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Intergenerational Economic Mobility: Methodology And Empirical Evidences From Kerala, India

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INTERGENERATIONAL ECONOMIC MOBILITY:
METHODOLOGY AND EMPIRICAL EVIDENCES FROM KERALA, INDIA

T.K.Sebastian[1]

Abstract

This paper examines the intergenerational development trajectory of a group of migrated cultivators. A methodology of intergenerational stages of progress is developed to measure the development attainments of households during each generation. The development mapping of the household is conducted using two variables, economic resources and human capital content. The quadrant wise movement over generations shows that there are some household specific economic and non-economic factors leading to the economic progress or descending or stagnancy. The human capital decisions of individual households at each stage of development have a bearing on the economic progress of the subsequent generation. The value attached to time, whether it is subsistence value or economic value, is one important factor determining the human capital decisions at each stage of progress of the households.

Key words: Intergenerational mobility, economic development, inter-generational stages of progress, economic mobility

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1 Introduction

Economic growth has been suggested by cross-national analysis as a factor closely associated with poverty reduction (Bhalla, 2002; Chen and Ravllion, 2001; Dollar and Kraay, 2002). However, the nature of macro-micro links that enable growth at a national level to translate into poverty reduction at household and individual levels is not well specified (Timmer, 1997; Wade, 2004). The present study looked into this matter both theoretically and empirically. The question is, what are the factors, which move the households in this process and what are the hurdles the households have to face in the process? Theoretically, the study examines the linkages between the two factors, human development (HD) and economic growth (EG) and various factors affecting the above two variables at household level. Empirically, the study analyses the actual household behavior in Kerala, taking a group of migrated cultivators as a case. Information regarding HD and EG interaction at household level of this socio-economic group is analysed to see the differences in the pace at which the families make use of the HD and EG options open to them.

1.1 Data

The information for the empirical part of the study is collected through a field investigation in the following way. The representative localities of migrated centers of Malabar in Kerala were selected as the study area. Stratification of the entire migrated belt of the region is made into two: a) leading centers, with accessibility to road, educational institutions, electricity, telephone, postal service etc. b) backward centers, which are generally lagging behind the leading centers in almost all the facilities mentioned above and further handicapped with hostile climatic conditions and proximity to forest and wild life. The settlers of these backward centers have to travel several kilometers to reach even an LP school. The sample is selected in such a way that 50 percent is shared by each categories. The households are randomly selected from the list of migrants provided by the earlier migrants of each locality. A questionnaire based field survey of 263 households is conducted during Oct-Dec of 2005[2].

[2] At present, there are about 40000 migrant families in the district of Kannur, from which it is calculated that during 1950s there may be around 4500 migrant households in the district, who constitute the population of our study.

1.2 Methodology

It is important to note that households do not only come out of vicious cycle, it can also fall into it. Eliciting information about escape and descent, carefully and systematically, from the members can re-construct the sequence of events associated with the pathways followed by different households (Krishna, 2006).

The economic resource (ER) along with the HD attainments of first generation is taken to locate the development quadrant of the households. It is compared with the development quadrant of the second generation of the same family. Again, the development quadrant of the third generation is compared with that of the second generation. Major events, interventions, distresses, involvements, achievements and failures of the households are used along with location-specific physical features and material wealth of the households to reconstruct its development trajectory over the generations.

An intergenerational-stages-of-progress method has been followed for drawing the development contours through which the households reached the present development quadrant. The development quadrant is the relative location of the households when plotted on a graph, in terms of HD and ER on X and Y-axis respectively. The entire plot area is categorized into four. First quadrant (north east), called virtuous, consists of households having ER and HD above the average of the group. The second (north west) comprises of households with ER above the average but HD lower than the average, hence the name ER-lopsided. The third (south west) diagonally opposite of the virtuous quadrant has households, which are lagging behind the average in terms of both parameters, and hence called vicious quadrant. The HD-lopsided (south east) quadrant is characterised with high standards in HD but less than average attainments in ER, lies diagonally opposite to the second quadrant.

Each quadrant points the relative position of the household in terms of education and physical potentials. For the migrant generation, the most important non-labour asset was land. Therefore, the landed property possessed by them is treated as the proxy for the economic standard and potential for further economic upward mobility. The land possessed varied from 200 acres to no land. The average land possessed by the first generation was 14 acres. The HD of the first generation was assessed in terms of the years of schooling attained. The migrated generation received their education from the

place of origin and it varied from no schooling to 8th standard. The average education was 2.2 years of schooling. If the household average education of the migrated generation and land area possessed were greater than the averages of the entire group, then the family will be considered as in the virtuous quadrant (north-east). A household with a less than average level of both the above assets will be placed in the vicious quadrant (south-west). A household in the economic resources lopsided quadrant (north-west) will have land area greater than the average 14 acres but the average HD less than 2.2 years of schooling. The households in the diagonally opposite quadrant (south-east), i.e., lopsided HD quadrant, will have HD above the average but physical asset lower than the average of 14.

Development spotting of the second generation is also carried out on the basis of above principles. The average HD status of the second generation is seven years of schooling and the average index of economic resources (ER) is 4.8. As did in the case of first and second generation, the developmental spotting of the households at the third generation is also done.

1.3 Measurement of Economic Standard

The living standard measurement can be accomplished with an evaluation of the per head income of the members. But this method is particularly inapplicable in the case of cultivators. The farmers are not habituated to keep the regular accounts. Another issue is the prejudice of the respondents regarding further enquiry about the sources and possibilities for imposing tax in future. The households receiving income from abroad are particularly hesitant to reveal the exact amount. Therefore, an alternative method for evaluation of the living standard of the households is developed. Four items are identified as necessary components of the new index of living standard of the cultivators. They are a) the land area possessed b) per head consumption expenditure c) quantity of consumer durables in the possession of the household and d) the quality of the dwelling[3].

These four variables are closely linked to the life pattern of the migrant cultivators in North Kerala and can be taken as the proxy for the living standard of a household. The cultivators are sentimentally attached to the land (even if the main source of income is

[3] Also see Saleena (2005) for a detailed discussion on the socio-economic characteristics and current development problems of the migrant cultivators in Kannur District.

from other sectors) and keep an urge to increase it in quantity and quality terms, therefore, the incorporation of its size as an item is justified.

Table 1 - The General Picture of the Economic Standard

Components	*Descriptions*		*No. and % of households in each category*	
	Features	*Weight given*	*No of houses*	*%*
Consumer durables	1. Minimum of essential kitchen utensils only	1	38	14.4
	2. Furniture, coats, and items above minimum essentials	2	76	28.9
	3. Electronics durables (colour television, refrigerator, washing machine), and /or agro-related durables like pump set, rubber roller etc.	3	111	42.2
	4. Private four wheel vehicles, air conditioner (Luxury)	4	38	14.4
Dwelling conditions	1. Very poor house – require immediate renovation, temporary house not suitable for the entire seasons of the year, houses in the verge of collapse	0	4	1.5
	2. House without proper sanitation, flooring with cow dung, shed type but can be used over the year	1	31	11.8
	3. Tiled roofs, cemented floor, suitable for all seasons, sufficient sanitary facilities	2	145	55.1
	4. Concrete with cement flooring, single storied, sufficient bed rooms and space for study purpose	3	60	22.8
	5. Luxury houses, either two storied or single storied with marble flooring and the like	4	23	8.7
Land	1. No land – or in the threat of ejection	0	5	1.9
	2. Less than 50 cents of land	1	38	14.4
	3. 50 cents to 1 acre	2	16	6.1
	4. One to two acres	3	76	28.9
	5. Two to four acres	4	72	27.4
	6. Above four acres	5	56	21.3
Monthly expenditure per head	1. Up to Rs 250 per month	1	60	22.8
	2. Rs. 250 to Rs.350	2	64	24.3
	3. Rs.350 to Rs.500	3	88	33.5
	4. Rs.500 to Rs. 750	4	27	10.3
	5. Above Rs. 750	5	24	9.1

Source: Estimated from the field survey

The size of the land is indexed in a six-point scale in ascending order from 0 to 5. The expenditure is a function of the income level enjoyed by the family and explains the living standard and the households are categorized into five, on the basis of per head expenditure, and each category is assigned index weightage from 1 to 5. The consumer durables possessed by the family like, rubber roller, sprayer pump, television,

refrigerator, washing machine etc. with family is another good indicator of the purchasing power of the household (table 1).

