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Failure of success? An analysis of Tamil Nadu's demographic experience

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THE FAILURES OF SUCCESS?
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ABSTRACT

The present paper is part of a larger agenda aimed at exploring the complex interaction of various forces and factors underlying the phenomena of fertility decline in Tamil Nadu. Its genesis lies in the findings of a disaggregated analysis of fertility rates within Tamil Nadu which revealed that there exist districts like Kanyakumari on the one hand and Periyar on the other, (representing two polar situations as it were), the former marked by high fertility rates despite high female literacy rates, the latter marked by low fertility rates despite low literacy rates. Given such a scenario it therefore becomes imperative to explore the phenomenon of fertility transition at a disaggregated level rather than resorting to facile (linear) causal relationships from macro level data. The modest objective of this paper is to provide the outline of a framework to pursue such a disaggregated exercise.

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THE FAILURES OF SUCCESS? AN ANALYSIS OF TAMILNADU'S RECENT DEMOGRAPHIC EXPERIENCE

> At least two factors have contributed to Tamil Nadu's success, namely, strong social and political commitment and good administrative back-up.[1] - Ashish Bose, member, Expert Group, Draft National Population Policy

> Another Indian State, Tamil Nadu, had an even faster fall [in fertility rate] from 3.5 in 1979 to 2.2 in 1991. Tamil Nadu has had an active, but cooperative family planning programme, and it could use for this purpose a comparative good position in terms of social achievements within India. — Coercion of the type employed in China has not been used either in Tamil Nadu or in Kerala and both have achieved much faster declines in fertility than China has achieved since it introduced the one child policy and the related measures. A.Sen[2]

> As neither the economic standards nor the literacy level of Tamil Nadu nor its employment potential for females were much higher than most of the other states in Southern India, the comparatively high age of marriage and easier acceptance of the concepts of family planning has to be ascribed to a strong social awareness programme created by a great social reformer named Periyar Ramaswamy. Long before governments introduced the family planning programme, Periyar emphasized the need 'to liberate women from frequent delivery by use of contraception'. Also 'not to allow marriage of a woman before she is 22', so that '3 to 4 births can be averted' and to explain the desirability of the two child norm at every marriage', etc. Periyar's doctrines had a strong impact on successive political governments in the state, as some of his disciples later became political chiefs of the state - T.V.Antony, former Chief Secretary to Tamil Nadu Government, and member, Expert Group, Draft National Population Policy.[3]

I

The demographic 'success' of Tamil Nadu as evidenced by the perceptible decline in its fertility rates (including in the rural areas) during the decade of the eighties has left everyone gasping for explanations. Predictably, the state government has gone overboard in attributing this achievement to the effectiveness and efficacy of its official bureaucracy in successfully implementing a fertility regulation programme. Worse, Tamil Nadu has become a model for the high fertility states of the country: the protagonists supporting direct birth control measures now argue that these states need not wait for development to bring about fertility decline. The fact that, Tamil Nadu, despite not enjoying the economic standards of most other states and/or the historical advantages of Kerala, could make commendable demographic progress is proof enough that family planning can do the job single-handed. The contradictions of an historically continuous decline in sex ratio in Tamil Nadu, the still prevalent but relatively recent practice of female infanticide in certain pockets, and the rising incidence of other forms of violence against women in the land of EVR, are not the kind of issues that engage family planning officials and/or demographers who single-mindedly pursue a one-point fertility reduction programme.

Others like A.Sen have proffered a more sophisticated explanation. By emphasizing the centrality of a basic relationship between women's well-being and their agency, Sen argues that the "reach of that agency can be very extensive indeed and it does of course inter alia include the possibility of reasoned decisions about fertility."[4] Sen singles out Tamil Nadu for its commendable performance; but it is not clear on what basis Sen has concluded that "Tamilnadu has had an active but cooperative family planning programme" (emphasis ours). In our view Sen has used the term cooperation to mean the opposite of coercion and/or authoritarianism. The term itself is not problematised to explore whose cooperation is being sought and on what terms. The fact that women can be coerced into cooperation cannot be accommodated in Sen's presentation. Feminist researchers and activist groups are still grappling with the phenomenon of fertility decline in Tamilnadu and attempting to unravel its implications for policy, but not many are prepared to buy the 'enlightened state' or the 'cooperative family planning' argument. As one researcher very succinctly summed up the present state of research on the question:

"We have yet to learn from the women concerned why they are having fewer children while women from other parts of the country living under similar economic and social conditions are unable or unwilling to do so."[5]

The present paper is part of a larger agenda aimed at exploring the complex interaction of various forces and factors underlying the phenomenon of fertility decline in Tamil Nadu. Its genesis lies in the findings of a disaggregated analysis of fertility rates within Tamilnadu which revealed that there exist districts like Kanyakumari on the one hand and Periyar on the other, (representing two polar situations as it were), the former marked by high fertility rates despite high female literacy rates,[6] the latter marked by low fertility rates despite low literacy rates. Our broad agenda includes initially a collation and analysis of available material from secondary sources to get a geographically disaggregated picture of the economy and demography of Tamil Nadu. This will be followed by intensive interviews with different sections of the population in representative districts, disaggregated by sex, religion, class, employment, community etc.

An important question for examination in the course of the field work will be the concrete manner in which women's freedom of reproductive choice is constrained by patriarchal structures, which in the context of districts like Kanyakumari seem to be coercively pronatal as manifested in the high levels of fertility there.[7] Coercive pronatalism can be the result of social and economic inequality not just between communities and families, but, more so, within the family, which, in turn reduces the bargaining power of individual women, thereby making it possible for husbands to impose their own family size decisions on wives. The study of districts like Periyar, in contrast, would constitute an interesting testing ground to explore the much touted and oft-repeated statement that southern kinship systems bestow relatively greater autonomy on females than northern kinship systems. Greater or high autonomy in this context implies an ability to influence and make decisions covering the full range of personal, sexual and household affairs. Thus concrete exploration of the relationship between patriarchy and motherhood, should, we hope, go some way towards explaining what combinations of cultural, economic and political conditions interact to create a particular demographic pattern. More important, knowledge of the processes involved is crucial to policy analysis to avoid facile linear causal connections as between, say, female schooling and fertility, and/or between female employment and fertility.

The modest objective of this paper is to provide a framework to situate the larger study outlined above. We begin with a brief discussion of the current demographic debate in India generated largely by the Draft National Population Policy Report of an expert group set up by the government of India.[8] This discussion on the Draft National Population is important in order to contextualize our study of Tamil Nadu. In the light of Tamil Nadu's experience the view being highlighted by demographers (and which viewpoint dominates the Draft policy) is that fertility can be made to decline at different levels of economic and social development through organised and effectively administered family planning programmes. By and large, the feminist response to this Draft, at one level, is reminiscent of the classic discourse on, whether high population is a malady or symptom;[9] at another level it reveals the different dimensions of the violence on women of a direct fertility reduction programme. Using Kanyakumari and Periyar as illustrative cases we hope to underscore two main points:

(a) The theoretical approach to population policy as such needs to move away from the perspectives of demographers who define policy in a very restrictive way. In the 'general linear reality' assumption of much of demographically driven policy, the same variables must have the same effects irrespective of context. Such policy does not recognize and therefore does not provide the space to explore the differential impact of the same policy on diverse socio-economic subpopulations across nation-states and/or territorial subunits within nations.[10]

(b) The concept of increased women's agency through variables such as increased female literacy and increased female labour force participation has been conflated to indicate increased female autonomy in decisions relating to fertility. This, to us, is highly problematic, since, among other

things, the whole issue of fertility is linked to sexuality. There is, therefore , need to document even for a demographic understanding of fertility, the elements of sexual choice, sexual health and sexual enjoyment from a gender perspective. This would capture, at one level, how vulnerable or otherwise, couples in general and women in particular are, to pressures emanating from the wider needs of the caste/community to which they belong. At another level it would also indicate the degree to which women (within these caste/kinship structures) are able to influence decisions on questions such as the number of children, the use of contraception and of particular contraceptive methods, termination of pregnancy - in short, the whole question of the quality of partnership between man and woman.

