

Demographic, Social and Economic Changes in Tharparkar (1988-2006) - An Analysis

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ABSTRACT

This study is firstever in nature and belongs to Tharparkar but the concept is general and can be replicated in mostly rain-fed areas of the world. This study attempts to find out demographic, social and economic changes and its prospects. To achieve mandated task, the study is focussed on: Firstly, to find out the existing trends of demographic changes in the district. Secondly, to identify ever-increasing population and demographic problems and policy implementation gap, and finally, the paper attempts to suggest policy recommendations for sustainable management of demographic problems. Data analysis, findings and recommendations would be beneficial to the policy makers, planners, government, NGOs, and donor agencies for further planning of the development policies. Demographic, social and economic changes are the variables for special analysis. Therefore, an attempt has been made to test the following hypotheses. It was hypothesised that: (i). Higher the population growth rate, lower the affordability power. (ii). Higher the literacy ratio, lower the population growth. (iii). Higher the literacy ratio, higher the living status. (iv). Higher the urbanization, higher the literacy ratio. (v). When the literacy rate increases, the positive development also increases in social sectors. (vi). Population density increases, the income growth rate decreases.

JEL. Classification: J11, R11, O12

Keywords: Rain-fed Areas, Demographic, Social and Economic Changes; Transient and Incoherent Grazing

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1. INTRODUCTION

Actually Thar consists of: (i). Bahawalpur (ii). Judhpur (Indian state) (iii). Some parts of Jesalmer (Indian state) (iv). Obaro and Mirpur Mathelo talukas of district Sukkur (v). Eastern part of Khairpur (vi). Some parts of Khipro and Umerkot talukas and (vii). Present Tharparkar. This study is about present Tharparkar, which consists of Mithi, Diplo, Chachro and Nagarparkar talukas. Thar is a desert region in the southern part of Sindh province in Pakistan (Herani 2002:1).

This aridzone district of Sindh remains one of the country's disadvantaged regions. Indicators of health, education and other determinants of well-being are invariable at the bottom of national scale, sporadic and scanty rain fall, dwindled water resources, transient and incoherent grazing, and reliance on exploitative economy even for mundance needs are the permanent features of Thari livelihood. Except for substance live stock farming, there are strictly limited opportunities for income generation, barring a few occupations, e.g. Handicraft and carpet production that are more beneficial for the middle man than the actual producers. There are viable economic alternatives.

It is common with individuals as well as all the families of that district to migrate to the irrigated area to serve labours on farms or brick kilns and farm harvesting etc., at low wages. Majority of male members usually turn their faces towards cities especially Karachi in order to earn for their livelihood. They are ready to accept any odd job. We can find many tailors from Thar district in Hyderabad and Karachi and other cities. Main occupation of Karachi migrated people is tailoring.

Tharparkar is compounded by difficulties of access and communication, its' economy is characterised by high population growth, inspite of relatively high maternal and infant mortality rates. The hardships are further exacerbated by the migration of communities, decreasing socio-economic opportunities based on traditional practices, and above all, rapid and irrevocable deterioration of environmental resources that retains the very survivals of the population.

Some related literature about Tharparkar is available: like TRDP Evaluation Report by Hassan and Hardy (1993); Herani (2002); Dawn. Local, 19, October 2000; Ratta Rang Koomayal Baar (1999); Thar Drought Presentation (1997 - 1998, 1998 - 1999, 1999 - 2000, 2000 - 2001); Mangi (1996); Silsilevar Thar Magazine; Herani, Rajar and Khaskheli (2007) and different websites¹. Thardeep, Bahn-Beli, and lots of other NGOs are working at Tharparkar and their literature is also available.

¹(<http://www.dawn.com/2000/10/19Local.htm>);(<http://nation.com.pk/5/12/000>); (<http://www.Tharparkar.sdnpk.or/pic5.htm>); (<http://www.dawn.com/2000/07/09/letted.htm>); (<http://www.dawn.com/2000/06/26/nat.htm>); (<http://www.dawn.com/2000/11/01/local.htm>); (<http://www.un.org.pk/drought/Sindhmission.htm>(4-12 June 2000); (<http://www.jang.com.pk/thenews/jan2001-daily/21-01-2001/national/n3.htm>); (http://dosfan.lib.uic.edu/ERC/economics/commercial_guides/Pakistan.htm)

Related literature other than Tharparkar is: Mithal (1976); Somalia (1999); Simmonds (1949); Bhati, Goyal and Daulay (1997) and Social (2001:180-181).

All the above studies, reports, news and websites show that this area needs constant research work to update the information about Thar district for further planning. These facts are kept in mind while writing this study.

The organization of this study is comprised of : Section 2 about methodology, purpose of study, hypothesis, data collection and data analysis; Section 3 is about demographic, social and economic changes; Section 4 is about conclusions and finally Section 5 is about policy implications.

2 METHODOLOGY

2.1 Purpose of Study

This study attempts to find out Tharparkar's demographic, social and economic changes and its prospects. To achieve mandated task, the study is focussed on: Firstly, to find out the existing trends of the demographic changes in the district. Secondly, to identify pressing population and demographic problems and policy implementation gap, finally, the paper attempts to suggest policy recommendation for sustainable management of demographic problems.

2.2 Hypothesis

Demographic, social and economic changes are the variables for the special analysis. Therefore, an attempt has been made to test following hypotheses. It was hypothesised that: (i). Higher the population growth rate, lower the affordability power. (ii). Higher the literacy ratio, lower the population growth. (iii). Higher the literacy ratio, higher the living status. (iv). Higher the urbanization, higher the literacy ratio. (v). When the literacy increases, the positive development also increases in social sectors (vi). Population density increases, income growth rate decreases.