A five level categorisation of the households has been made with weightage from 0 to 4. The quality of the housing is the next concern of the migrants; hence, it is incorporated to explain the economic standard enjoyed by the family. The housing quality is grouped into four from very poor to two-storied high quality one. Each group is given the value ranging from 1 to 4.The household which is very poor in all the above four components will get the lowest index of 2 and the household which excels in all the four will get the highest possible index of 18. The average of the indices of the 263 households is derived as 10.7 (table 1).

2 The Household Level Functioning of the HD-EG Chains

In the literature, studies like Wheeler, 1980; Wha-Lee, 2005; Ranis, 2004; UNDP, 1996 and Ranis, Stewart and Ramirez (2000) brought out the channels through which both HD and EG interact at national and unit level. In the following discussions, we are examining the farmer specific links and the connection strength between the two variables among the migrant cultivators.

2.1 Link I – Economic Improvement Leading to HD

The economic improvement of the households and society contributes towards their HD via individual household allocation of scarce resources and collectively by social efforts and allocations. The allocation of household financial resources towards improving HD is a function of total expenditure, of how much of this flows to HD sectors and of the way in which it is allocated within these sectors.[4] In Brazil, a ten percent increase in income has resulted in 5.8 per cent improvement in educational attainments. As families' income rise, they can spend more on school materials and they are in a better position to socially contribute for better HD facilities.

The positive relation between income and cognitive levels of the school children is a well-established fact (UNDP, 1996). This is due to the ability of richer families to create an environment more conducive to learning at home and at school. This is particularly true in the case of poor farmers. They could give more priority - *resource*

[4] The significance of expenditure choices for improving HD at macro level comparing Kenya and Malaysia is presented in Ranis, Stewart and Ramirez (2000).

wise and time wise - when they overcome poverty. The cognitive level improvements are attributable also to the improved quality of food intake. The families could provide balanced food to the children as a result of the financial status improvement attained. The absence from the school due to ill health and malfunctioning are brought to the minimum as a result of the health improvements. In short, the increased income of the household contributes to the HD by ensuring food security, medicine, meeting the direct and indirect expenses of education etc.

The subsequent, but equally important linkage is through the *'resource time'*. The household allocation of time has got an influence over HD. How much of the time of the children at school going age is freed from other household responsibilities and how intensively they could make use of it. The freeing of women from the field to managing household, raising children, assisting the children in their home works, clarifying doubts, better care for the academic development etc., provide much strong HD outputs. The participation of women in voluntary organizations, credit unions, social activities, attending classes, etc. improves the financial security of the household and enlarges the social and cultural capital base of it.

A closely related issue is how much of the above resources are consumed out due to ill health of the family members[5]. The underlying determinants of these allocations are the economic standard of the household, the degree of altruism followed and general health standard of the family members. Health and nutrition is potentially important HD component contributing to household productivity. And its opposite is also true – the household economic position affects the health attainments via health promoting consumption at different income levels. Both these factors are undoubtedly charecterised by thresholds beyond which their effects on output are negligible. The provision for health and nutrition is influenced by the accumulation parameters of the household. Education through its response role influences the maintenance of health and nutritional standards[6]. Therefore, it is consistent to take education as a proxy for HD[7].

[5] Mayer's (2001) argument on the health of the grand parents give us further insight into the inter-linkages between family economics and HD. "healthier grand parents may also contribute to strengthening the economy of younger families, burdening young adults less at the time when they most need to invest in children."

[6] See e.g., Rosenzweig and Shultz (1982); Wolfe and Behrman (1987): Barrera (1990) for further discussion on the health and education interaction.

[7] In households whose members endure ill health and nutritional deficiency, it is plausible to suppose that productivity is below its potential level with existing stocks of capital and effective labour. The evidence

The social capital and association among migrants are other strong pillars leading to the infrastructure for HD. The school buildings, libraries, roads, culverts etc. were built and maintained on a voluntary basis. The informal arrangement of 'labour exchange' has been applied at the social level also. The feeling of togetherness and need for social action led towards developing these social capital. This is nothing but the practice of sharing their incremental income and leisure time (due to reduced subsistence value of time) for the common good and other members of the society. All these productive involvements contributed to the education of the children. The experiences of the migrants are comparable with that of the Republic of Korea, which over the past three decades has had the largest increase in mean years of schooling in the world, achieved much of this through private spending (UNDP, 1996).

The third generation compared to their parental generation is freed from the role of baby sitters due to the increased application of the family planning methods by the second generation. There are examples from the field to support the arguments that the parents discontinued their education due to unfavorable family pressures and maintained the urge to compensate the missed opportunity by providing the best to the younger generations. This inspirational factor prompted the parents to send their children to school, even if the family is facing financial difficulties. Of the sample150 couples adopted permanent family planning methods, among them 18.6 percent considered the education of the children as the first priority, 52.6 percent perceived the economic condition as the important motivation to do so, the remaining 28.8 percent see other reasons (health, general norm, civic consciousness etc.) as the primary concern.

2.2 Link II - HD Leading to Economic Progress

Higher levels of HD itself enhance the productivity of the farm household production unit. The educated households must be more scientific in their utilization of land and resources. In the purchase and use of farm-related inputs their education supports more prudent, economic and scientific approaches. In the case of migrant farm cultivators, the HD along with enhancing the farm output and income influenced the