II

The tabling of the Draft National Population Policy (henceforth, the Draft) marks in some sense a watershed as far as the politics and praxis of demography (in this country) is concerned. The basic premise of the Draft is that population stabilisation is vital for safeguarding the livelihood security of the poor and the ecological security of the nation. Thereafter there is complete disjuncture between the analysis of 'the population problem', the socio-demographic goals sought to be achieved by the year 2010 and the structures and measures designed for implementation.

The analysis at once, very cleverly combines what has come to be known in the literature on population as the 'political discourse' and the 'development discourse'.[11] Very briefly, the 'political discourse' challenges the traditional models of development. "It does not treat population growth as an exogenous factor, but sees it directly linked with the institutional structure of society." [12] The development discourse on the other hand, considers that "population is basically an independent phenomenon linked to the introduction of modern medicine in traditional communities: that low fertility rates are a characteristic of development and therefore something desirable in itself: that people in the South will desire less children if they are provided safe modern contraceptives, better health services and education."[13]

The political discourse part of the Draft, very correctly identifies those responsible for the environmental crisis. To quote the Draft: "The unsustainable life styles of both wealthy nations and wealthy people everywhere are posing a threat to climate, particularly precipitation and are contributing to a potential rise in sea levels and ultra-violet B radiation. Under such circumstances, the loss of every gene or species limits our capacity to adapt to new situations. It is high time the limits to the human carrying capacity of the supporting eco-systems are recognized."

However, the above statement is immediately followed by the assertion that : "Population, poverty and environmental degradation have close linkages, and quest for food, education, health and work for all will remain illusory unless success is achieved in limiting the growth of population" (emphasis added).

In one swift action, from one paragraph to another, the Expert Group has been able to traverse what took the US nearly 60 years of demographic research.[14]

Socio demographic goals: The Draft claims, to have ushered in a 'new paradigm of population stabilization based on 'environmental stabilisation, economic replaceability and social equity'. This paradigm shift is, according to the Draft, essential for achieving the following national socio demographic goals for the year 2010.

i) Implementation in totality of the Minimum Needs Programme, and in particular, universalisation of primary education and reduction in the drop-out rates of primary and secondary school students, both boys and girls, abolition of child labour and priority to primary health care.

ii) Reduction in the incidence of marriage of girls below the age of 18 years to zero.

iii) Increase in the percentage of deliveries conducted by trained personnel to one hundred per cent.

iv) Reduction in maternal mortality rate to less than 100 per 100,000 live births.

v) Universal immunisation of children against Tuberculosis, Polio, Diphtheria, Whooping cough, Tetanus and Measles and reduction in the incidence of diarrhoea and acute respiratory infections.

vi) Infant Mortality Rate (IMR) of 30 per thousand live births, and a sharp reduction in child mortality rate (1-4 years); also, a sharp reduction in the incidence of low birth weight babies (below 2.5 kg.)

vii) All individuals to have access to information on birth limitation methods, so that they have the fullest choice in planning their families.

viii) Universal access to quality contraceptive services in order to lower the Total Fertility Rate (TFR) from 3.6 in 1991 to 2.1 by the year 2010.

ix) Containment of AIDS and sexually transmitted diseases.

x) Full coverage of registration of births, deaths and marriages.

Predictably 'the paradigm shift' is articulated more in terms of demographic goals; here again the target population consists of women and children precisely because the responsibility for limiting birth is deemed to be a women's responsibility. Between analysis of the problem and the specification of the goals, the Draft has managed a neat transition involving a shift from (a) identifying the consumption and living standards of the North plus the elites of the South as (historically and currently) responsible for environmental degradation, to (b) postulating that stabilising world population is the more realistic way to move towards sustainability, and further towards (c) suggesting the creation of such an 'enabling environment' that ultimately makes fertility reduction the key to the whole problem.

The structures and measures suggested by the Group to achieve a total fertility rate of 2.1 by the year 2010 are explicitly based on the assumption that "people who have large families should change their behaviour because the ones who created the problem in the first place cannot do so."[15] As part of its structures for implementation the Draft envisages a major role for panchayat raj institutions in the implementation of the proposed population control programme. What makes this laudable objective at once both anti-poor and anti-women stems from the Draft's poor conception of these institutions as well as the punitive clauses that make participation in these institutions conditional.[16]

Responses to the Draft, particularly from a large section of women's groups all over the country, in many ways questioned and reversed the terms of the problematique as posed by the Expert Group. Women not only held India's development model adopted since independence responsible for its economic crises, but going further, argued that, in a scenario, where the 'ever teeming millions' constitute an expanding constituency of the poor, the malnourished, the diseased and the deprived, population growth in fact very often becomes a solution, particularly at the local level.

The approach to matters of population policy clearly revealed fundamental differences in perception between the Expert Group and the women's groups in particular. While women implicitly seemed to stress the importance of motivation over means, the Expert Group (which had an overdose of demographers) - invoking the supposed urgency of the problem it was solving - articulated its policy in terms of the attainment of certain specified aggregate demographic targets. To demographers, as Demeny, has ably put it, "the problem of motivation seemed and was inherently difficult: systemic and structural. The problem of means in contrast, was potentially soluble by suitable application of money: packageable as a program embodying specific and tangible resources."[17]

The Draft itself was a culmination of a series of observations and studies undertaken by the members of the Group as well as other pro-population policy researchers. Despite strident criticism of the Draft from various quarters, the members of the Group upheld the right of the state to intervene directly in birth control; at public forums they were however careful in butteressing their arguments

with a lot of pro-women stances using feminist vocabulary. An important member of the Expert Group and also the architect of Tamil Nadu's family planning programme, is Mr.T.V.Antony. Since, demographically speaking, the decade of the eighties belongs to Mr.T.V.Antony and to Tamil Nadu (in that order) it is to a consideration of Tamil Nadu's fertility reduction record that we will now turn.

III

Fertility Change in Tamil Nadu: The Official Version:

Antony's impatience with the critics of family planning programmes and his frustration with those who do not share his characterization of population as the problem is discernible from the following outburst:

> What is most frustrating is that despite the disastrous implications of this explosive population growth for every sector of the economy and in particular to the environment, there does not appear to be much public support for the family planning programme. Whereas inflation, natural calamities, environmental degradation, etc. are all among the many topics which capture media and public attention today, family planning rarely gets any mention. What is forgotten is that these problems which are now being highlighted represent only the external manifestation of our primal malady, namely, a rapidly growing population![18]

Even while listing 'other important factors which influence fertility', Antony's preocupation with birth control as the ultimate goal comes out very starkly.

