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Impact of Education on Occupational Diversification: A Study in Nayagarh District, Odisha

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Abstract

Occupational diversification is the most significant mechanism of economic development as it can bring changes in volume of production along with the structural changes in the economy of the nation. Most of the developed countries like USA, UK, Russia, Japan, China have passed through such occupational diversion process. Majority share of workers have shifted their occupation from agricultural sector to either secondary or tertiary sector. But, in our country, the process of diversion is found to be slow. Of course, there is acceleration in the process particularly after the post-reforms period. Odisha being one of the less developed States of the Nation, possesses slow process of occupational shifts. Hence, an attempt has been made to study the process of occupational diversification from farm sector to non-farm sector in rural set-up of the State. The study has been made in Ranapur block of Nayagarh district of the State since the block seems to be in a better position in level of education. Education is one of the prominent factors influencing the diversification process. Therefore, the paper concentrates on studying the impact of education on occupational diversification process. For its measurement, the indices like, Bhatia Index, Transformed Bhatia index, Simpson index, Herfindahl index, Transformed Herfindahl index, Entropy index and Modified Entropy index has been computed.It is observed that there is higher occupational diversification from farming to non-farming sector due to gain in education and training opportunities and it is followed by income diversity due to occupational diversification.

Keywords: Occupational Diversification, Income Diversification, Educational Status, RNFS, Employment.

Introduction

Diversification is defined as change in choice of product and use of inputs basing upon the market conditions and principles to attain profit maximisation (Pingali and Rosengrant, 1995). Agricultural diversification can be defined as the process of growing different crops instead of raising a single crop. Joshi et al (2004) defined it as movement of production portfolio from a low-value commodity mix to a high-value commodity mix. Thus, agricultural diversification should be considered as a strategy of changing crop with due consideration to minimisation of risk, sustainability and gain in production depending upon farmers' interest and choice. So also, occupational diversification can be defined as the change in occupation from the primary activity to either of secondary or tertiary activities basing upon the level of education, training or knowledge gained by oneself and availability of the job opportunities either in government or private sector of the nation.

Agricultural diversification is an important mechanism of economic growth (Bhat and Salem, 2016). But occupational diversification is the most significant mechanism of economic development as it can bring changes in volume of production along with the structural changes in the economy of the nation. It can be commonly observed that the nation with high employment share in industrial or service sector is found to be developed. In contrast, the nation with higher share of employment in primary or agriculture and its allied sectors is found to be either developing or underdeveloped one. Thus, occupational distribution with diversion of occupation in favour of the secondary and tertiary sectors has an important bearing on the process of the development of the nation.

The evidences on such observations can be well displayed in table no.-1, from which a comparative analysis can be made on the diversion of occupation among the different sectors of our nation with that of the developed nations such as USA, UK, Russia, Japan and China. It can be observed that the workforce dependent on service sector was highest during the period in UK followed by USA, Japan and China.It can be well noticed that percentage share of workforce having occupation in primary sector is highest both in 2009 as well as 2019 in India. Of course, it has declined from 52.45 % to 42.39 % during the period but maintain its status. In contrast, the percentage share of workforce dependent on services sector in India is found to be lowest although there is increase in the share from 26.37 % to 32.04 % during the period. In secondary sector also there is increasing trend, still it needs further growth of diversion of occupation from primary sector. It is notably clear that the process of occupational diversification in India is slow.

In case of the State of Odisha, the workforce dependent on agriculture and its allied sector is 48.76 % (2017-18), which is more than the national level. But the levels of employment in Industrial and Services sectors were 26.14 % and 24.80 % respectively. It shows that the process of diversion from primary to other sectors in Odisha is slower than that of the Nation.

Table No,-1
Occupational Distribution of Some Important Nations from 2009 to 2019

(in percentage)

Nation	Primary Sector		Secondary Sector		Tertiary Sector	
	2009	2019	2009	2019	2009	2019
USA	1.35	1.34	20.0	19.81	78.65	78.85
UK	1.17	1.03	19.61	17.88	79.28	81.09
RUSSIA	8.27	5.76	27.5	26.68	64.23	67.57
JAPAN	4.21	3.42	26.15	24.27	69.64	72.31
CHINA	38.1	25.1	27.8	27.5	34.1	47.4
INDIA	52.45	42.39	21.18	25.58	26.37	32.04

Source: www.statista.com

Statement of the Problem

When there is diversion of workforce from rural farm sector to any rural non-farm sector (hereafter RNFS) it includes all the activities either in secondary or tertiary sector. Lanjouw and Lanjouw (1995) defines the RNFS as the sector which include all the economic activities in rural areas except agriculture, livestock, fishing and hunting. Thus, it would include activities like handicrafts, mining, quarrying, household manufacturing, processing, repairs, construction, transport and communication, trade, community and personal services in rural sector. Saith (1992) had proposed to broaden the definition to include all activities except crop production.