2.3 Data Collection Technique

To achieve the purposes of the study both primary and secondary sources were used. First of all review of available literature was undertaken, which were based on published and unpublished materials including government census reports, articles, research papers, thesis as a sources of information for the study. A systematic review of the electronic database references was also undertaken. Data were also collected from census carried out by Bureau of Statistics from 1951 to 1998.

2.4 Data Analysis

Finally collected data was analysed and presented in the form of tables, maps, graphs and descriptions. This analysis was carried out on the basis of conclusions drawn, and recommendations were made keeping in view the demographic, physical, social and economic changes and natural environment of the district.

3 CHANGES IN THAR BETWEEN 1988-2006

3.1 Demographic Changes

The increase in the total population of Tharparkar between 1981 and 1991 has been worked out as 3.2 percents of Pakistan national average. The population in urban centres is worked out at 4.4 percent, which is the average urban growth rate of the country. Thus the population of Thar has increased from 546000 to 747000 during 1988 to 2006. The population of Urban areas has increased from 25,000 to 39,000. This is major increase and certainly have very pressurizing affect on the desert's economy. Thar's resources during the period under review shows an enormous fall in the cultivated area in Thar since 1982- to 1991.

With the increase of population, the population of livestock is also increasing and it is four million heads in 1993 (TRDP Leaflet). According to figures of 1992, the total population of Thar was 9,10,686, which is approximately 3.2% (per annum) during the last ten years. The area of Thar is 21589 square kilometers. (Hassan and Hardy 1993:4) Both figurs include some areas of Umerkot district). From above figures it is clear that population is increasing along with animal population, thus showing a decrease in land and resources in the same ratio. If this rate of increase is continued then there will be a need of resources mostly for live stocks fodder, as well as planning, which will lead Thar towards industrial economy.

During 1981 to 1998 the population of Thar increased from 540,985 to 914,291. According to National Census 1998, this increase shows an annual growth rate at 3.13 percent. (District 1999:19). If the growth rate will remain the same, then in 2020 it will be double the existing population.

Live stock population, which was 3.88 millions in 1991, increased in 1993 to 4 millions (projected TRDP), yet in 1996 census the population decreased to 3.86 millions (38,56,328). The decrease of 0.51% during 1991-1996 was because of droughts. This condition remained constant till the year 2000. In 2000's drought conditions the animal poppulation again decreased, therefore projection will not be accurate but it will remain in betwwen 3.00 to 3.60 millions approximately (Herani 2002:46).

Table-1

Population of Thar						In (Thosands)
Year	1951	1961	1972	1981	1998	1981-1991TRDP p.19
population	249.28	290.40	359.36	540.99	914.29	747.00
Growth rate	-	1.55	1.85	4.97	3.13	3.2

Source: District Census Report of Tharparkar 1998.

3.1.1 Conditions of Human Settlements

According to TRDP evaluation report 1993, major changes have taken place in the towns and villages of Thar since 1987. In the towns, such as Islamkot and Mithi, a large number of new shops have been opened; old katcha (non-metalled) structures have been replaced with steel structure. A fairly large number of shops and houses have been constructed through encroachments on government land by migrants from rural areas. These encroachments have been intentionally promoted by government functionaries and are protected by them.

The shops in the town bazars have a larger variety of products from urban areas as well as imported consumer goods such as biscuits, soap, henna (hand coulring leaves), textiles, ready-made garments and medicines. An important addition is the availability of newspapers and magazines, which were non-extent in 1987. Shopkeepers informed the evaluation team that sale of factory produced food stuffs, such as tea, biscuits, ghee (butter oil), powdered milk have increasing demand. An increasing number of Tharis have also started to wearing ready-made garments, a very rare thing in the past. The changes in the physical nature of the bazars is certainly worth mentioning, since there was an air of considerable affluence as compared to 1987-88.

However, the towns have become more unhygienic. There is still no proper sewage system and almost all neighbourhoods have their cesspools which are increasing in size. The open drains are not maintained and the streets and opens spaces are littered with organic waste and polythene bags. An increase in the number of vehicles have converted the pure atmosphere into polluted atmosphere.

In the rural settlements the picture is not dissimilar. In all the villages, which were visited, a few of the residents (their number is increasing) have demolished their Thari huts and replaced them with semi-pacca or in some cases, with pacca structures. Mud utensils, commonly in 1987, to a considerable extent have been replaced by aluminium, stainless steel and plastic ones. Majority of Potters (Kumhars) have adopted new skills and many of them have migrated to the urban areas. They have even become richer than the higher caste i.e. agriculturists of their villages. In addition, a few village shops, non-existent in 1987-88, have come up. (Hassan and Hardy 1993:4-7)

In 2006, the people of all the big villages are migrating to settle in urban areas. When they are settled in big villages or cities of Thar, they renovate their houses replacing old cultural huts into burnt bricks-based structured houses. In Mithi, Chelhar, Diplo and Islamkot number of shops have been increased and migrants from rural areas are settled over there. Things which were not available in 1987-88, are now available in big shops e.g. eggs, milk etc. In Chelhar, milk is brought from Umerkot by bus. More fresh vegetable are also available in all big towns and villages, which are en-route for easy transportation. With the change in their thinking, their standard of living has

also improved. They accepted modern thoughts due to which their life style is becoming clean with their thoughts.