> "In preaching a way of life involving later marriage, lower IMR, higher birth weights for children, spacing and stopping the child birth cycle early, contraception has an important role to play. If in Tamil Nadu, the CBR has fallen drastically to about 20/1000 in recent years, I believe it was caused not so much by its female literacy level (which is not remarkable) nor by its health standards, nor by its age of marriage levels, or its couple protection rates, but by a combination of all these, plus above all the conviction that has now been implanted in the minds of practically every couple, that a small family is ideal, that children need not die etc. This has been done through the dedicated services of the over two hundred thousand Mid day meal employees, and the several thousand Health and Social Workers in allied Nutrition and Health Programmes both in government and in the very effective voluntary organisations under the overall umbrella of a supportive political system."[19]

Antony's euphoria over what he considers to be a successful government intervention in the field of fertility reduction finds its echo in the international arena as well. In his analysis of the Asian fertility reduction, Caldwell argues that the considerations that needed to be addressed with regard to the historical European fertility transition are wholly inadequate for addressing contemporary third world fertility transition, especially in Asia.[20] Any comprehensive demographic transition theory now has to consider, in addition, according to Caldwell, such matters as the following: "Are women or couples more likely to limit family size if free or cheap contraception is readily available and if its availability is made widely known? Are they more likely to employ such contraception if it is made respectable and the morally appropriate thing to do because of the urging of national leaders, local bureaucrats, family planning workers, and the media? Are they likely still to employ contraception if there are elements of community pressure or even governmental duress?" And Caldwell himself provides the answer by stating that: "The evidence from that part of Asia that lies in an arc from South Korea to India is that the answer to all these questions is 'yes' " [21]

Fertility Decline in Tamil Nadu: Other Perspectives

The discussion in this section dwells on those studies that go beyond narrow demographic details to encompass broader issues of social and economic development including dimensions of patriarchy, gender inequality and women's agency.

Sunita Kishor's study of fertility decline in Tamil Nadu is part of a series of publications stimulated by the preparations for the UN 1994 Conference on Population and Development.[22] The objective of this study, in the author's words, is to "evaluate the pace and timing of decline in fertility in Tamil Nadu and to identify the socio-economic, cultural, and institutional factors responsible for it."[23]

In her analysis of the political and social background of Tamil Nadu, it is unfortunate that the author has uncritically accepted the propaganda unleashed by M/s.Antony and Co., regarding Periyar's positive influence on various retrograde social practices and beliefs linked largely to the caste system. To admire Periyar for then having zealously advocated pro-women reforms is one thing; but from there to jump to the conclusion that "His [i.e. Periyar's] ideas have undoubtedly had a far- reaching impact on social and political developments in the State",[24] and that the political parties subsequently at the helm of affairs in Tamil nadu are "symbolic of Dravidian culture",[25] is neither methodologically tenable, theoretically sound or even empirically founded.

In attempting to establish the linkage between fertility and the level of economic and social development, the author notes that, "the challenge in explaining fertility decline in Tamil Nadu arises not from denying the link between development in Tamil Nadu and fertility there, but from recognising that a large majority of the population was excluded from the benefits of economic development and remained in poverty even as it continued to benefit from the social developmental changes" (emphasis as in the original).[26] A specific combination of continuing absolute deprivation, but an increasing sense of relative deprivation and rising but unfulfilled aspirations, according to the author, has led to reductions in fertility in Tamil Nadu even among the majority whose economic welfare was not significantly improved by development.

In the discussion on the official family planning programme, the author, while acknowledging that the programme has been critical to the spread of contraception, however finds that the most common method of family limitation has been sterilization. Among sterilizations, the share of tubectomies has increased substantially with younger women with fewer children. Simultaneously the author finds that female dependent contraception, though still very limited is increasing.[27]

Despite the above findings the author contends, that, "these statistics undoubtedly reveal the continuing success of the family planning program in Tamil Nadu"[28] (emphasis added). She does, however, realize that the statistics raise important questions concerning the changing role of women in the family planning programme, namely, "are there pressures forcing women to undergo tubectomies at a relatively young age, or are they accepting sterilization of their own free will? Can there be "free will" in the acceptance of sterilization if there are no alternatives to choose from? These and associated questions raise fundamental issues about the long term reproductive health and reproductive freedom of men and women in a family planning environment involving limited choice and even coercion."[29]

It is intriguing, how, despite an elaborate discussion which attempts to forge a link between fertility, womens status and kinship structures, the author is not able to problematize and/or weave in her adverse empirical findings (for women) on the family planning front to the existing notions of 'high cultural status of women' in Tamil Nadu.

Following Dyson and Moore,[30] it has become almost axiomatic to argue that the observed North-South dichotomy in fertility patterns in India has a lot to do with the dichotomy in kinship patterns between the north and south, which in turn bestow different degrees and levels of autonomy on women. It is argued that the kinship structure in Tamil Nadu - characterized by general village endogamy, cross-cousin marriages generally, where affinity is as important as descent in social, political and economic cooperation, where women sometimes inherit property - is conducive to greater autonomy for women and therefore lower fertility rates.[31] "Autonomy" according to Dyson and Moore, "indicates

the ability - technical, social and psychological - to obtain information and to use it as the basis for making decisions about one's private concerns and those of one's intimates.--- [Thus] equality of autonomy between the sexes in the present sense implies equal decision making ability with regard to personal affairs."[32]

If we start with the assumption that improvements in status do not necessarily lead to increase in autonomy in the sense in which Dyson and Moore define it above, then, understanding of the power relations between men and women is essential if women's capability to participate in decisions affecting reproduction is to be enhanced. Further, reproductive decision-making while very much a personal concern of the couple concerned, is also significantly influenced by the social location of the women in particular, her access to independent information and support structures and the degree of physical mobility that she can enjoy/claim. Beyond a point, the impact of education and work on reproduction, as also the specific relationship between patriarchy and fertility need to be empirically tested. This is imperative if we have to go beyond an instrumental treatment of women's education and employment to really substantiate the concepts of women's autonomy and empowerment and how these impact on reproduction.

IV

In much of the literature discussed above, there is hardly any space to locate and analyse the differentiated fertility patterns obtaining among diverse socio-economic subpopulations making up the state of Tamil Nadu. This, in our view, has a lot to do with the nature of concerns engaging much of social science, particularly, demographic research; these tend to concentrate more on the search for context-free general laws, very often expressed in the form of mathematical functions that can then be applied universally. Such an approach cannot capture micro-level paradoxical outcomes of policies enacted at the macro level. Johansson refers to the need to look for the role of 'implicit' policy in such a context, where 'implicit' policy includes the role played by all forms of state activity whether or not such activity was intended by the government to change fertility patterns, let alone bring about a specific form of change.[33] The importance of such an approach lies in the fact that it can capture the reactions of sets of individuals belonging to various subpopulations in specifically contextualized terms. To quote Johansson,

> In a contextualised analysis, the same determinant (for example, state policy X) can be very influential among the subpopulation of couples in context A, while having no effect whatsoever on the subpopulation in context B, or even the opposite effect on the subpopulation in context C. The differential impact of policy in various contexts can occur even when all three subpopulations supposedly share the same geographical space (a country or town) and time period (for example, the late nineteenth century). Therefore measuring and statistically comparing the effects of the same policy across a large number of subpopulations, which by definition do not live in the same context (even if they live in the same nation, province, country, town or parish), is not a meaningful empirical activity. On the other hand, similar contexts (which foster the same interpretation of, and response to policy for decision making purposes among the members of a subpopulation) can occur among subpopulations that are widely separated in space and time.[34]

We hope to (ultimately) contextualise in Johanssonian terms the paradoxical (fertility) outcomes discernible within Tamil Nadu. A larger question raised by this exercise (the examination of which however lies outside the scope of this paper) is, what should constitute the unit of analysis. For demographers the overriding success indicator of population policy is its impact on the level of fertility whatever be the characteristics and nature of the area/people on whom the policy is administered. Under such circumstances the unit of analysis becomes a matter of convenience and not an issue for discussion or debate. The application of the Johanssonian framework, however, necessitates identification and isolation of subpopulations within a geographical space even to begin the process

numbers than women, the fluctuations in proportions among women workers between the age-groups 20-24 to 40-49 are only marginal.

f) In urban Periyar, the dominant activity categories for women workers are 'Manufacturing, Processing, Service and Repairs' and 'Agricultural Labour'. Within the 'Manufacturing...' category, those employed under the head 'Other than Household Industry' are more than those under the head 'Household Industry'. Besides, the former show the same characteristics as we saw in the case of Kanyakumari, namely there are substantial proportions of women working upto the age-group 25-29; thereafter there is a drastic fall in members in subsequent age-groups. While under the category 'Household Industry' the peak employment age-group for women is 15-19, the decline in numbers is not as dramatic as in the 'Other than Household' category. In the case of Periyar, the lack of clarity regarding the existence and direction of the relationship between women's work and demographic behaviour may be due "not only to the nature of the employment and women's broader circumstances, but also to methodological inconsistency and simplistic analytic approaches. Available evidence is insufficient to determine whether women who enter the labour force bear fewer children than others or whether women with fewer children tend to have higher levels of labour force participation."[38]

6) Kanyakumari not only has the highest percentage of literate females in the state among rural as well as urban population, it also has the least percentage of child workers among its total child population unlike Periyar and the rest of the state. (Tables 8, 9, 10) Further, the educational level of the women in Kanyakumari is also above that obtaining for the rest of the state and way above what one finds for Periyar. For those interested in establishing connections between literacy and fertility, Periyar is an interesting conundrum; the rural areas of Periyar where female literacy levels are far below the urban literacy rates are precisely the areas where fertility rates are below those for urban areas.

