself or by supervision or direction in one's capacity as owner or leases of land held from private person (s) or institution(s) for consideration of payment in cash, kind or share. A person who merely owns land but has given out land to another person or persons for cultivation for money, kind or share of crop and who does not even supervise or direct cultivation of land, is not considered to be working as a cultivator. Similarly, a person working on another person's land for wages in cash, kind or share is also not considered as cultivator".

The 1981 Census definition: According to the definition in the 1981 Census, "a person is working as cultivator if he or she is engaged either as employer, single worker or family worker in cultivation of land owned or held from Government or held from private person or institutions for payment in money, kind or share. Cultivation includes supervision or direction of cultivation. A person who has given out his/her land to another person or persons for cultivation for money, kind or share of crop and who does not even supervise or direct cultivation of land, will not be treated as cultivator. Similarly a person working in another person's land for wages in cash or kind or a combination of both (agricultural labourer) will not be treated as cultivator."

Table 3: Sex Distribution of the Total Workforce Employed as Cultivators

Year	Total Workforce in the Primary Sector			Total Workforce employed as cultivators		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7
1961	88,546	83,547	172,093	54,161 (61%)(52%)	49,978 (60%)(48%)	104,139 (61%)
1971	83,856	41,692	125,548	41,899 (50%)(69%)	18,620 (45%)(31%)	60,519 (48%)
1981 Main	82,230	40,270	122,500	37,321 (45%)(64%)	21,055 (52%)(36%)	58,376 (48%)
Marginal	8,976	28,562	37,538	4,236 (47%)(22%)	15,236 (53%)(78%)	19,472 (54%)
Total	91,206	68,832	160,038	41,557 (46%)(53%)	36,291 (53%)(47%)	77,848 (49%)
1991 Main	81,008	42,853	123,861	35,201 (43%)(62%)	21,327 (50%)(38%)	56,528 (46%)
Marginal	4,734	18,365	23,099	2,136 (45%)(18%)	9,972 (54%)(82%)	12,108 (52%)
Total	85,742	61,218	146,960	37,337 (44%)(54%)	31,299 (51%)(46%)	68,636 (47%)

Source: Census of India 1961, 1971, 1981, 1991, Goa, Daman and Diu, Economic Tables.

Note: (1) Percentages not underlined are percentages of figures in cols. 5 and 6 respectively with that of figures in col. 7.

(2) Underlined percentages are percentages of figures in cols. 5, 6, and 7 with that of figures in cols. 2, 3, and 4 respectively.

The 1991 Census definition: According to the definition in the 1991 Census, "a person is working as cultivator if he or she is engaged either as employer, single worker or family worker in cultivation of land owned or held from Government or held from private persons or institutions for payment in money, kind or share. Cultivation includes supervision or direction of cultivation. A person who has given out his/her land to another person or persons for cultivation for money, kind or share of crop and who does not even supervise or direct cultivation of land, will not be treated as cultivator. Similarly, a person working in another person's land for wages in cash or kind or a combination of both (agricultural labourer) will not be treated as cultivator."

From Table 3 we make the following observations:

1. The number of male cultivators decreased in absolute terms from 54,161 in 1961 to 37,337 (Total figures) in 1991. The total female cultivators also declined from 49,978 in 1961 to 31,299 in 1991.
2. The percentage of the male workforce engaged as cultivators in the primary sector declined from 61% in 1961 to 44% in 1991. The percentage of female cultivators to the total female workforce in the primary sector also declined from 60% in 1961 to 51% in 1991. However, the decline is greater in the case of male cultivators (the percentage of male cultivators declined by 17% points from 1961 to 1991 and that of female cultivators declined by 9% points).
3. We note throughout that the percentage of females engaged as cultivators has always been lower than that of males except in the case of marginal workers where we find a higher percentage of females.

From the above observations we conclude the following:

1. There seems to be a general decline in the absolute number as well as the percentage of both male and female cultivators from 1961 to 1991 in Goa.

2. More males are engaged as cultivators than females.
3. There are more female cultivators who are marginal workers than males.

(ii) *Agricultural Labourers*

The 1961 Census definition: According to the 1961 Census, "an agricultural labourer is one who works in another person's land only as a labourer (without exercising any supervision or direction in cultivation) for wages in cash, kind or share of produce. He should have been working as agricultural labourer in the last or in the current working season."

The 1971 Census definition: According to this Census, an agricultural labourer was, "a person who works in another person's land for wages in money, kind or share. He has no risk in the cultivation but merely works in another person's land for wages. The labourer could have no risk in the cultivation but merely works in another person's land for wages. The labourer could have no right of lease or contract on land on which he works."