After the cyclone of 1994, most of the houses of taluka Chachro were demolished or declared risky residence. After this incident there occurred a change in their thought and instead of pucca houses they preferred to build a hut (chora), which is safer in rainy seasons. Earth quake of 2001 has also made destruction and a large number of houses were declared unfit for human living. Therefore, every Thari is making atleast one hut (Chora) to be used in emergencies, such as rains and earth quake.

3.2 Social Changes

3.2.1 Sex and AgeComposition

3.2.1.1 Sex Ratio

The sex ratio (males per 100 females) of the district in 1998 is 120.6 as compared to Sindh province 112.24. (Sindh census 1998, p.80) The sex ratio in rural and urban areas varies at 121.03 and 112.0 respectively. The sex ratio widely differs at various age groups in the district. It is 137.58 at age group 0-4 and there after decrease gradually up to 128.75 at age group 10-14. It again comes down to 104.85 at age group 25-29, which further decline to 101.92 at age bracket 40-44. However, it rises up suddenly at age group 45-49 to 112.16, touches to 118.17 at age group 55-59, thereafter it shows irregular trend and ranges from 101.45 to 118.14 at advanced ages (60+). The fluctuation of sex ratio at various age brackets is the indications of uneven distribution of population, which may be impact of factors like age misreporting, comparative under/over reporting of either sex, etc., (Herani 2002:63).

3.2.1.2 Age Composition

According to 1998 Census, the population of youth a below 15 years is 50.28 percent of the total population of the District. The percentage below 5 years was 18.21, which included 2.65 percent infants. The population of 65 years and above was 3.73 percent. The proportion of working age groups; i.e. 15 to 64 years comes to 45.98 percent giving an age dependency ratio of 117.48 percent i.e. the ratio of 126.31 and 107.70 percent for males and females respectively. There is a significant variation in the age dependency ratios in rural and at 119.23 percent as against 85.01 percent in urban areas. The adult population 18 years and above was 44.73 percent for males and 47.37 percent for females. This percentage is 44.45 in rural and 50.80 in urban area and the population eligible to vote after 2001 was 18 years and above. The percentage of population by important age groups, sex and rural / urban areas is given in table, figures reflects the age and sex structure of the district.

The district has a broad based population pyramid indicating a high proportion of population under 5, which are 18.21 percent comprising 19.29 percent males and

16.91 percent females. Shape of the pyramid becomes narrower at the adult age groups and then went on to a thin peak showing a smaller proportion of population at advanced age groups. Dependency ratio is 117.48 % as compared to Sindh province 83.58 % (Provincial 1998:81).

Table-2
Percentage of Poppulation By Age Sex And Rural / Urban Areas 1998

Age	ALL AREAS			RURAL			URBAN		
	Both Sex	Male	Female	Both sex	Male	Female	Both sex	Male	Female
Less than one year	2.65	2.94	2.29	2.66	2.96	2.30	2.25	2.46	2.02
Less than 5 years	18.21	19.29	16.91	18.37	19.48	17.02	14.89	15.12	14.63
Less than 10 years	36.41	38.04	34.44	36.71	38.41	34.66	29.64	29.49	29.81
Less than 15 years	50.28	52.33	47.82	50.61	52.73	48.05	43.04	43.02	43.06
18 years and above	44.73	42.54	47.37	44.45	42.18	47.21	50.80	50.87	50.72
21 years and above	38.34	36.66	40.37	38.09	36.32	40.23	43.88	44.33	43.38
15-49 years	39.12	37.37	41.23	38.75	36.91	40.98	47.24	47.81	46.60
15-64 years	45.98	44.19	48.15	45.61	43.74	47.88	54.05	54.32	53.75
65 years and above	3.73	3.49	4.03	3.77	3.52	4.07	2.91	2.66	3.19
Age dependency ratio	117.48	126.31	107.70	119.23	128.61	108.85	85.01	84.10	86.04

Source: District Census Report of Tharparkar 1998

3.2.1.3 Marital Status

All individuals with 15 years and above age enumerated in 1998 population census were classified according to their marital status, namely, "married", "never married", "widowed" and "divorced". Out of them 22.53 percent were un-married. 72.36 currently married, 5.07 widowed and negligible i.e. 0.04 percent as divorced. The never married amongst males are 28.45 percent, which is much higher than the females at 16.00 percent. This difference is also reflected through the ratio of marriages, which is 22.46 years for males as compared to 19.34 years for females (Herani 2002:65).

3.2.1.4 Literacy

Literacy in the 1998 Census is defined as the "ability to read a news paper or write a simple letter in any language, the literacy is measured in terms of literacy ratio and computed as percentage of literate persons among the population aged 10 years and above.

Table-3
Literary Ratio By Sex And Rural / Urban Area 1998

Area	Both Sexes	Male	Female
All Areas	18.32	28.33	6.91
Rural	16.35	26.17	5.14
Urban	57.27	71.14	41.68

Source: District Censuses Report Tharparkar, 1998

The literacy ratio of the district is 18.32 percent. The male literacy ratio is higher at 28.33 percent as compared to 6.91 percent for females in 1998. There are sharp differences in the literacy ratio by sex and area. The ratio in urban areas is 57.27 as compared to only 16.35 percent in rural areas. In rural areas, male literacy is five times to female literacy ratio; however, in urban it is higher for males, by 29.5 percent comparison to that for females.

3.2.1.5 Educational Attainments

The percentage of educated persons is 17.93 percent of the population aged 10 years and above, including those below primary. The remaining 82.07 percent either have attained no educational level or never attended any educational institution.