What can one conclude about the demographic behaviour of Periyar and Kanyakumari from the above sets of data, particularly as regards the impacts of literacy levels and female work participation rates on reproductive outcomes? Several empirical investigations (even for India, as Sen puts it) have observed and confirmed the statistical relations between women's education and women's opportunity to earn an outside income on the one hand, and lower fertility rates on the other. Referring to a forthcoming statistical contribution using extensive district level data,[39] Sen points out that the only variables that have a statistically significant effect on fertility are female literacy and female labour-force participation. He therefore concludes that "the importance of women's agency emerges forcefully from this analysis, especially in comparison with the weaker effects of variables relating to general economic progress."[40]

To posit the paradoxical findings for Periyar and Kanyakumari against studies that provide evidence of a strong correlation between women's educational level and work participation rates, and fertility, is definitely not intended to question the role of school education or increasing outside employment for females as a force for social change.[41] On the contrary, it is aimed at stressing the need to avoid arriving at instant policy conclusions from mere statistical exercises however significant they may be. A statistical correlation is only a first step; without a substantive indepth examination to determine exactly how and to what extent variables such as education, employment, kinship structures, marriage practices, property rights etc. influence women's autonomy (as defined by Dyson and Moore) and/or fertility rates, one could have any number of policy enactments (including those to enhance women's status) with the ground level reality responding more to Johansson's implicit policy changes rather than to the government's explicit fertility reduction programmes.

V

Putting together the scattered bits of oral information that we have been able to collect on Periyar, we find that Periyar is part of a region which is not only agriculturally prosperous, but, one which in the last few decades has seen the emergence of some of the fastest growing towns in the state

in Kanyakumari. Again, the percentage of married females in each of the age-groups is almost the same for rural and urban areas in Kanyakumari.

d) For the state as a whole, the percentage of currently married females in rural areas exceeds that in the urban areas only upto the age group 30-34; thereafter the urban percentage exceeds the rural percentage. In Periyar on the contrary, the percentage of currently married females in rural areas is less than the urban figure upto the age-group 35-59 — a complete reversal of the direction obtaining for the state as a whole.

e) There is a drastic fall in ASFR and ASMFR for Periyar and for the State as a whole after the age group 25- 59; for Kanyakumari on the other hand it remains very high almost upto the age-group 35-59. For Periyar, in addition, the rural ASFR and ASMFR are far below the urban rates.

5) The figures for (overall) work participation rates show that in Periyar almost 37 per cent of women are 'workers' in the census sense as compared to only 11 per cent for Kanyakumari. (Table 4) An occupational category-cum-age classification of these data however tell an interesting tale.(Table 5,6,7) Even though overall work participation rates for women are far below the rates for men, an analysis of even this small component of women workers reveals the following pattern:

   a) For Kanyakumari, the proportion of female workers in the age-groups 0-14, 15-19 and 20-24 is significantly higher than the proportion of male workers in these same age-groups. Thereafter, that is from the age group 25-29 onwards, the proportion of male workers exceeds women workers in all subsequent age-groups. This is true for both the urban and rural areas.

   b) Using census industrial categories we note that in Kanyakumari, unlike in the rest of the state or even in Periyar, women workers are visibly concentrated in large numbers in the category "Manufacturing, Processing, Servicing and Repairs". The Census breaks this category further into two parts, namely, the 'Household Industry', and the 'Other than Household 'Industry'. Here again, in contrast to the generally observed phenomenon elsewhere, women workers in Kanyakumari are proportionately more in the 'Other than Household Industry' category than in the 'Household Industry' category. This is true for both urban and rural Kanyakumari.

   c) What is also very striking is that in Kanniyakumari, the peak employment age for this category of 'Manufacturing, Processing, Servicing and Repairs' happens to be the age group 15-19. There is a slight fall in the level of employment in the age group 20-24 but it is still quite substantial. There occurs a dramatic fall in the proportions employed in the age group 25-29, and in the subsequent age groups the numbers of women workers in this industrial category do not reach their earlier proportions.

   d) While causality still needs to be empirically established, juxtaposing the above data with that relating to the percentage of currently married women in the different age-groups for Kanyakumari will caution those who read too much progress into the phenomenon of rising age at marriage for females. In Kanyakumari we saw that, less than 5 per cent of the females in the age group 15-19 are married, and that, it is only from the age-group 25-29 onwards that one finds a substantial percentage of females married. Whether the nature of available employment and/or marriage practices pressurizes families to send young adolescent girls for such work before getting them married needs to be concretely established.

   e) In Periyar district the rural and urban data on female workers by age and employment category show different patterns. In the rural areas the two dominant census categories of work employing large number of women are 'agricultural labour' and 'cultivator'. The proportions of women employed in these two categories in the age-groups 0-14, 15-19 are higher than the proportions of male workers in the same age groups in the same categories; however, while in the subsequent age groups men are proportionately more in

In a field-based study of factors contributing to fertility transition in Tamil Nadu, Sundari Ravindran has collected very telling information on the 'successful' family planning programme of Tamil Nadu. To quote Ravindran:

> For the majority, family planning is synonymous with 'female sterilisation'. Information on how any of the methods work is practically unknown even among those who have adopted a method. And most important of all, the family planning programme's pre-occupation with promoting female sterilisation (and more recently, other female methods of contraception) may have only further reinforced and even considerably strengthened the notion that fertility control is exclusively a 'female concern'... Because women do not adopt spacing for fear of negative side effects, it is assumed that there is no option but for women to resort to abortion in order not to have an unwanted birth. Practice of contraception by men, either the condom or periodic abstinence - features nowhere in their realm of options![44]

Unravelling the processes by which a couple arrives at answers to the following questions would itself reveal whether women feel coerced or not to behave and act in particular ways: whether or not to have a child and, if so, when; whether to terminate a pregnancy because it is unwanted or because the foetus belongs to a particular sex; what form of contraception to practice, etc. Thus, coercion defined broadly, would capture the interpersonal power relations that affect sexual and reproductive outcomes.

catering to the export market. There is severe competition for labour from both the towns and the villages; the towns in addition attract quite a large number of young female labour force. The fast changing nature of the economy and employment pattern of the region has led to changes in the agrarian structure of the region, including in the relationships that previously obtained between the landholding classes and the tenant farmers. How these changes have combined to create conditions for increasing female work participation rates but not literacy levels is as intriguing as the questions raised by the Kanyakumari data, namely, contrary to expectations, why do widespread female literacy and delayed marriage, not result in increasing work participation levels for women? (As of now we have very little information on the overall nature of the economy of Kanyakumari). Additionally, we need to have some idea of the (changing) community composition, kinship structures, marriage practices, inheritance patterns, role of religion, in both the districts to be able to assess how all these simultaneously impact in bringing about high fertility rates in the one and low fertility rates in the other district.