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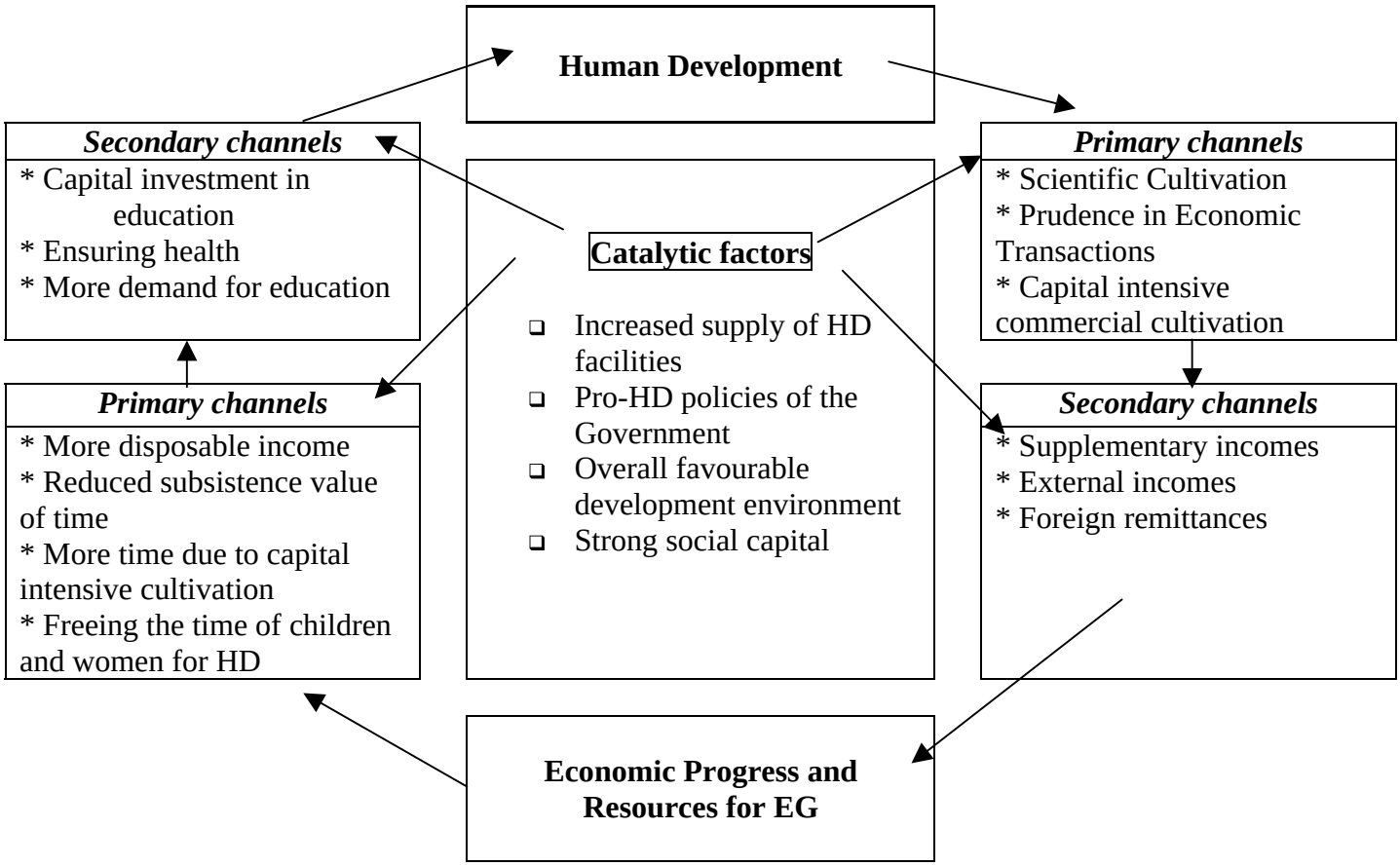
doesn't suggest a rejection of the hypothesis that these factors can make a difference. (Also see, Wheeler, 1980 for a macro level analysis of the issue.)

overall economic performance through other means. Very concrete examples from the field are pointed out below.

a) Entrepreneurship: Instead of depending directly on the income from the farm, entrepreneurial initiatives from the farm households are observed. There is no regular pattern or systematic enterprises but opening up of printing press, ornamental fish cultivation and sale on a large scale, bio-fertiliser processing and distribution, production of ayurvedic medicines, taxi operations, poultry farm, cattle farm, beekeeping etc. are the different types of supplementary income generating projects noticed. The initiatives and management of these units are from the educated hands and not by external professionals. Hence the HD levels have a bearing on the entrepreneurship of the group under study.

Figure 1. A General Model of HD-EG Linkages in Farm Household Production Unit



b) Non - farm income: Another string connecting the HD to levels of household income is the source and amount of non-farm income. It was noted that 16 percent of the current workforce is employed away from the native locality. The income earning power of this group is a direct function of their education, training and skill base. The foreign

remittances brought home by the nurses and other skilled personnel are further examples to substantiate the argument.

c) Social actions: The upper hand enjoyed by the educated in social actions, assimilating knowledge, dealing with government officials etc. are the specific areas where the less educated perceived themselves as their handicaps, which had a crippling effect on their economic functioning. There is a specific example where the student could not avail the subsidy just because the parents are illiterate and socially introvert, and unaware of the means to attain it.

d) Health effects: The impact of education on family planning and spacing of children have bearing on health and productivity of the household members. This role of education further influences the per capita income/expenditure via the denominator.

These specific linkages discussed above are not exhaustive, and there are some catalytic factors, which can fasten the interactive process between the two variables at household level. A simplified model of above linkages is presented in figure 1.

In the long run EG and HD generally move together and tend to be mutually reinforcing. Cross-country studies found that economic growth has a positive impact on several HD indicators[8]. But it doesn't mean that, EG will invariably and automatically get translated into HD, if other important factors are not in place. The way in which growth translates in to poverty reduction and HD depends on the expenditure pattern of the households – in particular on the egalitarian allocation of the time and other resources; whether it is guided by future vision or temporary gains. If the expenditure and allocation mix is HD-oriented rather than lopsided, then the household is more likely to improve than if the increased disposable income is expended on consumption of alcohol, tobacco etc.

2.3 Catalytic Factors

There are exogenous variables also which are conducive to facilitate the process. These variables are kept outside the purview of the present study because except locational factors, others are equally applicable to the entire community. Differences are there only in the dynamism in assimilating and capitalizing the opportunities. The differences in economic progress across households are not only due to the level of inputs

[8] The importance of economic growth for raising resources to promote HD at macro level is illustrated in Ranis, Stewart and Ramirez (2000) comparing Botswana and Sudan.

but also by how effectively they are used and for what purpose. The difference derives from people's choice and behaviour pattern. Therefore, an examination of the expenditure pattern and significance attached to availing HD opportunities could explain the differences in attainments to a great degree.

The parental motivation along with infrastructure facilities played a significant role in attaining a relatively better educational level by the third generation. The overall societal environment is a significant exogenous factor, which varied from region to region.

Another factor is the social leadership and social capital of the group. The church leadership, during the early decades of migration, has helped in forming the feeling of diaspora and social psyche among the migrants. Had it not been for the openness of the migrants to the opportunities offered by the state, the development attained would not have been possible to the fullest. The pro-HD and Economic progress policy followed by the governments, social actions and the democratic set up are other vital catalytic variables.

2.4 The Combined Picture of the HD and Economic Standard

This section goes deep into the role of HD as a "source of economic progress". We entertain the hypothesis that HD variables have an impact on the productivity of the households. The increased disposable income allows families to purchase more HD enhancing goods and services.

To evaluate the hypothesis concerning the impact of HD on economic improvement one has to take simultaneity into account; because economic well being depends on other non-HD variables, and many of them are exogenous to the family production unit also. The EG-HD linkages may be indirect through the effect of HD on investment behaviour. Therefore, role of human capital variable has to be studied in two contexts, a) accumulation and b) response role.

Within the productive period of a generation, the income, housing conditions, expenditure standards, assets, and the human resources possessed change in response to market conditions (both labour and goods), human development infrastructure, government policies and macro developments. These rates are, in turn, influenced by the full set of induced changes. All the non-human capital variables, which are indicative of the development levels of the household, are fixed in the short run and therefore

conveniently be referred as ‘accumulation parameter’. Similarly human capital measures induce and join the different living standard variables and hence can be treated as ‘response variable’ (Wheeler, 1980*).*

The mutually reinforcing interaction of between HD and EG at the farm household level means that it may be on a mutually reinforcing upward spiral, with high levels of HD leading to high living standards and high living standard in turn further promoting HD. Conversely, weak HD may result in low growth and consequently poor progress towards HD improvement. The strength of the links in the two chains influences the extent of mutual reinforcement between HD and EG, in either direction.