Chadha (1997) pointed out that National Sample Survey(NSS) in its data have not indicated whether employment in rural sector include only rural, semi-urban or urban areas while showing the percentage of rural workforce employed in different activities. Thus, Saith's affirmation that the rural sector should include all economic activities which has strong rural linkages irrespective of their location. The rural non-farm workers who have worked outside the villages but exhibited linkages with the rural areas can be within the jurisdiction of RNFS.

When analysis is made on reasons for diversification of employment from farm sector to RNFS many factors come to the scene. Sharad (2006) in his study pointed out that the major factors responsible for the diversion are asset endowments, human capital attributes, caste/ religion affinities, urbanisation, social capital and govt. policies, incomplete/ missing markets, risk and **s**easonality**.**

Scope of Diversification

Diversification is a process of adopting new economic activities for widening income level by households. It is a procedure through which small farming households create different income generating activities for survival or for getting betterliving standard. (Adem et. al. (2018). Mostly, the factors that cause diversification from farm to non-farm sector broaden the scope of diversification. The possession of assets, if in the form of landholdings, has an inverse relationship with the level of diversion. The rural households who have good access to land might show strong attachment to farming and are less compelled to diversify their employment. Small and marginal farmers and landless agricultural labours, since they have limited access to land become inclined to be engaged in RNFS. It is their compulsion that they need their living by any means whether they work in farming or non-farming sector. Thus, asset endowment influences the level of diversification.

Human capital attributes like age, skill and education also broaden the scope. More particularly, the level of education is highly influential in rural non-farm employment expansion. Persons with higher level of education have better opportunity as well as ability to manage business. They have higher working capacity in trading, construction and managerial activities (Islam, 1997). Even in case of self-employment opportunities in RNFS, they have greater access. There is positive association between literacy and RNFS employment (Chadha,1993, Narayanmoorthy et al, 2002, Samal, 1997 and Jayaraj, 1994).

Religion/ caste status also determine the level of diversification in RNFS. It is observed that higher caste people in India gain access to rural non-farm activities more easily while lower caste people face difficulty in diversifying themselves to better paid non-farm employment.

The process of urbanisation affects expansion of RNFS employment (Kundu, 1991). When urbanisation grows, transport facilities expand. Many rural households start shifting occupation to non-farm sector without changing their residence, but through commuting to nearby urban centres (Visharia and Basant, 1994). It helps in expansion of diversification.

Access to markets an also influence the scope of diversification. Of course, market access depends upon the factors like distance to markets, transport infrastructure, quality of goods produced, volume of production, access to market information etc. Pandey et al (2002) in Orissa and Som et al (2002) in Madhya Pradesh has studied how poor road construction stands as marketing constraints. So easy market access encourages people to go for new occupations linked to farming like trading of farm outputs or farm inputs. If there is opportunity, establishment of agro-based units cannot be ruled out. It helps in self-employment as well as expansion of wage employment in nearby urban centres.

Social capital in one sense the social networking is an asset which helps in diversification towards RNFS. It can be found that the friendship or kinship is a determinant of access to RNFS. Person with low social status are at a disadvantageous position in entering RNFS. It is because people with friendship can get chance to shift their occupation with the help of friends in nearby urban set-up.

Government policies mostly public services play an important role in development of non-farm economic activities. For example, expansion of educational institutions like schools, colleges, training centres, hospitals, roadways etc. always boost varieties of activities in local areas which generate non-farm employment opportunities. Samal (1997) in Orissa evidenced the positive relationship between administrative and social services and generation of rural non-farm employment.