The assertion that women in Tamil Nadu have relatively more autonomy and are not subject to coercive family planning programmes (and therefore the fertility rates in Tamil Nadu are as low as they are) is highly problematic. Whether it is the autonomy of Periyar women that is responsible for their low rates (and vice versa for Kanyakumari) is difficult to ascertain from the secondary data presented here. While high fertility rates resulting from lack of autonomy is understandable and plausible, low fertility rates need not necessarily imply presence of autonomy for women.

The fact of more autonomy for women in the southern states, including Tamil Nadu, is generally based on data pertaining to female literacy levels, work participation rates, age at marriage, contraceptive prevalence rates, female-friendly kinship structures etc. Another set of data that is not simultaneously looked into is the marital status of the population. A quick look at the census data on this clearly show that the model states of Kerala and Tamil Nadu have relatively more percentage of women who are widowed, and, divorced/separated.(Table 11) In addition, according to the NSS data,[42] these states have more number of female headed households, when compared to the female-unfriendly states of the north. Whether divorce/separation constitutes enhanced autonomy for women (in that it enables them to opt out of oppressive mariage structures) again needs to be concretely established. Further, when the data on female-headed households is viewed in the context of the growing incidence of feminization of poverty in the country as a whole, it does raise questions about the circumstances and the conditions that ultimately make a couple arrive at the decision - either to have or not to have a child.

The issue of coercion needs to be dealt with at various levels. The fact that Tamil Nadu has not seen Emergency type coercive practices where groups of people particularly in the rural areas were herded into family planning camps and sterilized (largely vasectomised), cannot be the sole reason to come to the opposite conclusion that cooperation is the hallmark of the 'success' of the family planning programmes in Tamil Nadu. Family planning programmes are based on assumptions about sexuality and gender that must be identified and challenged.[43]

In the first place we need to document very systematically what goes on in government hospitals, and what is done by government and govt-recognized private doctors, in the name of family planning. Our very limited interaction with NGOs active in this field in Tamil Nadu reveal that a large number of abortions take place outside the formal system since very often the state through its family planning outlets tries to impose its own morality on women seeking abortions.

While the north has seen a change-over from vasectomy to tubectomy in the post Emergency period, in Tamil Nadu this change over has taken place without the state having experienced the Emergency-type of explicit organized violence on the family planning front. The much touted 'success' of the family planning programme of Tamil Nadu is anchored largely on the increasing number of tubectomies performed as part of the family planning programme. This, to us, constitutes a form of state violence on women.

Table 2

(Unadjusted) Fertility Rates by Districts in Tamil Nadu

India/State/District	Unadjusted				
	CBR	TFR	TMFR	GFR	GMFR
India	25.67	3.6	4.3	112	139
Tamilnadu	24.37	3.0	4.2	94	129
Madras	22.75	2.5	3.8	85	121
Chengleput	26.11	3.2	4.4	103	138
North Arcot	27.74	3.6	4.6	112	146
South Arcot	26.73	3.4	4.3	116	136
Dharmapuri	27.95	3.7	4.6	116	145
Salem	20.71	2.4	3.4	79	103
Periyar	18.85	2.2	3.2	70	93
Coimbatore	19.77	2.3	3.5	74	104
Nilgiris	22.79	2.5	3.9	84	124
Madurai	22.67	2.8	4.0	88	122
Tiruchirapalli	22.16	2.7	3.8	84	115
Thanjavur	23.46	2.9	4.0	89	122
Pudukottai	27.87	3.6	4.9	109	149
Ramanathapuram	27.11	3.5	4.8	104	146
Tirunelveli	27.38*	3.6	5.1	105	154
Kanyakumari	25.57	3.3	5.4	98	163

Source: Census of India, 1981, Occasional Paper No.13 of 1988. Fertility in India An Analysis of 1981 Census data, Office of the Registrar General, India, New Delhi, p.118.

Table 1

Female-Male Ratio: By Location

(Tamil Nadu, Periyar, Kanyakumari)

	1981		1991	
	Rural	Urban	Rural	Urban
Tamilnadu	987	956	981	960
Periyar	960	941	969	952
Kanyakumari	983	995	989	1001

Source: Computed from Census of India, 1991, Series-23, Tamil Nadu. Primary Census abstract for General Population, Part II - B (i), Director of Census Operations, Tamil Nadu.

Table 4

Districts arranged in descending order of their Female work participation rate, 1991

Rank in 1991	District	Female work participation rate		Rank in 1981
		1991	1981	
TAMIL NADU		29.89	26.52	..
1.	Kamarajar	42.18	41.69	1
2.	Tirunelveli - Kattabomman	40.22	33.91	4
3.	Periyar	38.66	36.51	2
4.	Dindigul-Anna	38.32	34.44	3
5.	Pasumpon Muthuramalinga Thevar	37.66	25.10	16
6.	Dharmapuri	37.39	29.20	8
7.	Salem	36.69	33.34	5
8.	Ramanathapuram	35.87	28.66	10
9.	Tiruvannamalai-Sambuvarayar	35.82	33.34	5
10.	Tiruchirapalli	34.81	29.41	7
11.	Pudukottai	33.00	26.49	15
12.	South Arcot	31.81	26.75	14
13.	Madurai	31.77	28.85	9
14.	Chidambaranar	30.05	28.08	12
15.	Nilgiri	29.75	26.81	13
16.	Coimbatore	26.91	28.19	11
17.	North Arcot-Ambedkar	26.09	23.06	17
18.	Thanjavur	24.87	21.63	18
19.	Chengalpattu - MGR	21.77	20.68	19
20.	Kanniyakumari	11.03	9.34	20
21.	Madras	8.44	6.80	21

Source: Census of India, 1991, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II - B (i), Directorate of Census Operations, Tamil Nadu, August 1993, p.44

Table 3

Fertility Rates: By Age and Location
Tamil Nadu, Kanyakumari and Periyar

	Total (R + U)			Rural			Urban		
	TN	KK	PER	TN	KK	PER	TN	KK	PER
CBR	24.18	25.38	18.73	24.57	25.73	17.59	23.37	23.67	22.74
GFR	94.25	98.68	70.12	96.47	100.77	65.86	89.83	89.06	85.23
TFR	3.00	3.29	2.18	3.14	3.37	2.10	2.71	2.94	2.92
GMFR	128.98	163.12	94.01	129.75	167.08	88.18	127.38	145.16	114.80
Age Group	**Percentage of currently married females**								
15-19	22.81	4.92	20.54	24.59	4.71	19.44	20.24	5.88	24.08
20-24	75.49	44.61	76.44	78.91	44.39	76.11	69.58	45.62	77.42
25-29	92.19	83.31	92.96	93.24	83.35	92.87	90.25	83.12	93.27
30-34	92.92	92.08	92.64	92.91	91.93	92.39	92.93	92.76	93.54
35-39	90.89	91.15	91.15	90.61	90.91	90.99	91.52	92.24	91.80
40-44	83.96	86.55	86.03	83.70	86.29	86.07	84.58	87.68	85.83
45-59	77.22	81.76	81.48	77.19	81.68	82.36	77.30	82.11	77.60
	Age-specific Fertility Rates (ASFR)								
15-19	42.22	9.35	33.05	43.79	9.01	29.91	39.33	10.94	43.16
20-24	184.63	133.06	171.53	190.36	132.58	162.80	174.71	135.24	197.05
25-29	175.37	226.72	130.16	180.64	232.15	125.70	165.69	201.02	144.32
30-34	109.68	151.01	60.85	116.96	156.33	60.75	94.77	126.76	61.21
35-39	59.44	94.85	25.78	64.56	99.16	25.74	47.91	74.93	25.95
40-44	21.56	34.89	9.74	24.35	35.77	10.52	14.99	31.05	6.22
45-59	7.02	8.25	5.00	7.84	8.45	4.94	5.06	7.30	5.26
	Age-specific Marital Fertility Rates (ASMFR)								
15-19	185.13	190.12	160.93	180.99	191.24	153.88	194.29	185.96	179.26
20-24	244.57	298.27	224.39	241.24	298.67	213.91	251.09	296.48	254.53
25-29	190.23	272.14	140.01	193.73	278.51	135.36	183.59	241.85	154.74
30-34	118.03	164.00	65.69	125.88	170.06	65.76	101.98	136.66	65.43
35-39	65.39	104.06	28.28	71.25	109.07	28.29	52.35	81.24	28.26
40-44	25.67	40.32	11.32	29.09	41.45	12.22	17.72	35.41	7.25
45-59	9.09	10.08	6.13	10.15	10.35	6.00	6.55	8.89	6.78

Source: Computed from : Census of India, 1981, Series-20, Tamil Nadu, Fertility Tables, Part VI A-B, Director of Census Operations Tamil Nadu.