The 1981 Census definition: The 1981 Census definition is the same as the 1971 Census definition. According to this Census, "a person who works on another person's land for wages in money, kind or share should be regarded as an agricultural labourer. He or she has no risk in the cultivation but he/she merely works in another person's land for wages. An agricultural labourer has no right of lease or contract on land on which he/she works."

The 1991 Census definition: According to the 1991 Census, "A person who works in another person's land for wages in money, kind or share should be regarded as an agricultural labourer. He or she has no risk in the cultivation but he/she merely works on another person's land for wages. An

agricultural labourer has no right of lease or contract on land on which he/she works."

• We note that the definition of agricultural labourer in the last three censuses are the same.

From the data given in Table 4 we make the following observations:

1. There was an increase in absolute number in the total male as well as female agricultural labourers from 12,233 in 1961 to 21,212 in 1991, but a decrease in the case of female agricultural labourers from 25,724 in 1961 to 23,563 in 1991.
2. The percentage of both male and female workers employed as agricultural labourers from the total male as well as female workers employed in the primary sector has increased from 1961 to 1991. In the case of males it was from 14% in 1961 to 25% in 1991 and in the case of females it was from 31% in 1961 to 38% in 1991. The increase was greater in the case of male workers by 11% points as against 7% points in the case of females).
3. We also note from the table that from 1961 to 1991 the percentage of females engaged as agricultural labourers is greater than that of males. However from 1961 to 1991 the percentage of males employed as agricultural labourers has increased while that of females has decreased.
4. The percentage of marginal workers in the case of female agricultural labourers is greater than that of males.

From the above observations we conclude the following:

1. A higher percentage of agricultural labourers are females in Goa.

2. The percentage of females viz a viz that of males, employed as agricultural labourers is declining.
3. A high percentage of the women employed as agricultural labourers in the primary sector from 1981 to 1991 are marginal workers.

From the above table we make the following observations:

1. The total male workforce engaged in activities other than in agriculture proper increased in absolute terms from 22,152 in 1961 to 27193 in 1991, whereas there was a decline in absolute terms in the female workforce in these activities from 7,845 in 1961 to 6,356 in 1991.
2. The percentage of the total male workforce in other than agriculture proper to the total male workforce in the primary sector increased from 1961 to 1991 by 7% points, i.e. from 25% in 1961 to 32% in 1991, whereas the percentage of the total female workforce in other than agriculture proper to the total female workforce in the primary sector increased only marginally by 1% point from 9% in 1961 to 10% in 1991.
3. From 1961 to 1991 we note that the percentage of the male workforce engaged in other than agriculture proper was much higher than that of the female workers (refer percentages that given italics in cols. 5 and 6).

From the above observations we conclude that this sector is more conducive to the employment of men rather than women.

From the analysis of the above tables we conclude the following.

Table 4: Sex Distribution of the Total Workforce Employed as Agricultural Labourers

Year	Total Workforce in the Primary Sector			Total Agricultural Labourers		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7
1961	88,546	83,547	172,093	12,233 (14%)(32%)	25,724 (31%)(68%)	37,957 (22%)
1971	83,856	41,692	125,548	20,076 (24%)(52%)	18,220 (44%)(48%)	38,296 (31%)
1981 Main	82,230	40,270	122,500	16,454 (20%)(54%)	14,102 (35%)(46%)	30,556 (25%)
Marginal	8,976	28,562	37,538	3,723 (23%)	12,316 (77%)	16,039 (43%)
Total	91,206	68,832	160,038	20,177 (22%)(43%)	26,418 (38%)(57%)	46,595 (29%)
1991 Main	81,008	42,853	123,861	19,169 (24%)(54%)	16,115 (38%)(46%)	35,284 (28%)
Marginal	4,734	18,365	23,099	2,043 (43%)(22%)	7,448 (41%)(78%)	9,491 (41%)
Total	85,742	61,218	146,960	21,212 (25%)(47%)	23,563 (38%)(53%)	44,775 (30%)

Source: Census of India 1961, 1971, 1981, 1991, Goa, Daman and Diu, Economic Tables.

- Note:
1. Percentages in italics are percentages of figures in Cols. 5 and 6 with that of figures in col. 7 respectively.
 2. Percentages given in brackets are percentages of figures in cols. 5, 6 and 7 with that of figures in cols. 2, 3 and 4 respectively.