Reardon (1998) points out that the inherent risk in agricultural sector induce the people in farm sector to diversify their activities. Mishra and Goodwin (1998) found that farmers are ready to accept work at a lower wage if it is less risky. Sharad (2006) in his study found that seasonality also determines the diversification in employment in RNFS. It is usually found that agricultural production is seasonal since it is mostly dependent on monsoons due to lack of adequate irrigation opportunities. So after kharif season farmers start reaching employment in RNFS till again monsoon comes.

From among the factors responsible for the scope of diversification, education has been chosen in this study. An attempt has been made to study the level of diversification due to the different levels of education in a sample area.

Objectives of the Study

The objectives of the present study are as follows.

1. To examine the level of occupational diversification from farm sector to non-farm sector due to achievement of education and training opportunities in the study area.
2. To examine the level of diversification in income due to changes in occupation from farm to non-farm sector in the sample block of the study area.

Data and Methodology

Sources of Data

The data for the present study have been collected from the primary sources by the researcher. The farmer households whose members have changed their occupations in RNFS have been selected on a random basis from Ranapur block of Nayagarh district. The selection of the sample has been made using purposive sampling. The block has highest number of schools in primary, upper primary and secondary and also of the colleges among all the eight blocks of the district (District Statistical Handbook,2015). In case of the student strength in each level of schools' same type of performance is identified respectively. So far as the teacher strength is concerned, the same situation is observed with an exception in secondary level. The block has the literacy rate of 82.54 % while in case of males it is 89.23 and females 75.49 % as per 2011 census. The present study is aimed at computing occupational diversification index due to various levels of education attained by the members of the farmer households in the sample block.

Due to the impact of education, the changes in the occupation in RNFS and also the improvement in levels of income have been noticed among the sample households. The study covers 326 number of workers in the farming sector of the selected sample block, who have opted for employment in non-farming sector after their completion of education. Therefore, an attempt has been made to compute the occupational diversification indices for analysing the level of diversification basing upon their different levels of education and training opportunities and also basing upon their varieties of occupation. The income variable has been chosen to determine the level of diversification.

Methodology

There are a few measures of diversification.The important diversification indices are Bhatia Index, Simpson Index, Herfindahl Index, Ogive Index and Entropy Index. Each method has its own characteristic and limitations. Basing upon the objectives of the study, the following indices have been computed.

1. Bhatia Index(BI)
2. Transformed Bhatia Index (TBI)
3. Simpson Index (SI)
4. Herfindahl Index(HI)
5. Transformed Herfindahl Index (THI)
6. Entropy Index (EI)
7. Modified Entropy Index (MEI)

All these indices have been computed on the basis of Proportion of Gross Income generated by diversion of occupation from farm to non-farm sector and also due to change in level of education in the sample area.

Bhatia Index (BI)

Bhatia index have been computed in 1965 for measurement of crop diversification basing upon

Gross Cropped Area (GCA). The formula for the index is:

Index of crop diversification
= (Percentage of sown area under the given crops)/ Number of the given crops where the given crops are the selected crops which occupy 10% or more of the GCA.

If the number of crops having 10% of GCA is large, then the crop diversification is higher. But in the present study, it is modified to include the occupations having 5% of the Gross Income of the sample. Since the number of occupations is large and are varied in nature the percentage share of income from the occupations has been chosen to be 5% in the sample study. When it is computed basing upon the level of education, it includes the level of education having 10% or more of the gross sample number of the study area.

Transformed Bhatia Index (TBI)

In case of Bhatia index, a higher value indicates lesser diversification and greater specialisation and lower value indicates the greater diversification and lesser concentration.Thus, this index turns out to be a measure of concentration. Hence, a transformed Bhatia Index can be computed with formula such as

Transformed Bhatia Index = [1 - (Value of Bhatia index/100)].

A higher value of TBI indicates higher diversification and lower value indicates lower diversification.

Simpson Index (SI)

Simpson index of diversification includes the number of occupations chosen by the farm workers in non-farm sector in the study area. It is being computed by using the formula;

SI = 1- (Proportionate income of workers serving in companies in the gross income of the sample of workers).

In this index, the income of workers serving in companies has been chosen as the proportion of income in gross income of the sample is highest at 22.87%. Thus, Simpson index measures the income diversification away from the income of the workers depending on company services.

When it is computed from the income basing upon level of education, income of the workers having UG/PG education has been taken as basis since it is highest among the different category of educated workers.