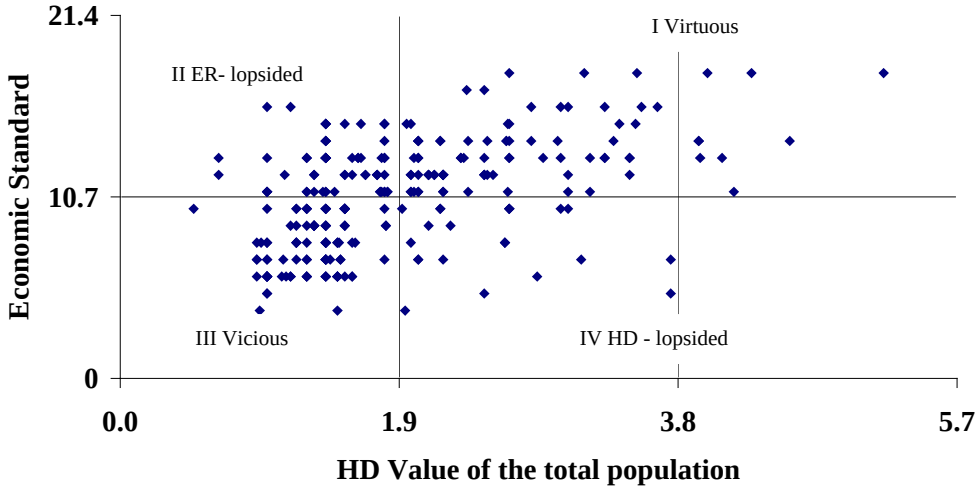
Therefore, households can be usefully classified into four categories as did in the case of countries, virtuous, vicious and two types of lop-sidedness, i.e., lopsided with strong human development and weak economic basement – called HD-lopsided and lopsided with strong economic standard and weak HD - called EG-lopsided. In the virtuous cycle case, good HD enhances economic standard, which in turn promotes HD, and so on. In the vicious cycle case, poor performance on the HD tends to lead to poor economic performance, which in turn depresses HD achievements, and so on. The strength of the linkages in the two chains decides the interaction between the two variables either in positive or dampening direction. Where linkages are weak, cases of lopsided development may occur. On the one hand, good economic standard may not bring about good HD, if, for example, there are weak linkages such as high expenditure ratio on demerit goods like alcohol, internal disturbances in the family fabrics, locational disadvantages etc. On the other hand, good HD performance may not generate good economic performance if there is a dearth of complementary resources like income, mobility in search of job opportunities, physical health etc. Such cases of lopsided development are unlikely to persist. Either the weak partner in the cycle eventually acts as a brake on the other partner, leading to a vicious cycle case or, if linkages are strengthened a virtuous cycle case results (Ranis, Stewart and Ramirez, 2000).

3. Mapping the Development Attainments

In the developmental process what a society accumulated as capital in terms of both physical as well as human capital is reflective of its inner urge to move forward in the developmental track. The first generation started with an average education of 2.2

years of schooling and an average landed property of 14 acres per household. The current status of the development attainments in both these aspects of the 263 households is depicted in figure 2. The horizontal grids line at 10.7 represent the average of the index of the economic standard of all the 263 the households and the vertical line passing through 1.9 represent the average of human development values of the 263 households.

Figure 2 Avarage HD value and Economic standard



Source: Field survey

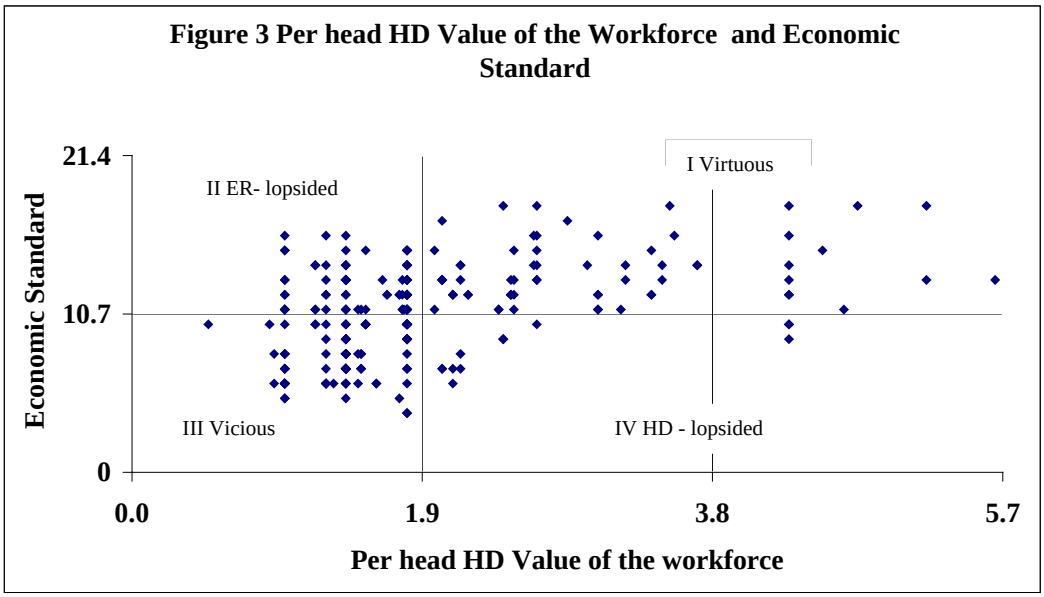
The largest portion of 96 households (36.5 percent) falls in the third category. These households have both HD and physical economic potentials less than that of the societal household average. In this case the two variables are not in a position to contribute for further betterment of the other. The household property, assets and expenditure are not sufficient enough to attain an average HD. With the relatively poor HD the family is further lagging behind in the labour market and hence the income earning potentials remain sub optimally utilized, hence the household is further forced to be in the vicious cycle.

The virtuous quadrant occupies 86 households (32.69 percent). Their main features are the strong positive linkages between HD and economic performance. The high HD standards lead them to attain corresponding economic standards. The higher standards in HD have been attained also through the higher economic footings, which they enjoyed. Hence it can logically be concluded that the virtuous status attained by these households are through a process of simultaneous interaction of the two variables

among themselves. Therefore, this quadrant may rightly have the nomenclature 'the ideal zone'.

Households having lopsided economic standard is the third category in terms of size, which comprise of 59 (22.4 percent). In terms of assets and other indicators of living standards they are above average, but in terms of HD, their attainments need further uplifting, at least to reach the average of the societal standard. The sustainability of the high standards in the economic front requires a corresponding HD progress in future. The diagonally opposite quadrant is charecterised by an above average performance in HD but less than average levels in economic indicators. This segment constitutes 22 (8.4 percent) households. These households, though attained high HD levels, face shortfalls in economic front. The continuation of the HD for long requires an economic base sufficient to support it in future.

Figure 3 Per head HD Value of the Workforce and Economic Standard



Source: Field survey

The above discussion is based on taking the average HD of the entire household. A question reasonably be raised is against the inclusion of unproductive members in the analysis. But the assumption is that those who are not directly engaged in the productive activity, but as an active member may positively contribute his/her experiences and HD attainments towards the productivity of the active members[9].

[9] See Mathur and Mamgain (2004) for the reasons for considering the HD attainments of the non-working members in the calculation of human capital content of an economy.

A further disaggregated examination taking the HD aspect of the workforce alone is presented for comparing the human capital content of the present workforce with the household living standard. There is a general movement from the virtuous and HD lopsided quadrant to the other two segments. But the average HD remains the same. This is because the more educated student community and less educated aged members are exempted from the calculation. The average educational standard of the workforce is the same as that of the entire community.

The correlation between average HD of labour power and ER of the household is derived as 0.447363, while that of the ER and HD per member is 0.500874. Both are statistically significant at the level of 5%. The results support the hypothesis of mutually reinforcing interaction between HD and economic standard. The trend lines in both cases are positively slopped and indicative of the togetherness of the two variables.