A large variation exists in the ratios of educated persons in rural and urban area as well as for males and females. The percentage of males is 27.89 and for female 6.57. It is 15.95 for rural as against 57.05 for urban areas. Table 1.4 gives the ratios of educated persons by sex and rural / urban areas

Table-4
Educated Persons as Percentage of Population 10 Years And Above By Sex And Rural Urban Area 1998

Area	Both Sexes	Male	Female
All Areas	17.93	27.89	6.57
Rural	15.95	25.72	4.80
Urban	57.05	70.99	41.37

Source: District Census Report of Tharparkar 1998

A large variation exists in the ratios of educated persons in rural and urban area as well as for males and females. The percentage of males is 27.89 and for female 6.57. It is 15.95 for rural as against 57.05 for urban areas. Table 1.4 gives the ratios of educated persons by sex and rural / urban areas

3.2.1.6 Enrolment Ratio

The enrolment ratio measured as percentage of students of age between 5- 24 years of the district is 12.56. The enrolment ratio differs sharply between rural and urban areas as well as for males and females. It is higher for male's i.e. 16.64 percent as

compared to 7.56 percent for females. The enrolment ratio is much higher in urban areas at 42.95 percent and only 11.19 percent in rural areas. There are also sharp differences between male and female enrolment ratio in rural and urban area. In rural areas, the ratio of male is more than double to that of female, whereas in urban areas, it is higher at 49.95 percent for males, as against 35.25 percent for females. Table 1.5 gives enrolment ratio by sex and rural / urban areas.

Table -5
Enrolment Ratio By Sex And Rural / Urban Area 1998

Area	Both Sexes	Male	Female
All Areas	12.56	16.64	7.56
Rural	11.19	15.21	6.24
Urban	42.95	49.95	35.25

Source: District Census Report of Tharparkar 1998

3.2.1.7 Education

Between 1985-86 and 1990-91 there has been a major increase in number of schools and teachers in the 4 talukas of the Thar district (Herani 2002, Appendix-14) However, there has not been a corresponding increase in the number of students, except for enrolment at the mosque schools (Madaris). Since 1985-86, the number of female students at primary level has increased from 1,854 to 6,923 in 1990-91. Although impressive in percentage terms, this figure constitutes no more than 9 percent of all school age going girls in the Thar district. In 1989, this figure was 7 percent.

In 1985-86, there were only 2 girls middle schools in the district and now there are 7. However, there are no middle schools for girls in the Diplo and Nagar talukas. In addition, the girls high school at Diplo, which was operating in 1987, remains the only one in the whole district. The number of students at the school has fallen from 240 in 1985-86, to 131 in 1991-92. Due to the absence of girls high schools and an acute shortage of girls middle schools in the district, woman teachers and paramedical staff cannot be locally recruited. In addition, the absence of girls middle and high schools also means that the only way women can receive education is by going away from their village to a nearby village, where there is a school. This is simply not possible in the vast majority of cases and in the recent past, the law and order problems in the province have created an additional psychological barrier to girls moving away from their village or travelling alone. This is the reason given for the drop in the number of girl students at the high school in Diplo (Hassan and Hardy 1993:11).

The education department runs primary, middle and secondary schools. However, there are very few middle and high school facilities for girls. In addition, these facilities are available only at the taluka headquarters. It is not very easy to travel for the vast majority of students especially girls. Further, there is no hostel facilities

in the taluka headquarters for students from outside the district. Table-6 is showing number of institutions and students in the district for the year 1997-98.

In 2005-06 number of students has increased more than six times in comparison of 1997-98 in primary schools but at secondary level growth is not good. Over all number of students is increased more than 4 times in comparison of 1997-98. It is good sign of growth .

Table-6
No. of Schools and Enrolment of Students, 1997-98

Institution/Enrollment	Primary	L. Secondary	High	Total	Degree	
Number of Institution	2925	00 43	00 26	2994	0 01	
Number of Students	20701	5042	9192	34935	864	
Source: District Census Report of Tharparkar 1998						
No. of Schools and Enrolment of Students, 2005-06						
Institution/Enrollment	Primary	Middle	High	H. Sec	Total	Degree
Number of Institution	3,370	0286	0032	01	3,689	0 01
Number of Students	125,025	8,832	7,665	367	141,889	N.A
Source: SEMIS 2005-06 Tharparkar						

3.2.1.8 Health Facilities

Between 1987 and 1991, there has been a major increase in the GOS provided health facilities in Thar (Herani, 2002, Appendix - 15: Health Facilities in Thar District). In addition, the Mithi taluka hospital has been upgraded to a civil hospital, and as opposed to a total of 98 beds available in hospitals, RHCs and district council dispensaries in 1987, there are 124 beds available today. Similarly, the number of doctors working at the health facilities has increased from 38 to 69. On the other hand, the number of nurses has increased only from 9 to 11 and the increase in the number of other para-medical and technical staff is not in proportion to the number of doctors. These statistics do not indicate that there has been much of an improvement in the provision of health services to the Thar district.

However, immunisation coverage has increased in the Thar district from 0.2 - 4.8 percent in 1987 to 22 percent in 1989 to 34 percent in 1992. This is a major achievement.

There has been an increase in the number of private medical practitioners, some of them quacks, in the larger Thar settlements. They prescribe patent medicines and as

such there has been, according to the shopkeepers that stock these medicines, an over 200 percent increase in their import and use in the last 5 years.