Table 6

Location-cum-agewise classification of important industry group for females

KANYAKUMARI

	Age, Group	Total	Workers		Agricultural, Labourers		Manufg, Procs, Services & Repairs				Other Services	
							Household Industry		OtherthanHousehold Industry			
		Male	Female		Male	Female	Male	Female	Male	Female	Male	Female
Total	Total	347327	65997		134675	19287	8834	12669	24283	12875	32403	13237
	0 - 14	1.53	4.64		2.06	3.51	1.90	5.81	3.05	10.79	0.44	1.01
	15 - 19	8.42	17.39		11.18	12.21	7.38	27.66	10.46	35.95	1.85	3.22
	20 - 24	12.25	14.83		14.03	12.46	10.45	18.72	14.01	21.86	5.65	10.95
	25 - 29	13.81	12.07		13.98	12.35	11.33	9.99	15.29	3.44	11.68	17.52
	30 - 34	11.90	10.77		10.66	9.21	11.66	7.88	11.82	5.78	16.49	20.28
	35 - 39	12.04	11.32		10.83	12.37	10.09	9.27	12.33	5.20	18.45	18.40
	40 - 49	19.26	15.99		17.52	18.64	19.65	12.31	17.02	7.12	28.48	20.11
	50 - 59	12.62	8.39		11.87	11.64	16.06	5.58	10.57	3.60	13.08	6.81
	60 +	8.16	4.60		7.61	7.62	11.46	2.82	5.46	1.24	3.87	1.71
Rural	Total	288252	52475		130467	18582	6968	9286	14040	9058	22208	8756
	0 - 14	1.51	4.82		2.03	3.57	2.25	6.83	2.93	12.10	0.32	0.34
	15 - 19	8.62	17.81		11.18	12.29	7.75	29.44	9.74	39.55	1.85	2.66
	20 - 24	12.43	14.89		14.05	12.58	10.98	19.53	14.29	22.49	5.44	11.09
	25 - 29	13.88	12.16		14.04	12.61	11.67	9.89	16.23	8.05	12.37	18.81
	30 - 34	11.70	10.46		10.67	9.44	11.88	7.43	12.24	4.10	16.95	21.90
	35 - 39	11.91	11.17		10.80	12.52	10.02	8.25	12.93	4.44	18.51	18.99
	40 - 49	18.93	15.46		17.52	18.04	18.84	11.26	17.21	5.14	27.65	18.88
	50 - 59	12.51	8.43		11.82	11.59	15.69	4.63	9.55	3.00	12.68	6.16
	60 +	8.50	4.80		7.58	7.37	10.88	2.75	4.88	1.10	4.20	1.28
Urban	Total	59075	13522		4208	705	1865	3384	10243	3817	10196	4481
	0 - 14	1.64	3.95		2.83	1.99	0.59	3.01	3.20	7.68	0.71	2.32
	15 - 19	7.45	15.77		9.60	9.93	6.01	22.72	11.43	27.43	1.86	4.31
	20 - 24	11.34	14.60		13.28	9.36	8.47	16.49	13.65	20.38	6.09	10.64
	25 - 29	13.45	11.73		12.19	5.53	10.08	10.25	13.99	9.41	10.17	15.00
	30 - 34	12.89	11.95		10.50	3.26	10.83	9.07	11.25	9.77	15.50	17.32
	35 - 39	12.66	11.89		11.86	8.23	10.35	12.06	11.51	6.97	18.31	17.25
	40 - 49	20.87	18.04		17.68	34.61	22.63	15.19	16.75	11.82	30.28	22.54
	50 - 59	13.14	8.23		13.45	13.05	17.48	8.19	11.97	5.00	13.94	8.08
	60 +	6.54	3.83		14.33	14.33	13.62	3.00	6.26	1.57	3.16	2.57

Source: Same as Table 5

Table 5

Distribution of Female Workers by Census Occupational Category:Descending Order

PERIYAR

Rural			Urban		
Occupational Category	Total Workers	Percentage to total workers	Occupational category	Total workers	Percentage to total workers
Total (all categories)	330581	...	Total (all categories)	38526	...
Agricultural Labourers	202941	61.39	Manf. Proc. Ser & Reps.	12921	33.54
Cultivators	80319	24.30	Agricultural Labourers	10665	27.68
Manf.Proc.Ser. & Reps.	30056	9.09	Other Services	6367	16.53
Other Services	7323	2.22	Trade and Commerce	3940	10.23
Trade and Commerce	4373	1.32	Construction	2128	5.52
Construction	3256	0.98	Cultivators	1339	3.48
Livestock	2163	0.65	Transport	853	2.21
Transport	145	0.04	Livestock	313	0.81
Mining	0	0.00	Mining	0	0.00

KANYAKUMARI

Rural			Urban		
Occupational Category	Total Workers	Percentage to total workers	Occupational category	Total workers	Percentage to total workers
Total (all categories)	52475	...	Total (all categories)	13522	...
Agricultural Labourers	18582	35.41	Manf, Proc, Ser, & Reps.	7201	53.26
Manf, Proc, Ser, & Reps.	18344	34.96	Other Services	4481	33.14
Other Services	8756	16.69	Trade and Commerce	829	6.13
Cultivators	2836	5.40	Agricultural Labourers	705	5.21
Trade and Commerce	2364	4.51	Transport	137	1.01
Livestock	1124	2.14	Cultivators	111	0.82
Transport	176	0.34	Construction	30	0.22
Mining	147	0.28	Livestock	29	0.21
Construction	137	0.26	Mining	0	0.00

Source: Computed from Census of India, 1981, Series - 20, Tamil nadu General Economic Tables, Part III-A and B (i), Tables B-3, and B-7.

Table 8

Districts arranged in the order of literacy ranking in 1991 Cenus and comparison with 1981 Census (literacy rates have been calculated on the population aged 7 years and above)

Literacy rank in 1991	State/District	Literacy rate 1991	Literacy rate 1981	Increase of literacy rate 1981-91
(1)	(2)	(3)	(4)	(5)
	TAMIL NADU	62.66	54.39	8.27
1.	Kanniyakumari	82.06	73.80	8.26
2.	Madras	81.60	78.21	3.39
3.	Chidambaranar	73.02	NA	...
4.	Nilgiri	71.70	65.22	6.48
5.	Madurai	66.41	NA	..
6.	Chengalpattu-MGR	66.38	56.14	10.24
7.	Coimbatore	66.35	59.97	6.38
8.	Thanjavur	66.02	58.33	7.69
9.	Tirunelveli Kattabomman	65.58	NA	..
10.	Pasumpon Muthuramalinga Thevar	63.04	NA	..
11.	Kamarajar	62.91	NA	..
12.	Ramanathapuram	61.59	NA	..
13.	Tiruchirapalli	61.22	52.68	8.54
14.	North Arcot - Ambedkar	60.87	NA	..
15.	Pudukottai	57.63	46.02	11.61
16.	Dindigul-Anna	56.68	NA	..
17.	Periyar	53.80	44.86	8.94
18.	Salem	53.31	44.67	8.64
19.	Tiruvannamalai-Samb uvarayar	53.07	NA	..
20.	South Arcot	52.86	43.85	..
21.	Dharmapuri	46.02	34.43	11.59

NA : Not available

Source: Census of India, 1991, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II - B (i), Directorate of Census Operations, Tamil Nadu, August 1993, p.14.