4. The Process of Change and Development

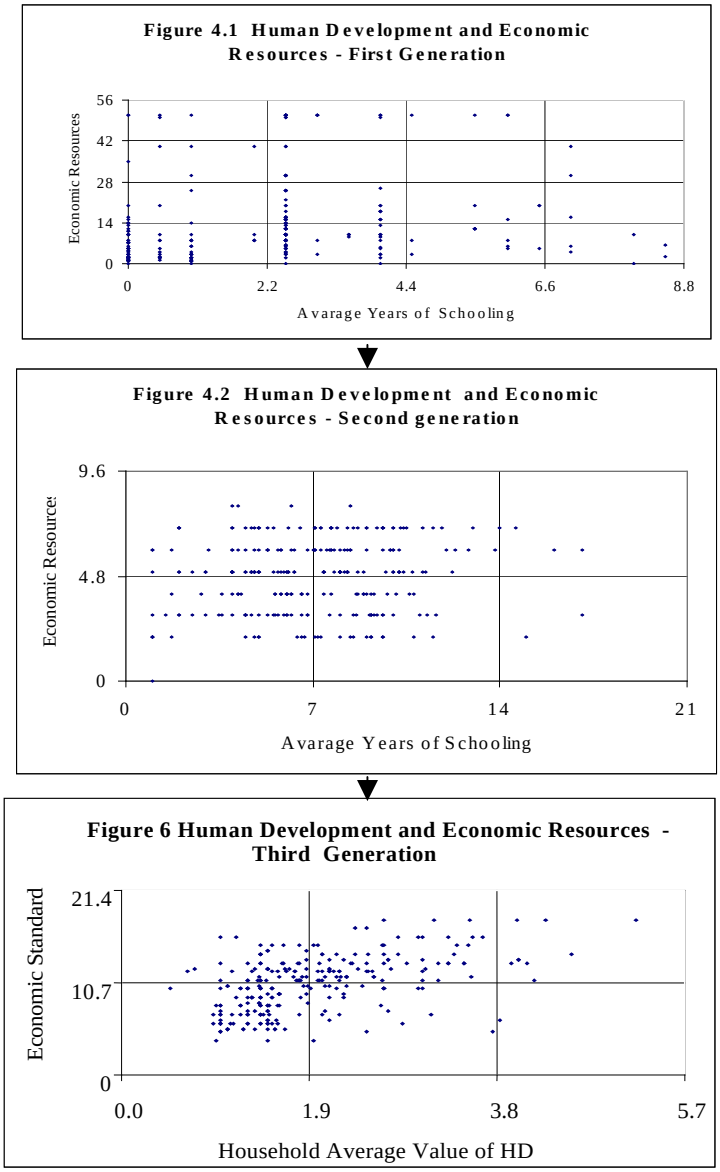
The thrust areas probed in the present section are:

a) The development trajectory of the households over generations,
b) Leakages in the development circuits, and
c) Specific catalytic variables influencing the mutually reinforcing interaction between HD and economic progress over generations.

It is obvious, and all households agreed, that the general economic conditions of the migrants improved from first to second generation. The endogenous economic conditions include, food intake, clothing, housing, security – both economic and non-economic, health facilities, education and freedom from the survival struggles. The exogenous economic circumstances include facilities for transportation, credit, schooling, treatment, marketing the products, etc. In most cases, people agreed on further economic advancement from generation II to III. Yet some households (not an insignificant number) experienced stagnancy in terms of living standards and another category had experiences of going steps backward. We have categorised the sample households into three groups on the basis of economic movement from II to III generation: a) improvement, b) stagnancy, and c) descending.

4.1 The General Development Trajectory

There have been wide spread inequality in the attainment of overall economic standard across households. But there is a general convergence towards the average value of both the variables – ERs and HD – by the second generation. Figures 4 to 6 show a



narrow re-inforcing interactive relation between two variables (ERs and HD) for first generation[10]. The relationship is clearer for second generation[11]. For the third generation

[10] correlation coefficient 0.119361
[11] correlation coefficient 0.209069

the relationship is proved without doubt[12], with strong positive correlation between the two.

The overall educational conditions at the place of origin and educational supply factors till the mid of 20th century explain the lower educational standards of the first generation. Their prime concern in the new land was to apply the available manual labour. The interactive relation between the variables HD and ERs is not very obvious in the case of the first generation, because the index of ERs (the land possessed) is not closely related to their level of education[13].

For the second generation also the major component in the index of ERs is land possessed. The HD attainment is measured in terms of years of schooling. There is general move towards the average values of both these variables, mainly due to: (a) Fall in the size of land holdings of the second generation, whose first generation possessed large land area; subdivision among the children; and land reforms in the State of Kerala, (b) Possession of at least a small holding by the second generation, whose first generation possessed no land and (c) Distribution of the land among others - relatives or friends at the place of origin - to attract neighbors at the new land[14].

The movement towards average HD is mainly due to the widespread school facilities over the migrant belt, which opened the avenues for institutional education at least up to VIIth standard at the reachable distance. The ER base of the second generation is a direct function of the land possessed by their elder generation and a negative function of the number of siblings. The material base of the household is a proxy for the extendibility of the children for schooling. If the household unit is poverty-stricken, then it may demand the services of their children for farm production activities, which in turn can exercise negative influences over the educational levels and attainments. On the other hand, households with sound economic footings could relieve the children for productive consumption like education. Therefore, HD attainments of the present generation are a

[12] Correlation coefficient 0.500874

[13] In a way, it can be presumed that the land bought in the centers of migration is reflective of their economic standard and wealth possession in Travancore (place of origin). This material standard has influence over the educational level attainable. Hence one can correlate the land bought in Malabar with their educational level. But the presence of such strong correlation is not observed in our study.

[14] Big landowners particularly practiced this, because they could not perceive any economic value for the unmanageable land. Even if they realised the economic side, the isolated life in the midst of wild animals and epidemics forced them to give up a portion of the land, instead of living in big farmhouse, to get neighbors.

function also of the ERs of the previous generation. The theoretical proposition of the positive interactive relation between ERs and HD is empirically established with the third generation, which is crystal clear in figure 6.

4.2 Generation-Wise Analysis of Development Process

Although there is no automatic link between HD and economic progress, as is evident in lopsided development, the lopsidedness doesn't persist for long. Of the 42 households that started the migrated life in the ER lopsided quadrant, only seven (16.6 percent) persistently remained in the same quadrant over the three generations. There were 109 households in the diagonally opposite – HD lopsided quadrant. Of them, 105 households moved out and only four remained through out the generations. Hence the macro feature of instability of the two lopsided quadrants (Ranis, Stewart and Ramirez, 2000) is invariably reflected in the micro instances also. Generation by generation analysis also shows that while some households consistently appear in the strong or weak link quadrant, in each of the three generations, only a total of 11 households remained in the unbalanced quadrants over generations, for all others, HD and ER eventually converge towards strong or weak link (also see table 2).

There were 45 high potential (both ER and HD terms) households in the virtuous quadrant at the time of first generation. Of them 9 (20 percent) remained within the quadrant over each of the three generations. These 9 households maintained the mutually benefiting interactions and remained in the upward spiral. This means the potentials for development in terms of ERs were utilized for availing more education to the children. This is made possible by the relatively lower 'subsistence value' and high 'economic value' of time for them. Therefore, the children were relieved from the farm related activities to participate productive consumption like education. The resultant educated workforce was able to respond positively to the changing labour market demands and moved to the non-traditional occupational sectors. The continuous flow of non-agricultural income provided the financial base for transforming the agriculture from subsistence to commercial cultivation. Hence the strong linkage between the two variables functioned positively towards maintaining the household in the upward spiral of development.