5. Conclusion

1. More female workers are engaged in the primary sector than males.
2. compared to males there are more female marginal workers in the primary sector.
3. As compared to males, more females in the primary sector are engaged in agriculture proper which implies that, the other areas in the primary sector were more favourable for men.
4. Female marginal workers form 81% of the total marginal workers in agriculture in 1991. From 1981-'91, there has been an increase in the percentage of female marginal workers in agriculture proper from 78% in 1981 to 81% in 1991.
5. In agriculture proper, a higher percentage of women workers are employed as agricultural labourers than as cultivators from 1961 to 1991, whereas more males are employed as cultivators.
6. More males are employed in "other than agriculture proper" than females, indicating that activities outside agriculture proper are more favourable for the employment of male workers.

Thus we conclude that in the primary sector, women are by and large employed in Agriculture Proper. Within this category they are largely employed as agricultural labourers, and that too a large percentage of them work as marginal labourers.

6. Policy Implications

From the above study, we find that the percentage of women employed in the primary sector is higher than that of men. Within the primary sector, women are largely employed as agricultural labourers and a much higher

Table 5: Sex Distribution of the Total Work Force Employed in Activities other than Agriculture Proper

Year	Total Workforce in the Primary Sector			Total Workforce in other than Agriculture proper		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7
1961	88,546	83,547	172,093	22,152 (25%)(74%)	7,845 (9%)(26%)	29,997 (17%)
1971	83,856	41,692	125,548	21,881 (26%)(82%)	4,852 (12%)(18%)	26,733 (21%)
1981 Main	82,230	40,270	122,500	28,455 (35%)(85%)	5,113 (13%)(15%)	33,568 (27%)
Marginal	8,976	28,562	37,538	1,017 (11%)(50.2%)	1,010 (3.5%)(49.8%)	2,027 (5%)
Total	91,206	68,832	160,038	29,472 (32%)(83%)	6,123 (9%)(17%)	35,595 (22%)
1991 Main	81,008	42,853	123,861	26,636 (33%)(83%)	5,411 (13%)(17%)	32,049 (26%)
Marginal	4,734	18,365	23,099	555 (12%)(37%)	945 (5%)(63%)	1500 (6%)
Total	85,742	61,218	146,960	27,193 (32%)(81%)	6,356 (10%)(19%)	33,549 (23%)

Source: Census of India, 1961, 1971, 1981, 1991, Goa, Daman and Diu, Economic Tables.

- Note:**
1. Percentages in italics are percentages of figures in cols., 5,6 and 7 with that of figures in cols. 2, 3 and 4 respectively.
 2. Percentages given in brackets are percentages of figures in cols. 5 and 6 with that of figures in col.7.

percentage of women are employed as marginal workers than men.

The primary sector being an unorganised sector, it increases the opportunities to exploit women. Therefore, the government should take extra precaution to protect the rights of women, who are easy targets for exploitation by their employers, by appropriate legislations to safeguard their interests. These legislations should be constantly monitored, to make sure that they are properly implemented.

Within the primary sector, more employment opportunities should be created in allied activities for women, as it is found that in this sub-sector, the percentage of women employed is very low. This will enable women to earn higher incomes. This will also enable them to be gainfully employed. These allied activities could be home-based, which will enable more women to take up such activities with ease. Training programmes can be started for women in animal husbandry, rural crafts etc. However these training programmes, should be so designed, as to take account of the dual roles women play as producers and family nurturers. Training should not involve long absences from home, with the onset of economic reforms in India, and the increasing importance given to informal sector activities, women can find themselves gainfully employed in such activities.

The government should seriously implement the various schemes for self employment of women in rural areas such as DWCRA (Development of Women and Children in Rural Areas), IRDP (Integrated Rural Development Programme) etc.

REFERENCES

- Anker R., Buvinic M. and Youssef N.H., (1982) *Women's Role and Population Trends in the Third World*, Croom Helm, London.
- Anker R., (1983), "Female Labour Participation in Developing Countries", *International Labour Review* Vol. 122, No. 6.

- Banerjee, N., (1999), "Women in the Emerging Labour Market", *The Indian Journal of Labour Economics*, Vol. 42, No. 4.
- Bhaduri, A. (1993), "*Structural Adjustment, Labour Market and Employment in India*", ILO-ARTEP.
- Director of Census Operations, Goa, Daman and Diu, "*Census of India, 1961, Goa, Daman and Diu, Economic Table.*"
- , Goa, Daman and Diu, "*Census of India, 1971, Goa, Daman and Diu, Economic Tables.*"
- , Goa, Daman and Diu, "*Census of India, 1981, Goa, Daman and Diu, Economic Tables.*"
- , Goa, "*Census of India, 1991, Goa, Economic Tables*".