Table 7

Location-cum-agewise classification of important industry group for females

PERIYAR

	Age Group	Total	Workers	Cultivators		Agricultural Labourers		Manufg, Procs, Services & Repairs				Other Services	
								Household Industry		OtherthanHousehol dIndustry			
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	Total	701992	369107	217130	81659	201520	213606	42526	22149	84400	20828	46572	13690
	0 - 14	4.50	8.16	2.13	4.03	8.78	9.63	4.14	8.61	4.96	11.86	1.19	3.28
	15 - 19	10.71	13.99	7.81	9.67	15.47	15.31	11.79	17.60	13.94	22.47	3.29	6.09
	20 - 24	12.14	11.66	10.70	10.17	12.44	12.00	14.39	13.37	16.00	14.73	5.97	10.26
	25 - 29	12.16	11.61	10.28	11.14	11.16	11.52	12.31	12.11	14.36	11.96	12.18	14.72
	30 - 34	10.71	10.36	9.73	10.52	8.85	10.15	10.23	9.75	11.95	9.33	16.58	15.79
	35 - 39	11.03	11.87	10.42	12.58	9.75	11.35	10.79	11.61	11.46	10.72	16.72	16.68
	40 - 49	18.40	17.06	19.77	20.76	16.57	16.03	17.60	15.19	15.27	11.67	25.55	20.01
	50 - 59	12.07	10.04	15.67	13.73	10.33	9.27	11.53	7.43	8.15	5.06	13.15	9.81
	60 +	8.27	5.76	13.50	7.41	6.64	4.75	7.22	4.33	3.90	2.19	5.39	3.35
Rural	Total	550634	330581	210897	80319	191795	202941	37221	19032	40665	11024	27563	7323
	0 - 14	4.8	48.21	2.15	4.03	8.88	9.71	4.28	8.56	4.52	11.16	1.46	3.32
	15 - 19	11.11	13.97	7.89	9.72	15.55	15.27	11.94	17.91	14.20	22.66	3.86	6.98
	20 - 24	11.96	11.57	10.75	10.19	12.49	12.01	14.55	13.45	15.50	14.07	6.50	10.06
	25 - 29	11.40	11.49	10.28	11.21	11.14	11.53	12.25	11.89	13.76	11.71	11.08	13.19
	30 - 34	10.01	10.26	9.76	10.55	8.85	10.11	10.18	9.82	11.44	8.93	15.11	15.36
	35 - 39	10.76	11.77	10.39	12.60	9.72	11.50	10.94	11.91	1.86	11.35	17.00	16.51
	40 - 49	18.44	17.17	19.76	20.72	16.52	16.02	17.39	15.37	15.94	12.74	25.45	20.31
	50 - 59	12.46	10.17	15.67	13.65	10.27	9.25	11.44	7.19	8.43	5.02	13.17	10.51
	60 +	9.03	5.39	13.35	7.34	6.58	4.80	7.05	4.41	4.35	2.38	6.37	3.76
Urban	Total	141358	38526	6233	1339	9726	10665	5305	3117	40745	9804	19009	6367
	0 - 14	3.16	7.66	1.41	3.66	6.74	8.15	3.13	8.89	5.43	12.65	0.79	3.25
	15 - 19	9.13	14.16	5.37	6.50	13.97	16.02	10.74	15.72	13.66	22.26	2.45	5.07
	20 - 24	12.83	12.44	9.00	8.96	11.56	11.72	13.40	12.86	16.54	15.49	5.21	10.49
	25 - 29	15.19	12.63	10.24	7.39	11.71	11.28	12.78	13.47	15.01	12.26	13.77	16.48
	30 - 34	13.53	11.24	8.92	9.11	8.89	10.00	10.57	9.34	12.49	9.78	18.70	16.27
	35 - 39	12.08	12.72	11.37	11.13	10.27	12.30	9.76	12.96	11.04	10.02	16.30	16.88
	40 - 49	18.27	16.09	19.89	23.23	17.59	16.22	19.08	14.05	14.56	10.47	25.68	19.66
	50 - 59	10.53	8.90	15.42	18.52	11.48	9.68	12.16	8.85	7.85	5.11	13.11	9.02
	60 +	5.29	4.13	18.55	11.43	7.75	3.73	8.39	3.88	3.42	1.99	3.98	2.87

Source : Same as Table 5

Table 10

School Attendance of Children

(Age 5-14 years)

	Tamil Nadu		Periyar		Kanyakumari	
	Males	Females	Males	Females	Males	Females
	% of children attending school					
(R+U)	64.69	49.65	57.62	42.33	77.48	73.39
Rural	59.75	41.20	53.77	36.39	76.63	72.28
Urban	74.83	67.02	70.35	62.04	81.74	78.77
	% of children not attending school					
(R+U)	35.31	50.35	42.38	57.67	22.52	26.61
Rural	40.25	58.80	46.23	63.61	23.37	27.72
Urban	25.17	32.98	29.65	37.96	18.26	21.23
	% of child workers to total child population					
(R+U)	8.87	7.99	14.25	14.04	3.10	1.84
Rural	10.78	10.40	15.93	16.47	3.05	1.83
Urban	4.96	3.03	8.68	5.95	3.36	1.89
	% of Non-workers not attending school to total child population					
(R+U)	27.00	42.00	28.00	44.00	19.00	25.00
Rural	30.00	48.00	30.00	47.00	20.00	26.00
Urban	20.00	30.00	2.00	32.00	15.00	19.00

Source: Census of India, 1981 Series 20, Tamil Nadu, Social and Cultural Tables. Part IV-A, Table C-4, Director of Census Operations, Tamil Nadu.

Table 9

Literacy Rates (for population aged 7 and above) in 1991

Tamil Nadu, Periyar, Kanniyakumari

	Among the total population			Among the rural population			Among the urban population		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Tamil Nadu	62.66	73.75	51.33	54.59	67.18	41.84	77.99	86.06	69.61
Periyar	53.80	65.54	41.58	47.56	60.00	34.65	73.06	82.57	63.08
Kanniyakumari	82.06	85.70	78.39	80.76	84.56	76.93	88.36	91.29	85.44

Source: Census of India, 1991, Series-23, Tamil Nadu, Primary Census Abstract for General Population, Part II-B(i), Statement 5, Director of Census Operations, Tamil Nadu, p.12.