Herfindahl Index (HI)

Herfindahl Index is computed by taking sum of squares of income proportion of each occupation in the gross income of the sample. It is being computed by using formula:

$HI = (\sum_{i=1}^{n} P_i^2)/n$

where n is the total number of occupations and

$P_i$represents the income proportion of the i^{th} occupation in the total sample

So, $P_i = Y_i / \sum_{i=1}^{n} Y_i$ where $Y_i$represents the income from i^{th} occupation or i^{th} level of education.

In this index when diversification increases HI decreases. It takes value one when there is complete concentration and zero when there is complete diversification.

Transformed Herfindahl Index (THI)

It is found that Herfindahl index measures the level of concentration, Transformed Herfindahl Index is computed to measure the level of diversification. Hence the formula used for computing THI is:

THI = (1- HI).

When the value of THI increases it indicates higher level of diversification and lower value indicates the lesser level of diversification.

Entropy Index (EI)

Entropy Index is used to measure the diversification using the following formula.

Entropy Index = $\sum_{i=1}^{N} P_i$ * log $P_i$where $P_i$stands for proportion of income of the workers from i^{th}occupation in non-farm sector at the time of computing the index basing upon income. While computing the index the diversification basing upon the level of education, $P_i$stands for proportion of income from a given level of education attained by the workers. The value of the index if found to be zero, then it indicates perfect concentration and when it takes value 1, then it indicates perfect diversification. Since the number of occupations as well as the different levels of education when grouped under the study does not exceed 10, the value of index lies between 0 and 1.

Modified Entropy Index (MEI)

The modified entropy index is computed by using the following formula.

The formula for Modified Entropy diversification Index = $\sum_{i=1}^{N} P_i$ * $\log_N(1/P_i)$ or

$$- \sum_{i=1}^{N} P_i * \log_N P_i$$

Where n = number of occupations

P_i=Proportion of income from i^{th} occupation.

If the index is equal to zero, then it presents complete concentration and when it is one, it presents perfect diversification.

Analysis of Data

Diversification indices are computed in the study area. For measuring the extent of diversification, the BI, TBI,SI,HI,THI,EI and MEI are used.All these indices are calculated basing upon the proportion of gross income gained by all the workers diverted themselves from farm sector to non-farm sector in the sample block of the study after having education and training opportunities.

Educational Status-wise Income of Workers after Change in Occupation

The educational status-wise monthly income of the workers who have shifted their occupation from farming sector to non-farming sector has been expressed in Table no.-2. It shows that the workers with M.E. standard of education are very less in the number. In percentage terms it is only 0.62 in the sample. Their per capita monthly income is also found to be lowest at ₹ 10975/-, much below the whole average monthly income of ₹ 21739/- among the 326 number of workers included in the study. Gradually, the level of monthly income increases to the level of ₹ 16259/-, ₹ 21326/- and ₹ 26473/- among the workers

having educational status of H.S.C., Higher Secondary and Graduates and Post-graduates respectively. In case of technical degree holders, the income level is ₹ 23066/- below the level of workers having graduate and P.G. degree but above the whole average income.

Table No.-2
Educational Status-wise Monthly Income of Workers after Change in Occupation

Educational Status	No. of Workers	Level of Monthly Income (in ₹)	Percentage share in Gross Total Income	Per Capita per Month Income (in ₹)
M.E.	04	43900	0.62	10975
H.S.C.	82	1333220	18.81	16259
Higher Secondary	84	1791400	25.28	21326
Graduates / P.G.	94	2488430	35.11	26473
Professional/ Technical Degree	62	1430100	20.18	23066
Gross Total Income	326	7087050	100.00	21739

Computed from the primary data collected from field study.

Employment-wise Income of Workers after Change in Occupation

The employment-wise monthly income of workers who have changed their occupation from farming sector to non-farm sector has been presented in Table no.-3. It is observed that in case of banking and railway services the lowest number of only 2 workers in each have been employed. In case of railways the job is of class-3 level. So, their per capita monthly income level is found to be ₹ 42000/- while in case of banking the both of them are in temporary category and in class-IV level. So, their per capita monthly income is at a lower level of ₹ 13400/- only. The lowest level of income is noticed at the level of ₹ 11621/- among the workers employed in transport sector mostly working as either drivers or helpers.