There were 67 households in the vicious quadrant at the initial years. Among them 5 (7.5 percent) could not break the vicious circle even unto the third generation.

Their development potentials in terms of ERs remained poor and hence could not afford to obtain the education. The 'subsistence value' of time was also very high for them. Therefore, even if education is freely and equally available for all, this group could not capitalize the opportunities fully. The services of the school going children is also

Table 2 Quadrant-Wise Movement Pattern from First to Second and to Third Generation

Movement	*Households*		*Movement*	*Households*	
II-I-I	5	II - ER LOPSIDED QUADRANT	I-I-I	9	I - VIRTUOUS QUADRANT
II-I-II	4		I-I-II	6	
II-I-III	3		I-I-III	4	
II-I-IV	0		I-I-IV	3	
II-II-I	11		I-II-I	6	
II-II-II	7		I-II-II	4	
II-II-III	3		I-II-III	5	
II-II-IV	1		I-II-IV	1	
II-III-I	0		I-III-I	1	
II-III-II	2		I-III-II	1	
II-III-III	1		I-III-III	2	
II-III-IV	0		I-III-IV	0	
II-IV-I	4		I-IV-I	1	
II-IV-II	0		I-IV-II	0	
II-IV-III	1		I-IV-III	2	
II-IV-IV	0		I-IV-IV	0	
Total	***42 (16%)****		***Total***	***45 (17%)****	
Movement	*Households*		*Movement*	*Households*	
III-I-I	9	III – VICIOUS QUADRANT	IV-I-I	9	IV - HD LOPSIDED QUADRANT
III-I-II	2		IV-I-II	10	
III-I-III	4		IV-I-III	6	
III-I-IV	0		IV-I-IV	2	
III-II-I	9		IV-II-I	6	
III-II-II	7		IV-II-II	5	
III-II-III	7		IV-II-III	9	
III-II-IV	3		IV-II-IV	2	
III-III-I	2		IV-III-I	6	
III-III-II	4		IV-III-II	2	
III-III-III	5		IV-III-III	13	
III-III-IV	2		IV-III-IV	2	
III-IV-I	1		IV-IV-I	7	
III-IV-II	2		IV-IV-II	3	
III-IV-III	8		IV-IV-III	23	
III-IV-IV	2		IV-IV-IV	4	
Total	***67 (25.5%)****		***Total***	***109(41.5%)****	

Source: Field survey

* Totals show the number of households in each quadrant during the first generation, and figures in the parenthesis are percentages of the quadrant total of the grand total.

demanded for the household activities and hence could not realize the long run 'economic value' of their time. The backwardness in the educational front crippled their gains in the labour market and the ER base further worsened over generations. The weak linkage worked against their upward development mobility. Therefore, this quadrant may be rightly termed as the area of relative 'economic inertia'.

The results suggest that good economic base (ERs), not accompanied by increases in HD, may prove to be ultimately unsustainable. The behaviour of the HD lopsided quadrant proves that an early achievement in HD is highly helpful in taking advantages of the labour market opportunities. But there must be a corresponding ER base to support the high HD to sustain. Another conclusion is with regard to the development sequencing. HD seems to be a necessary prerequisite for long-term sustainable overall development. The HD functions in the above formulation as human capital. Therefore, the changes in human capital and labour quality (resulted from HD) matter for the economic performance. That is why HD determines the sustainable growth path of households, societies and nations.

4. 3 Quadrant-Wise Movements of Households

What happened to the households during the inter-generational process of development at each stage? This section probes answers to the above question posed.

a) *Virtuous quadrant with high potentials for development.* The virtuous quadrant is inherently characterized with upward development mobility. It is the segment with high development potentials and balancing of the two fundamental variables HD and ERs. Of the total 45 households (17 percent of the grand total) started in this category, 9 (20 percent) could maintain the high development potentials during each of the three stages and others slipped into vicious or lopsided quadrant by second generation. Among them 8 households could reach back to the ideal virtuous quadrant by third generation.

b) *ER lopsided unbalanced quadrant.* This zone comprises of 16 percent (42 households) at the initial years of migration. Among them 47.6 percent (20 households) reached the virtuous quadrant by the third generation. Just as the other lopsided segment, it also showed high degree of long run instability, with only 7 households remaining through out the three generations.

c) *Vicious quadrant of relative 'economic inertia'.* There were 67 households (25.5 percent) in this quadrant during the initial years. Of them 21 (31.34 percent) had reached

the virtuous quadrant by third generation; 24 (35.82 percent) reached back the same segment by the third generation. Of the 67 households, 5 households (7.4 percent) remained within the area through out.

d) *HD lopsided unbalanced quadrant.* This quadrant encompassed 109 households (41.5 percent) at the beginning. The characteristic of long run inconsistency of this quadrant is observable from the shift away of 105 households over the generations. Of the moved out, 6 households reached back in the same development ground by the third generation, and 28 households (25.6 percent) reached virtuous. The probability of a household to reach the virtuous quadrant from the HD lopsided quadrant is as low as 25.6 percent in comparison to a household from ERs lopsided quadrant, which is as high as 47.61 percent. In that sense this quadrant is less directed towards the virtuous quadrant, and can logically be concluded that HD taken alone, with out sound economic base, a household could not move on to the virtuous quadrant.

A question to be answered at this juncture is; why some households remained in the vicious cycle over the three generations? What were the hurdles in their way out? As a corollary to this question, there is another issue: How could a group of 9 households maintain themselves in continuum of higher development track? The mirror image of answer to any one of these questions itself is the answer to the other.

4.4 Further Probe into the Household Movements from Second to Third Generation

Of the 43 households in the vicious quadrant during the second generation 48.8 percent remained within the boundary showing further incapability to break the shell, 20.9 percent entered in to the high potential development zone of virtuous quadrant and another 20.9 percent into lopsided in terms of ERs. The smallest percentage of 9.3 became HD lopsided.

There were 86 households in the ER lopsided segment at the second generation. Out of them 23 (26.7 percent) remained within the quadrant showing developmental rigidity, 37.2 percent moved into the virtuous quadrant, 27.9 percent in to the vicious quadrant and 8.1 percent into the HD lopsided zone. During the period of second generation, there were 76 households in the virtuous quadrant. Of them 57.9 percent could not maintain their development status while moving towards third generation, 28.9 percent slipped into the ERs lopsided quadrant, 22.3 percent into vicious and 5.6 into HD lopsided area.

Table 3 Outflows from Second to Third Generation

Outflows	***Households***		***Outflows***	***Households***	
II-I	32 (37.2)**	II - ER LOPSIDED QUADRANT	I-I	32 (42.1)	I -VIRTUOUS QUADRANT
II-II	23(26.7)		I-II	22(28.9)	
II- III	24 (27.9)		I-III	17 (22.3)	
II-IV	7 (8.1)		I-IV	5(6.5)	
Total	***86 (32.6)******		***Total***	***76(28.8)*****	
Outflows	***Households***		***Outflows***	***Households***	
III-I	9(20.9)	III – VICIOUS QUADRANT	IV-I	13(22.4)	IV - HD LOPSIDED QUADRANT
III -II	9 (20.9)		IV- II	5(8.6)	
III-III	21 (48.8)		IV-III	34(58.6)	
III-IV	4(9.3)		IV-IV	6 (10.3)	
Total *	***43(16.3)*****		***Total***	***58(22.05)*****	

Source: Field survey
* Totals show the number of households in each quadrant during the second generation.
** Figures in the parenthesis are percentages of each quadrant total.
***Figures in these parentheses are percentages of the grand total.