There has been no visible hygiene related improvement in environmental conditions or the attitudes of people. The conditions in the larger settlements have deteriorated due to the pressure of ever-increasing population. Thus generating bulk of solid waste and waste water, and a break up of the social structure. (Hassan and Hardy 1993:12)

According to 1998 census the health department headed by the District Health Officer operates only three taluka hospitals. There are also maternity homes and rural health centers. In addition, there are a large number of district council dispensaries in the desert. The following table showing the medical facilities available in the district for the year 1997-98 is as follows:

Table-7
No. of Government Hospitals & Dispensaries 1997-98

Type	No.	Run By
1. Civil Hospital	01	Provincial Government
2. Hospitals	02	Provincial Government.
3. Rural Health Centers	03	Provincial Government.
4. Basic Health Units	21	Provincial Government
5. Dispensaries	38	District Council
6. Maternity Child Welfare Centers	02	Provincial Government.

Source: District Censuses Report Tharparkar 1998

There is one hospital bed for every 7,000 people in Tharparkar district. According to the Sindh health department documents, the total number of beds in the district is 150 to cater to the needs of over one million people, which means every 7,190 people in this district are sharing one bed. (Dawn 2000, 19, Oct)

3.2.1.9 Roads

There were no new roads except Naukot to Mithi till 1988-1993. In 2006, all the talukas are inter-connected by roads and also other schemes are in operation. Some villages en-route are also linked with main roads.

3.3. Economic Changes

3.3.1. Economically Active Population

Economically active population comprises the persons of either sex who are engaged in some work for pay or profit including un-paid family helpers as well as the un-paid persons, who are not working but looking for work as well as laid off, during the reference period. The economically active population of District is 21.71 percent of

its total population and 37.14 percent of the population aged 10 years and above. The percentage of children bellow 10 years is 36.41, out of which 3.87 percent are students and 5.87 percent are others. Among the inactive population 31.24 percent are domestic workers including 27.95 percent housewife. The activity or participation rates, percentage of population by economic categories and unemployment rates are shown in table- 1.8 below:

Table-8
Percentage of Population by Economic Categories, Sex and Rural / Urban Areas, 1998.

Economic category	All areas			Rural			Urban		
	Both	Male	Female	Both sex	Male	Female	Both sex	Male	Female
Labour force	21.71	36.72	3.61	21.64	36.53	3.63	23.30	41.15	3.32
Not in labour force	78.29	63.28	96.39	78.36	63.47	96.37	76.70	58.85	96.68
Children Below 10 years	36.41	38.04	34.44	36.71	38.41	34.66	29.64	29.49	29.81
Domestic workers	31.24	6.02	61.66	31.22	6.23	61.47	31.64	1.26	65.65
Students	3.87	6.92	0.20	3.51	6.27	0.16	11.86	21.55	1.01
All others	6.77	12.31	0.09	6.91	12.56	0.08	3.56	6.56	0.22
Unemployment rate	4.76	5.10	0.61	4.76	5.10	0.61	4.70	4.98	0.80
Labour force participation rate (refined)	34.14	59.27	5.51	34.20	59.31	5.55	33.12	58.36	4.73

Source: District Censuses Report Tharparkar 1998

The percentage of economically active population to the total population i.e. 21.71 is termed as crude activity or participation rate. While the percentage among population aged 10 years and above is called refined activity or participation rate, which is 34.14 percent for the district.

The refined participation or activity rate has been used for analysis. There is a wide variation in the activity rates between males and female as it is 59.27 percent for males as compared to only 5.51 percent for female resulting in an overall low participation rate. The activity rates between rural/ urban areas differ slightly as it is 21.64 percent in rural area as against 23.30 percent in urban areas.

3.3.2 Employed Population by Industry

Half of the working population i.e. 73.15 percent is engaged in ‘Agriculture, Forestry, Hunting and fishing’ and remaining in non-agricultural industries. In rural areas, the most important industry is ‘Agriculture, Forestry, Hunting and Fishing’,

which accounts for 75.85 percent. In urban areas 30.80 percent of the working population is associated with the Community, Social and personal Services' followed by 24.68 percent in activities not adequately defined (Herani 2002:39).

3.3.3 Employed Population by Employment Status

Among the employed population, 72.96 percent is self-employed, 4.26 percent working as private employees, 5.04 percent working as government and autonomous employee and 17.24 percent as unpaid family helper. Table-1.9 gives percentage of working population by employment status.

In rural area majority, i.e. 73.74 percent is self-employed followed by 4.15 and 3.18 as government employee and private employees respectively. Almost 18 percent are unpaid family helpers. Similarly in urban areas 57.10 percent are self-employed followed by 23.26 percent government employees, 13.59 percent private employees and 4.74 percent unpaid family helpers.

Table -9
Employed Populations by Employment Status, Sex and Rural/ Urban Areas, 1998.

Employment status	All areas			Rural			Urban		
	Both	Male	Female	Both sex	Male	Female	Both sex	Male	Female
All categories	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Self employed	72.96	75.27	45.87	73.74	76.02	47.11	57.10	60.11	17.12
Employee (govt.)	5.04	5.15	3.79	4.15	4.33	1.55	23.26	20.84	55.41
Employee (auto)	0.10	0.11	0.09	0.06	0.07	0.00	0.95	0.85	2.26
Employee (private)	4.26	4.58	0.54	3.81	4.09	0.49	13.59	14.48	1.78
Employer	0.39	0.42	0.01	0.39	0.42	0.00	0.36	0.36	0.32
Unpaid family helper	17.24	14.47	49.69	17.86	15.02	50.85	4.74	3.36	23.10

Source: District Censuses Report Tharparkar 1998

3.3.4 Un-Employment

The un-employment rate is based on the percentage of un-employed persons including those not working but looking for work and laid off to the total economically active population in the district. The un-employment rate of the District is 4.76 percent. It varies for males and females as well as for rural and urban areas. The unemployment rate for males is 5.10 and for female 0.61 percent. It is 4.76 percent in rural areas and 4.70 percent in urban areas. A sex difference is visible in un-employment rates within and across the rural boundaries but with varying degree of percentage (District 1999).