Notes and References

1. Bose, Ashish, "TNs successful demographic transition", Financial Express, Madras, January 4, 1994.
2. Sen A. "Population Policy: Authoritarianism Versus Cooperation", The John and Catherine T.MacArthur Foundation Lecture Series On Population Issues, August 17, 1995, New Delhi, (mimeo)
3. Antony, T.V. "The Family Planning Programme - Lessons from Tamil Nadu's Experience", The Indian Journal of Social Science, Vol.5, No.3, 1992 p322.
4. Sen, A. "Population Policy:...." op.cit, p.17
5. Ravindran, Sundari, T.K. "Women and the Politics of Population and Development in India", Legal Perspectives, Documentation File No.31, Madras, p.7
6. Savitri, R. "Fertility Rate Decline in Tamil Nadu : Some Issues", Economic and Political Weekly, Vol.XXIX, No.29, July 16, 1994, pp 1850-1852.
7. In this context it needs to be stated that it is largely the rise of feminist scholarship that has given a new life and vitality to demographic research besides forcing a reconsideration of the role of state policy in fertility change. For a useful disucssion on fertility change from a gender perspective, see, Nancy Folbre, "Of Patriarchy Born" Feminist Studies, Vol.9, No.2, Summer 1983, pp261-284.
8. The Ministry of Health and Family Welfare set up (by an order dated 19th July 1993) an Expert Group chaired by Dr.M.S.Swaminathan for preparing a draft National Policy on Population. The Expert Group submitted its draft to the above Ministry on May 21, 1994.
9. See in this context the following references:
   (a) Demeny, Paul, "Social Science and Population Policy," Population and Development Review, Vol.14, No.3, September 1988, pp451-79.
   (b) Hodgson, Dennis, "Orthodoxy: and Revisionism in American Demography," Population and Development Review, Vol.14, No.4, December 1988, pp541-69.
   (c) Amalric, Franck and Banuri, Tariq. "Population :malady or symptom", Third World Quarterly, Vol.15, No.4, 1994. pp691-705.
10. For an elaborate discussion on approaches to population policy, see S.Ryan Johansson "Implicit Policy and Fertility During Development", Population and Development Review Vol.17, No.3, September 1991 pp 377-441.
11. For an elaboration, see, Almaric, Franck and Banuri, Tariq, "Population:malady or Symptom", op.cit.
12. Ibid., p.701.
13. Ibid., p.701-702.
14. Refer in this context, Dennis Hodgson, "Demography as Social Science and Policy", Population and Development Review, Vol.9, No.1, March 1983, pp1-34, and the references cited in note (9) above.
15. Almaric, Franck and Banuri, Tariq, op.cit., p701.
16. This point and the paragraph immediately following below have been taken from V.Geeta and Padmini Swaminathan, "The Politics of Population and Developmnt in India", Economic and Political Weekly, September 17, 1994.
17. Demeny, Paul, Social Science and Population Policy, op.cit., p18.
18. Antony, T.V. "The Family Planning Programme - Lessons from Tamil Nadu", op.cit., p.320.
19. Antony, T.V. "Wanted - for the Family Planning Programme - A Positive Image". Note dated March 15, 1994, Madras (mimeo).

Table 11

Marital Status : Kerala, Tamil Nadu vis-a-vis India

Total/ Rural/ Urban	Martial Status							
	Never Married		Married		Widowed		Divorced/Separated	
	Male	Female	Male	Female	Male	Female	Male	Female
	As % of total male popn.	as % of total female popn.	As % of total male popn.	as % of total female popn.	As % of total male popn.	as % of total female popn.	As % of total male popn.	as % of total female popn.
India								
(Rural + Urban)	55.26	45.75	42.05	45.79	2.43	8.01	0.23	0.42
(Rural)	54.73	44.87	42.27	46.45	2.71	8.20	0.26	0.45
(Urban)	56.90	48.70	41.35	43.55	1.56	7.40	0.13	0.32
Kerala								
(Rural + Urban)	61.55	50.85	35.86	38.65	1.14	9.08	0.29	1.39
(Rural)	61.34	50.77	37.15	38.86	1.18	8.86	0.31	1.49
(Urban)	62.44	51.19	36.33	37.71	0.97	10.04	0.22	1.01
Tamil Nadu								
(Rural + Urban)	55.71	45.51	41.76	43.80	2.26	10.00	0.24	0.67
Rural All ages	54.77	44.58	42.33	44.30	2.58	10.35	0.30	0.76
Urban All ages	57.59	47.45	40.63	42.76	1.63	9.28	0.13	0.49

Source: Computed from Table C-1, Part IV-A, Census of India, 1981, Series I, India, Social and Cultural Tables. Office of the Registrar General, India, New Delhi.

44. T.K.Sundari Ravindran, Factors Contributing to Fertility Transition in Tamil Nadu: A Qualitative Investigation. Paper presented at the Silver Jubilee Seminar of the Madras Institute of Development Studies, Madras, April 2-4, 1996, p251.

20. Caldwell, John. C., "The Asian Fertility Revolution: Its Implications for Transition Theories", in Richard Leete and Iqbal Alam (ed.) : The Revolution in Asian Fertility: Dimensions, Causes and Implications, Clarendon Press, Oxford, 1993, pp299-316.

21. Ibid, p.315.

22. Kishor, Sunita "Fertility Decline in Tamil Nadu, India," in Bertil Egero and Mikael Hammarskjold (ed): Understanding Reproductive Change: Kenya, Tamil nadu, Punjab, Costa Rica, PROP, Lund University Press, Sweden, 1994, pp 65-100.

23. Ibid, p68.

24. Ibid, p73.

25. Ibid, p74.

26. Ibid, p83.

27. Ibid, p94.

28. Ibid, p95.

29. Ibid pp94-95.

30. Dyson, T and Moore, M. "On Kinship Structure, Female Autonomy, and Demographic Behaviour in India", Population and Development Review, Vol.9, Number 1, March 1983, pp35- 60.

31. Apart from Sunita Kishor, the female-friendly southern kinship arguments finds its echo in the following article, among others, namely, John Caldwell and Pat Caldwell, "Patriarchy, Gender and Family Discrimination, and the Role of Women", in Lincoln C.Chen, Arthur Kleinman and Norma C.Ware (eds.) Health and Social Change in International Pespective, Harvard Series on Population and International Health, Boston, Massachusetts, 1994, p357.

32. Dyson, T. and Moore, M. "On Kinship Structure.." op.cit., pp45-46.

33. Johansson, Ryan, S. "Implicit Policy and Fertilty During Development", Population and Development Review, Vol.17, No.3, September 1991, pp377-414.

34. Ibid, p381.

35. See Census of India, 1991, Series-23, Tamil Nadu, Primary Census Abstrct for General Population, Part II-B(i), Statement - 4, p.11, Director of Census Operations, Tamil Nadu.

36. Dreze, J and Sen, A: India: Economic Development and Social Opportunity, OUP, Delhi 1995, p.150.

37. Computed from data provided in Census of India, 1991, Series-23, Tamil Nadu, op.cit.

38. Mahmud, S., and Johnston, Anne M. "Women's Status, Empowerment and Reproductive Outcomes", in Gita Sen. et al., (ed) Population Policies Reconsidered: Health, Empowerment and Rights, Harvard Series on Population and International Health, Distributed by Harvard University Press, Boston, Massachusettes, 1994. p.154.

39. Dreze J., et al, "Demographic Outcomes, Economic Development and Women's Agency," Discussion Paper, Centre for Development Economics, Delhi School of Economics, 1995; to be published in Population and Development Review.

40. Sen, A. "Population Policy: Authoritarianism Versus Co- operation", op.cit., p.18.

41. Ibid. Sen is critical of those, who have disputed the observed links between education and outside employment (for women) on fertility.

42. See Sarvekshana, Special Number, September 1990. Results of the Fourth Quinquennial Survey on Employment and Unemployment (All India), NSS 43rd Round, (July 1987- June 1988), NSSO, Dept.of Statistics, Govt.of India, Statement 3, pp.18-19.

43. A very useful article in this context is Ruth Dixon- Mueller, "The Sexuality Connection in Reproductive Health", Studies in Family Planning Vol.24, No.5, Sept./Oct.1993. pp.269-282.

44. T.K.Sundari Ravindran, Factors Contributing to Fertility Transition in Tamil Nadu: A Qualitative Investigation. Paper presented at the Silver Jubilee Seminar of the Madras Institute of Development Studies, Madras, April 2-4, 1996, p251.