HD lopsided quadrant comprised of 58 households at the stage of second generation. Of them 58.6 percent (34 households) had fallen back to the vicious circle, 22.4 percent (13 households) has succeeded in reaching the high development zone, 8.6 percent went to the ERs lopsided segment and 10.3 percent remained in the same region.

Table 4.3 Inflows to Different Quadrants - Second to Third Generation

Inflows	*Households*		*Inflows*	*Households*	
I- II	22 (37.2)**	II - ER LOPSIDED QUADRANT	I - I	32 (37.2)	I -VIRTUOUS QUADRANT
II-II	23 (38.9)		II - I	32 (37.2)	
III-II	9 (15.2)		III- I	9(10.4)	
IV-II	5 (8.4)		IV - I	13 (15.1)	
Total	***59(22.4)*****		Total	***86 (32.69)*****	
Inflows	*Households*		*Inflows*	*Households*	
I-III	17 (17.7)	III – VICIOUS QUADRANT	I- IV	5 (22.7)	IV - HD LOPSIDED QUADRANT
II -III	24 (25)		II - IV	7 (31.8)	
III-III	21 (21.8)		III - IV	4 (18.8)	
IV-III	34 (35.4)		IV - IV	6 (27.2)	
Total *	***96(36.5)*****		***Total***	***22(8.4)*****	

Source: Field survey
*****Totals show the number of households in each quadrant during the third generation.
******Figures in the parenthesis are percentages of each quadrant total.
***Figures in these parentheses are percentages of the grand total.

Another way of looking at the development pattern is to assess the quadrant wise contributions received towards the virtuous circle, which is the 'ideal zone' and towards the vicious circle, which is the 'dullest area' from the developmental perspective (table 4).

The largest portion of the third generation in the virtuous area came from two segments, virtuous itself and from ERs lopsided (37.2 percent each). HD lopsided quadrant contributed 15.1 percent followed by the lowest contribution from vicious zone, i.e., 10.4 percent. Households in the vicious quadrants find it most difficult to enter the virtuous quadrant. The lowest contribution by vicious quadrant to the virtuous quadrant reaffirms the difficulties of direct escape from the dullest to the ideal state of affair.

The diagonally opposite zone – vicious cycle - received the largest portion from HD lopsided segment (35.4 percent). The next important inflow had taken place from the ER lopsided segment (25 percent). Vicious zone itself is the third biggest contributor (21.8 percent), followed with the lowest contribution from virtuous zone. It is academically important to see the reasons for the backward flow from virtuous to vicious quadrant.

The highlight of the above discussions are; a) the movement towards virtuous quadrant is easiest from ER lopsided and toughest from vicious quadrants b) the overall economic progress of the parental generation need not automatically be handed over to the younger generations.

4.5 Directions and Turning Points in the Development Trajectory

A thorough examination of the track records of the households is made to identify the reasons for the differences in the pace with which the households perform in the race. Major development patterns observed are:

a) Those in the virtuous quadrant at third generation (I)
b) Those in the vicious quadrant at third generation (III)
c) Steady winners in three generations (I-I-I)
d) Worst performers in three generations (III-III-III)
e) Sudden descenders by the third generation (I-III)
f) Sudden leapers by the third generation (III-I)

All other movements fall between these points of boundary mark. The major stress factors considered are: the location factor, consumption of alcohol, occurrence of distress

events (like unnatural deaths, anti social events and resettlements), indebtedness and intergenerational carry over of debt burden. The major complimentary (as well as outcome) variables studied are landed property and regular non-traditional income sources both internal and foreign. One subjective query is also made to know the stakeholders' perceptions about the impact of over consumption of alcohol on the long run development potentials.

At the first level, a comparison between the two broad patterns has been made, i.e., households which remained in the virtuous or vicious quadrants for all the three generations. The first point of difference is observed with the location factors. Of the households in the virtuous category at the third generation, 61 percent are settled in the geographically privileged centers, while 31.89 percent of their counter parts in the vicious zone have this location-wise advantage (also see patterns 1 and 2 of table 5).

The second point examined is the impact of over consumption of alcohol on the household attainments. Those belonging to the virtuous category, 46.5 percent have gone through these adversities. At the same time, 65.6 percent of the vicious zone has been affected with this problem.

Further probe into the extent of the impact of this consumption factor had on the family attainments are made using the subjective evaluations of the respondents. In both categories together, 19 households (10.3 percentage) have been affected at mild level, 14 households (7.6 percentage) have been affected considerably and 68 households (37.3 percentage) have been at a severe degree. A quadrant wise impact shows that in the virtuous quadrant 8 households (9.3 percentage) mildly, 5 households (5.8 percentage) considerably and 27 households (31.3 percentage) severely affected with the alcohol over consumption. In the virtuous quadrant 11 households (11.45 percentage) mildly, 9

Table 5 Directions and Turning Points in the Development Trajectory													
Pattern.	Direction	No	Location*	HH Affected with Alcohol	Degree of impact**	HH Affected with distress	Govt	Indebted HH	Intergen. Debt	Fgn. Income	Non-Tradi. Inc	Av. Land by II Gen	Av. Land Present Status
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*
1	I-I	23	A-22	11	M-2	14	4	10	7	3	5	7.9	3.3
			B-1		C-1								
					S-8								
2	III-III	16	A-3	12	M-1	11	3	8	5	0	3	1.6	1.6
			B-13		C-3								
					S-8								
3	I-I-I	9	A -9	2	M-0	0	4	5	2	1	4	7.5	5.3
			B-0		C-2								
					S-0								
4	III-III-III	5	A-4	5	M-1	2	0	4	1	1	3	6.8	3.9
			B-1		C-1								
					S-3								
5	III-I	9	A-8	4	M-0	9		7	5	2	1	1.6	1.2
			B-1		C-0								
					S-4								
6	I-III	17	A-8	7	M-3	8	3	9	7	3	4	3.5	2.9
			B-9		C-1								
					S-3								
7	IV-I	13	A-5	7	M-1	6	3	10	5	0	3	5	3.6
			B-8		C-0								
					S-6								
8	II-III	24	A-13	18	M-3	16	6	14	10	7	6	4.5	3.4
			B-11		C-1								
					S-14								
9	II-I	32	A-17	16	M-5	10	9	19	14	6	7	7.7	2.8
			B-15		C-2								
					S-9								
10	IV-III	34	A-2	21	M-4	17	8	24	14	3	6	2.7	1.7
			B-32		C-4								
					S-13								
Source: Field Survey, * A - Advanced Localities, B-Backward localities, ** M- Mildly, C- Considerably, S- Severely													

households considerably and 41 households (42.7 percentage) severely affected with this biased expenditures and its side effects on he household economy.

Stakeholders pointed out some other anti social/developmental variables, which had direct impact on the HD and household economy. Prominent among them are gambling, debt trap of the previous generation, family problems, imprisonment, crime, sickness and heavy treatment expenses and frequent resettlements[15]. In the first category of households (virtuous), 4.3 percentages have been affected with any one or more of these unproductive occurrences at varying degrees, which proved harmful to the harmonious upward movement. In the second category (vicious), 56 percentages have been affected with any one or more of these variables. Though the instances of crimes, imprisonments and suicides reported are relatively small in number, they had severely crippled the economic progress of the individual families.

A comparison of the two groups in terms of the indebtedness shows not much difference between the groups, 59.3 percentage and 61. 45 percentages of the virtuous and vicious category households are indebted respectively. Similarly there is no remarkable difference with regard to the intergenerational carry over of burden of debt between these two groups.