3.3.5 Transportation

The most important indicator of social change in the Thar region is the increase in transport activity and its nature. In 1987, there were 3 jeep taxis in Thar. In 1991 there were over 35 and they charged Rs.500 per day. They claim that there is no shortage of business and there is room for more taxis. The taxi clients are all locals and often fodder, consumer items and Thari dairy products are transported in them (Herani 2002:41).

During 2007 more GMC vehicles are being converted into buses and transportation is better than previous years. Direct buses are coming from Karachi, Hyderabad to Mithi after every one hour. The bus fare charged is also nominal because of the roads e.g. from Mithi to Naukot, Diplo to Mithi, Mithi to Umerkot via Chelhar. It shows that standard has improved comparatively due to Pacca roads and transportation is becoming more comfortable due to buses, taxis, jeeps etc. Now a day taxis are also available in rural areas and in future more transport is expected.

3.3.6 Carpet Industry

During the field trips it is observed that carpet looms at more than 50 percent of the villages are installed. In all cases the weavers were children who had been trained by an already trained person, who had received training at Islamkot, which used to be a major carpet manufacturing centre. According to the relatives of the children working at the looms, their average earnings are Rs.700 per month. The number of looms is steadily increasing and about 80 percent of the boys, who work on them are from the Meghwar community. For example, at the Jogi Marhi settlement there were 2 looms in 1987, 12 in 1988, and 41 in 1990. Over 80 persons work on these looms. In the Lunio settlement, outside the TRDP, PA, there are 10 looms with 30 children working on them. The hour of work varies between 10 and 14 per day and the conditions of work are unhealthy because of a lack of light and cross ventilation.

Families whose children are working on the looms, have lost interest in agriculture and the children are quite definite that they will not be agriculturists. In addition, these families are distinctly more affluent than their neighbours.

The looms are all owned by entrepreneurs and middlemen from the urban areas of Thar. Initially, they were installed in the urban settlements, where the children were brought from the rural areas and lived in large groups in one room with grown-ups. Many of them became drug and alcohol addicts. After that the move to the villages was made because it cut the middleman's overhead costs and made this activity a more low profile one, thus reducing government and public awareness concerning it and interference in it (Hassan and Hardy 1993:15).

All the above reports are up to 1993 (TRDP). Carpet manufacturing has decreased since 1993-1999. Due to low rate of income and advances denied by middle men. If given advances then in justice is done to children by paying low wages.

Consequently people started to search an alternate to earn for their livelihood; and started to move towards various cities of the province eg. Karachi, Hyderabad etc. Mostly youths are engaged in ready made garments and earning more than carpet. Only few labours have taken the advance for bonded labour, which mostly given at salary basis or daily wages. In some cases, those manufactureres, who had left this business, since 2000 have again started this busness of carpet for exports. According to survey of TRDP and RASSTA Development Consultants, in their book in Sindhi " Rata Rang Komayal Bar " 1999 12% of children are working in carpet industry. Other workers are more than 14 years of age (Ratta 1999:13-15).

In 2006 it was observed that some middle man are coming directly hire manufacturers at suitable rates. Due to this initiative by exporters carpet industry has started flourishing. The road and telecommunication network has reduced the travelling time and it has facilitated the Tharies to get more opportunity of earning. Khadhi weaving is also in practice and some active NGOs are encouraging the weavers.

3.3.7 Remittance Economy

Since time immemorial Tharis migrate, during dry seasons, or in periods of drought, along with their animals to the barrage areas to work as farmers. This migration was primarily for feeding and watering their animals, selling their dairy products and surviving through drought period. However, between 1987 and 1992 , an ever increasing number of Tharis are migrating to the urban areas outside Thar to work as masons, as tailor masters in garment factories, as domestic servants, as labourer in sugar factories, and as employees in government departments. They earn between Rs. 1,000 to 4,000 per month. Villagers claim that families who receive remittance money from the cities have lost interest in agriculture and in many cases they are giving their lands to others on contract basis.

In addition to this migration, since 1987 the Thar elite have also abandoned the desert. They live in Karachi or Hyderabad with their families where they are engaged in business or "service" and visit the desert in "in season". Many Tharis have also established shops in the cities where they sell Thari handicrafts and employ Tharies as their assistants. A number of such shop owners operate through middlemen in the desert, or themselves act as middlemen.

After 1993 more Tharies have been migrated to barrage areas. Majority of Thries are working in cities as tailors. They are earning 4000-6000, but due to unestablished market over all in Pakistan this sector also is somewhat influenced. Inspite of that tailors are earning good and their standard of living has improved comparatively (Herani 2002:44).

In April 2006, people who did not have livestock or business in Thar, depend upon remittance economy, from barrage area and cities; and this trend is increasing day by day. Now every one who comes out of Thar, including students and those who

are in search of government jobs. Also prefer to join tailoring job in order to face the drought conditions; pass their time and earn some thing more than those who are low paid government servants. One thing is in common that they waste their income living in cities due to lack of awareness, mis-using the money and extra expenditure and send less money to home; inspite of that it is at this time better job for Tharis.