Table No.-3
Employment-wise Income of Workers after Change in Occupation

Sl. No.	Category of Occupation	Number of workers	Total Monthly Income (in ₹)	Percentage share in Gross Income	Per Capita per Month Income (in ₹)
1	Defence,Police& Fireman	26 (7.98)	529300	7.47	20358
2	Education	56 (17.18)	1620900	22.87	28945
3	Health sector	12 (3.68)	176500	2.49*	14708
4	Company Services	64 (19.63)	1165550	16.45	18212
5	Transport sector	28 (8.59)	325400	4.59*	11621
6	Construction sector	20 (6.14)	649000	9.16	32450
7	Agri-business	34 (10.43)	915900	12.92	26938
8	Other Business	24 (7.36)	427200	6.03	17800
9	Service sector	58 (17.79)	1166400	16.46	20110
10	Banking	02 (0.6)	26800	0.38*	13400
11	Railway	02 (0.6)	84000	1.18*	42000
	Gross Total Income	326(100)	7087050	100.00	21739

Computed from the primary data collected from field study.
* The employment in these sectors are less than 5% of the gross monthly income.
N.B.: The figures in the parenthesis represent percentages.

The highest level of per capita monthly income after the persons working in railways is found to be at ₹ 32450/- among construction sector where the respondents are engaged as mini-contractors, daily wage-workers or in any of the other construction activities. Next comes the category of jobs as teachers (C.T. or B.ed.) in schools either as regular basis or temporary basis including sikshya sahayaks constitute highest share of 22.87 % of the respondents with a per capita monthly income of ₹ 28945/-. In this manner it can be noticed that the respondents constituting about 46 per cent of the sample were employed only in education sector, construction sector, agri-busines and railways have higher income than the whole average income of ₹ 21739/- in the study. In all the rest of the sectors have less per capita monthly income than the whole average income. Agri-business mostly include the job of opening shops for selling agricultural inputs like seeds, pesticides, fertilisers, various instruments, or outputs. Other business includes the job of opening electrical shops, hardware stores, Broiler chicken counters etc. The service sector includes the tiffin shop, automobile workshops, two/four-wheeler repairing workshops, TV/ Mobile repairing shops, video shooting shops, tailoring shops, computer service centres, shop for arts and crafts etc.

The health sector includes the type of respondents who area engaged as anganwadi workers and nursing sisters in nursing homes.

Whatever may be the type of employment in non-farm sector, it is gain to the family of farming households since disguised unemployment and open educated unemployment is prevalent in farming sector. It is observed that the members of farming households try to get employed in non-farming sector whenever they get an opportunity.

Level of Diversification Basing upon Employment and Educational Status

Diversification of occupation after gain in education and training opportunities is always welcome. Still the level of diversification basing upon educational status as well as the type of employment is computed for analysis as presented in table no.- 4. As per the Bhatia Index measurement, both the diversification indices based on education and the employment are found to be 24.84514% and 12.13875% respectively. Since the indices have low percentage values, the indication is that the diversification level is high. It is because the Bhatia index actually presents the concentration ratio at its lower value. Hence its transformed Bhatia index is computed to show the level of diversity in a better way. It is located that the values of TBI are 0.751541 and 0.878613 respectively which are at a higher range as it is a ratio lying between 0 and 1. So, it is found that the diversification is higher as per TBI.

Simpson index values in both the measures are 0.006183 and 0.006193 respectively which are very low signifying the higher diversification. Herfindahl index like Bhatia index shows the concentration level which are low in both the cases while transformed Herfindahl index shows higher values nearing one. Hence it also supplements the TBI result that there is higher level of diversification. In Entropy Index as well as Modified Entropy index the values are relatively higher in both the categories of computations.Thus these indices also corroborate that the level of diversification in occupation due to gain in education and variation in employment status in non-farm sector is higher.It is observed that all the measures of diversification uniformly show the higher level of diversification from farming sector to non-farming sector in the study area.

Table No-4
Indices of Diversification Basing upon Employment and Educational Status

Sl. No.	Type of Diversification Index	Value of the Diversification Index basing upon Educational Status	Value of the Diversification IndexBasing upon Employment
1	Bhatia Index	24.84514	12.13875
2	Transformed Bhatia Index	0.751541	0.878613
3	Simpson Index	0.006183	0.006193
4	Herfindahl Index	0.065823	0.018007
5	Transformed Herfindahl Index	0.934177	0.981993
6	Entropy Index	0.587330	0.843430
7	Modified Entropy Index	0.975536	0.933935

Computed from the primary data collected from the field study.