Garments Factories have provided them with facilities but at the same time some literate persons are also spoiled because they have never accepted low salary from private sector due to lack of confidence in the power of education. They are satisfied with what they are earning. They are waiting for government jobs, which are not available. Those who have joined the private sector by the passage of time have learned to earn.

3.3.8 Increase in Animal Population

The TRDP survey of the animal population in the TRDP, (Project Area) PA in 1989 and again in 1992 has established a 258 percent increase between 1989 and 1992. The major increase has been in cows (Herani 2002 Appendix.20).

Most villagers who own animals certainly believe that it is their livestock that is the cause of their sustained lives and not agricultural activity. It was pointed out, more than once, that a poor man was one who owned no cattle or goats. The valley of Nagarparkar is richer in vegetable growth, which supports a large variety of livestock such as cattle, camels, goats and sheep.

Table-10
Livestock Population In Tharparkar District

Particulars	Population	Population	Growth rate %	Growth rate%	Status
Cows	0485137	0.55	88.20	8.82	Decreased
Buffaloes	0039842	0.19	20.96	2.08	Decreased
Goats	1970852	1.33	148.00	1.48	Increased
Sheep	898542	1.33	67.56	6.75	Decreased
Horses	008132	0.003	271.00	2.71	Increased
Camels	103057	0.015	686.00	6.86	Increased
Donkeys	150834	0.020	751.70	7.51	Increased
Total	3,85	3.43	89.01	8.90	Decreased
Millions	6,328				
Census	1996	1986	1986-1996	P/Annu	

Source: District and Provincial Census Report 1998; and www. Sindh at a Glance

Source: Livestock Census

In 1986 census was 3.43millions (Appendix-20)
 In 1991 projected was 3.88 millions. (SAZDA SOURCE)
 In 1993 projected was 4 00 millions (An Introduction To TRDP)
 In 1996 Census was 3.86 millions (Live stock & Agri., census)
 In 2001 projected is 3.00 to 3.47 millions (10 -20 % Loss)

In 2006 expected round about 4.00 millions

3.3.9 Agricultural Activity

District is poor in agriculture as it depends upon rain. Livestock farming is sustainable source of income. If plants are looked after with proper planning, it will lead Thar to industrial economy.

3.3.10 Artisanal Activity

Artisanal activity in Thar has increased to cater the city markets. It is entirely financed and managed by Thari middlemen and increasingly uses the raw materials. As a result, the production of khata (blanket) and kharal (wollen rugs) has fallen (in some areas they are not produced any more), and that of shawls has gone up. There is no longer make thread out of their wool but exporting it in raw form. The price of Thari wool has increased from Rs. 10 per kg in 1987 to Rs 25. Similarly, leather is no longer manufactured or worked in Thar in any substantial quality but hides and skins are sent to Karachi and Hyderabad in bulk (Hassan and Hardy 1993:19).

Embroidery is old traditional art of the women, which is introduced and much liked in the international markets. Per day labour is very low in spite of that ladies are doing it and supporting their families.

3.3.11 Thar's Mineral Wealth

Sulphur deposits are found at Karoonjhar Hills in Nagar Parkar taluka besides granite stone and china clay. Coal deposits have been recovered at Warwai, a small village, near Islamkot. This is one of the 13 places in the district, where coal deposits have been found.

Granite: The Tharparkar district comprised in-exhaustible good quality granite deposits at Nagarparkar on Pak India border. Entire Karoonjhar Range of mountain is granite. Local mining companies are engaged in granite mining and polishing. There is a lot of potential for investment in granite mining and processing.

Thar Coal Deposits: Tharparkar district is spread over an area of around 20,000 square kilometers. Of this over 9,000 square kilometers is identified coalfield having estimated reserves of around 200 billion tones of good quality lignite, suitable for power generation. The coalfield is located at a distance of around 400 kilometers in northeast of Karachi. Thar coal is being developed, as a fuel, especially for power generation, which is enough to meet fuel requirements of the country for centuries and, would provide a sustainable and reliable power generation programme (District 1999:5-6).

3.3.12 Debt Status

Eighty percent of the Thari households in the Project Area (PA) are in debt to money lenders and 65 percent of Thari households in the PA pay 3 percent per month as interest on their debts. 75 percent of the households in debt have borrowed money for food and 25 percent for other needs. This situation was established by the TRDP base line survey of 1989. Since there is no previous survey or a survey after that date, the trends in debt cannot be ascertained. However, as average earnings according to the survey are only Rs. 4,954 per year. About 46 percent of their earning is spent on food, there is no way that these debts can be repaid. According to the villagers, who spoke to us during the field trip that the vast majority of these debts were incurred during the previous droughts. Only, those persons who are working regularly in the cities or the barrage areas, those whose children (more than one) work at the carpet looms; and those who can sell enough cattle, can repay these debts (Hassan and Hardy 1993:19-20).

According to survey of "Children working in Carpet Industry" in 1999, round about 81 percent have the burdon of loan at their shoulders; out of that 64 percent are able to pay the loan easily. Mostly people are able to pay loan upto Rs. 5000. An average amount of loan is from 10-50 thousands as a average. Less then 10 percent families are able to pay more then 10 thousands.

They are loaner in the following order: (i). 2% NGOs. (ii). 27% Money lenders . (iii). 5% Contractors. (iv). 7% Relatives. (v). 11%land Lord. (vi). 12%Neighbours. (Ratta Rang Koomayal Baar 1999, pp.13-15). Primary data of thesis (Herani 2002, Table-8) is as bellow: (i). 9% Farm bonded loaner, (ii). 26% Loaners to shopkeepers, (iii). 23% Money lenders, (iv). 22 Friends/ relatives, (v). 20% Not loaners at all.

In 2007 without survey, by opinions of common people during casual trip and personal observations it is coming to know that situation of people has improved.

3. CONCLUSIONS

Finally it can be concluded that population in Tharpakar has highest ratio as compare to other districts of Sindh province. According to census 1998 overall growth rate was 2.8% per annum for the province and for Thar 3.12%.

Its population growth rate is decreased, in comparison of 1981-1991, which was 3.2% and it was worked out 4.4 for urban areas. It was 3.12 in 1981-1998 per annum. With this growth rate up to 2020 the population will be double. It does not support the hypothesis two.

Ratio of males is greater than female. It means number of workers has increased. 50.28% population is bellow 15 years. While at provincial level it was 42.76%, it shows high growth rate of working people. If they are educated and motivated for

proper income generating sources, then it will prove better; otherwise there will be lower affordability power, which supports hypothesis one.

It is found that 22.58% are un-married, while at provincial level rate is 30.62%. It shows that population growth rate will be more in future in comparison of province.

Literacy rate is 57.27% for urban and 18.35% at rural level. Moreover, over all in Thar, it is 18.32% and at provincial level, it is 25.73%. In urban areas of provincial ratio of educated is 55.96% and at Tharparkar is 57.05% indicates that Tharies urban are more aware for education. It supports the hypothesis four.

Human settlements have improved along with living status. As urbanization is increasing living status is also increasing, making new huts better than before and in every respect they are ready to accept new methods of social change. It supports the hypothesis three and five. As urbanization increased, the literacy ratio increased and growth rate also increased along with density per square K.M, it does not support hypothesis six.

Health care facilities are increased in the sense that number of practitioners have increased. Immunization has increased from 4.8% to 34% from 1989 to 1998. Public hospitals have not increased.

Out of total refined population, only 34% is participation rate by economic category. It is 59.27% for males and 5.51% for females resulting in an overall low participation.

Transportation has increased at better level. Moreover, with the spread of road network, it will improve more. Network of road is also increased in the era of present regime and expected better in future. Carpet industry is in ups downs depending upon the export demand. At present remittance, income has played a big role as a contributor in the development of home status of people.

Livestock has decreased due to droughts occurring. It was better in census of 1981. However, it is the sustainable source of income in Thar. In addition, it will lead Thar in to industrial economy if it is promoted by awareness.

4. POLICY RECOMMENDATIONS

Based on the rapidly growing population of the district, sustainable planning to cope with challenges next from it, a number of policy recommendations are made for human resource development and management of demographic, social and economic problems.

- i. New trend of migration from villages to urban areas is encouraging. This trend puts pressure on the urban areas and creates some problems of overcrowding and density.

It is therefore recommended to enhance the social and economic activities in small villages. It will also help to utilize the rangeland of villages when they will stay over their native places.

- ii. There is need of increasing livestock, which is real sustainable source of income
- iii. There is need of microfinance and safety nets. It is also recommended that deposit at very small amount be encouraged to train them in financial matters and will create the habit of saving.
- iv. Arrangement should be made for those who have nothing to eat only simple bread for two times. At least simple bread at two times food should be ensured by microfinance and create the habit of deposit a very small amount at fixed time. In this way, they will also get rid off from traditional moneylenders.
- iv. Best race of livestock that gives more production should be introduced for boosting of income and alleviating poverty.
- v. There is need of properly managed system of artisanal activities support. It will support them a surety of at least of a small earning.
- vi. Presently a lot of work is being done on network of roads. Electricity and tube wells. It has improved the status of living and healthy environment. So it is recommended to enhance the plans and complete the ongoing plans with in time.
- vii. This District has abundant labourers as compared to other region of the province Sindh and must adopt modern incentives and technologies e.g. information technology, electrical machinery for cottage industry and dairy farming; making them aware for more efficient employment of their domestic labour.
- viii. Government of Pakistan must launch a boosting program for encouraging students to achieve almost 100% literacy rate as well as scientific knowledge and latest technology should be imparted. It can be done by encouraging scholarships, which is introduced for girls at this time by government.
- ix. Active NGOs should play active role in creating awareness in Thar. They are doing but more scholars are required which is lacking of these NGOs. There is need to develop strong partnership and cooperation among the public private and corporate sectors to handle the problems and urban and rural settlements viable and live able.
- x. Innovative plans should be made for successful completion of projects. Advocacy method should be adopted during decision-making and implementation of planning of planning procedures.
- xi. Reform of Rangeland and Farmland should be done by fencing at farmland for the better environment and fodder for livestock.
- xii. Rainy canal scheme should be completed as soon as possible.
- xiii. Tree plantation schemes should be encouraged by indigenous and exotic plants.
- xiv. Under ground water should be pulled out by increasing the number of tube wells.
- xv. Small dams should be built to harvest the rainwater. Already proposed and pending work should be completed.
- xvi. Water supplied through pipe line should be extended.
- xvii. Mobile community bank should be introduced through NGOs getting deposits and that should be encouraged according to guide lines issued by state bank of Pakistan in 2005.
- xviii. Degree college of Mithi should be given status of university, which was already in plan to provide the quality education at low expenses
- xix. More research programs should be made to update the data for planners.

- xx. Minerals exploration should be extended and royalty should be given for the development of Tharparkar.

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