Conclusions and Policy Implications

Occupational diversification is an indicator of the mechanism for economic growth. It shows that the process of structural change in the economy is on the way. Since most of the developed economies have passed through such processes of occupational diversification mostly from agricultural sector to secondary and tertiary sector during their process of economic development.

In the present study, it is inferred that the level of diversification in occupation from the agricultural sector to business activities representing secondary sector and other activities mostly relating to service sector is found to be higher in the study area. The diversification level due to both changes in education as well as the variations in employment opportunities is at a higher level. Thus, the first objective of the study to examine the level of occupational diversification from farm sector to non-farm sector due to achievement of education and training opportunities in the study area concludes affirmatively that the process of diversification is growing, which is always welcome for the economy of the State. The second objective of the study is to examine the level of diversification in income due to changes in occupation from farm to non-farm sector in the sample block of the study area. From the table no. 4, it can be located that the level of diversity in change of employment is found to be higher. The diversification indices have been computed basing upon the level of income from various employment opportunities among the respondents. Thus, it can be concluded that the level of diversification in income is also higher in the study area of the State of Odisha. Therefore, it can further be concluded that there is higher occupational diversification from farming to non-farming sector due to gain in education and training opportunities and it is followed by income diversity due to occupational diversification.

It calls for expansion of further technical training opportunities in the local areas of the State through separate policy measures of the Government. It can encourage further diversification which is an urgent necessity of the economy to accelerate the process of economic development.

Of course, the study calls for in-depth research to determine the determinants of diversification. Because the present study includes educational achievement as an important determinant although there are many other determinants in the farming as well as non-farming sector, which influence diversification of occupation.

References

1. *Adem, M., Tadele,E., Mossie, H. and Ayenalem, M.(2018): Income diversification and Security Situation in Ethiopia: A Review Study, Cogent Food and Agriculture (ISSN:2331-1932), Vol-4 (https://doi.org/10.1080/23311932.2018.1513354.*
2. *Barret, C.B., Reardon,T. and Webb, P.(2001): Non-Farm Income Diversification and Household Livelihood Strategies in RuralAfrica: Concepts, Dynamics and PolicyImplications,FoodPolicy,Vol-26.(www.elsevier.com/locate/foodpolicy)*

3. *Bhat, M.H. and Salam, M.A.(2016): An Assessment of nature and Extent of Crop Diversification across Agro-Climatic Zones of Jammu and Kashmir: Spatial and Temporal Analysis, IOSR Journal of Agriculture and Veterinary Science, Vol.-9, Issue-11 (www.iosrjournals.org).*
4. *Biswas, R.K.(2016): An Economic Analysis of Crop Diversification under Inorganic and Organic Farming in West Bengal, International Journal of Bioresource Science, Vol.-3 Issue -1.*
5. *Chadha, G.K.(1997): Access of Rural Households to Non-Farm Employment: Trends, Constraints and Possibilities in G.K.Chadha and A.N.Sharma (eds), Growth, Employment and Poverty: Change and Continuity inRural India, Vikas.*
6. *Govt. of Odisha (2015): District Statistical Handbook, Nayagarh, Directorate of Economics and Statistics, Odisha, Bhubaneswar.*
7. *Joshi, P.K., Gulati, A.,Birthal, P.S. and Tiwari, L.(2004): Agriculture Diversification in South Asia: Pattern, Determinants and Policy Implications, Economic and Political Weekly, Vol-39, No.- 24.*
8. *Lanjouw, J.O. and Lanjouw, P.(1995): Rural Non-Farm Employment: A Study,Policy Research working Paper No.1463, World Bank, Washington.*
9. *Pingali, P.L. and Rosengrant, M.W.(1995): Agricultural Commercialisation and Diversification: Process and Policies, Food Policy, Vol.-20 No.-3.*
10. *Saith, A.(1992): The Rural Non-Farm Economy: Processes and Policies, Geneva, ILO.*
11. *Sharad, R.(2006): Occupational Diversification and Accessto Rural Employment: Revisiting the Non-Farm Employment Debate, MPRA Paper No. 7870retrieved from https://mpra.ub.uni-muenchen.de/7870/*