Land is the major form of asset and the average of the landed property of those in the virtuous zone at the third generation is 3.2 and that of the vicious segment is 2.7. The averages for their respective elder generations were 5.9 and 3.8. Though the differences between the categories came down considerably, still, this form of asset is one important variable explaining the differences in development.

Another factor considered is foreign sources of income. Of the households in the first category 17.4 percentage have children or close relatives employed abroad to provide financial support, while for the households in the vicious category only 11.45 percent have such opportunities. In the virtuous category 27.9 percent of the households

[15] The respondents expressed that; the resettlement form one place to another seriously affected the educational performance of the children due to adjustment problems in the schools, differences in the distances to be traveled in different locations and availability/non availability of educational opportunities. Another possible impact is rooted via the economic and social reasons behind the transfer of settlements. In many instances, the land may be sold out to overcome the debt problem or other financial commitments or to escape from the family/social problems. These situations create environments that are not conducive to the maintenance of the academic interest.

have income sources either from the government or semi government employed members or regular monthly income providing private employment. At the same time, in the vicious quadrant, the percentage having the above financial support is 18.75.

The comparison of other two development patterns, I-I-I (virtuous in three generations – called first category for further discussions) and III-III-III (vicious in three generations - called second category for further discussions) gave the same findings[16]. (See patterns 3 and 4 of table 4 for a summary presentation). All the households in the first category are settled in advanced centers, while 20 percent of the second category in the disadvantaged centers. The impact of alcohol consumption has affected considerably on 22 percent of the households in the first category, while all the households of the second category are affected with it at varying degrees and within that 33.3 percent are severely affected with it. Government or semi government jobs are not yet reachable for the entire households of the second category, while 44 percent of the first category could attain it. Other distressing incidents affected 40 percent of the second category, while these variables have not been reported in the first case. There are no noticeable differences between these groups with regard to the indebtedness, intergenerational carry over of the debt burden and foreign and non-agricultural income sources. With regard to the landed asset, the two categories are at different ladders, with the first category at high average land possession and second category at low average land possession.

Important conclusions emanating from the above discussions are:

(a) Geographical features affect the development attainments of the stakeholders.

(b) Excessive expenditures on alcohol and other non-altruist behaviour within the household have adverse impacts on its circuit of HD-ER, which otherwise must lead towards long run development.

(c) Land under possession is one important variable affecting the development attainments.

(d) Percentage of households with foreign, and/or government/semi-government, or regular private income sources are significantly high among the households in the

[16] This section of the study is handicapped with very limited number of households reported in both categories (9 in the category first and 5 in category second), and one has to bear in mind this limitation while going through the following discussions.

virtuous quadrant. This can be simultaneously the cause as well as the result of the household attainment at the virtuous quadrant.

(e) The instances of distressing incidents like frequent resettlements, unnatural deaths, imprisonment, gambling, family problems, sickness and heavy treatment expenses etc. proved harmful to the harmonious interactions of the two variables under discussion –HD and ERs.

(f) The differences between the two groups are relatively small in terms of the debt burden and intergenerational carry over of the debt burden.

But the extent to which the above conclusions can be generalized is further questioned by two other development patterns observed within the study area[17]. (See patterns 5 and 6 of table 5 for a summary presentation). The two directions of movement compared are vicious to virtuous (III-I) (first category) and virtuous to vicious (I-III) (second category) from second to third generation. The first category of movement is theoretically a difficult track because the second generation is below average in both HD and ERs and their third generation reaching the virtuous segment. There must be some motive force behind the excellent performance of these households. Contrary to it, in the second category, the second generation was above the average both in terms of ERs and HD. But towards the third generation, these households had fallen into the vicious quadrant. There must be some forces, which worked against the smooth reinforcing interactive functioning of the two variables.

In the first category of 9 households 8 are settled in the advanced localities, while in the second category of the 17 households 9 are in the backward localities. In the matters of over consumption of alcohol 4 households in the first category had been severely hit. But in the second category total seven households were affected at varying degrees - 3 mildly, 1 considerably and 3 severely. All the nine households of the first category had gone through the adversities arising from other distress factors. But in the second category only 8 households had gone through such experiences.

[17] This section face the limitation of the small number of households experienced the peculiar development pattern. But the investigation is relevant, because it goes deep in to the breakthrough received by the group of households who were in the vicious quadrant at second generation and reached the virtuous quadrant by the third generation. Though the problem of limited number persists, an enquiry in to the reasons for the falling back of a group of households from virtuous to vicious quadrant while moving from second to third generation is academically important.

Seven out of nine in the first category were indebted, while only nine out of 17 households in the second category are under the debt burden. The burden arising from the carry over of the debt of the previous generation to the younger generation has affected a high proportion of the first category, i.e., five out of nine, while it is 7 out of 17 for the second category. In terms of income from abroad and income from non-traditional sources also, the first category is behind the second. In terms of land, which had been depended on as the primary form of asset also, the first category is lagging behind the second.

A question reasonably be made at this juncture is; what are the other forces which instilled this contradictory pattern of intergenerational movement?

a) The first explanation is that the vicious cycle is not non-breakable. Even from the vicious cycle, direct entry is possible to the virtuous quadrant.
b) Land alone will not assure corresponding economic progress and it is not the sole capital and asset explaining the development potentials of the cultivators.
c) The development attainments of one point of time could not automatically be maintained by following generations, without consistent effort to maintain it.

For desperate poor individuals and households, basic incomes and consumption for survival are the prime pre-occupations. The very poor who are leading a hand-to mouth life cannot consider education as an important item in their consumption basket. The second priority is to overcome vulnerability. It concerns the ability to meet contingencies without further impoverishment, and depends on rights and access to money. Only after ensuring these two requirements that a poor household can think of self-respect, where comes demand for education (Chambers, 1983).

4.6 Relative Development Status of the Female-Headed Households

An examination is conducted to know: how the female-head of the households take the responsibilities of the generally perceived male roles in the absence of the male head or in the presence of irresponsible behaviour of the male head.

There is no empirical evidence from the field to support the hypothesis that the children of such households face social setbacks in HD realm. Since women have full say, the money earned is less likely to be squandered on cigarettes and alcohol. They are specifically directed towards the HD well-being – health and educational aspects. The

food security of the household gets special considerations in the female headships[18]. The present study came across twelve such households, where, the female head has full control over the income and expenditure. The individual household features and implications are further probed below.

There is one case of divorce, in which the female head of household shouldered the entire responsibility of educating the children and empowering them to lead a decent living. Two of the children are employed in the government sector and the third one is managing the family business and farm. The family came out of the debt trap and positioned in the virtuous quadrant. There are two houses where the male head is permanently bed-ridden and cannot assist in the family management. In these cases, the acting head is shouldering the additional responsibility of finding resources for purchase of medicine. Of these two cases, one family is facing severe burden of debt trap, in the other case the female head could lead the household out of debt burden. Absence-in-effect of the active male head is noticed in three households due to overdrinking and anti-social activities, where the female head is compensating his absence and providing higher levels of education to their children including nursing. The absence of male head due to death has created less adverse waves in the household HD-ER functioning compared to other unnatural events. In such cases, the female head specifically attends the HD and empowering aspects of the upcoming generation.

4.7 Complementary Inputs

Though educational expansion was undoubtedly accelerated by economic growth, there are some other complementary factors, which require special mention. The provision for safe drinking water often needs to be combined with increased education to be fully effective. The pattern of widely spread settlement in the farmhouse, helped in preventing the spread of epidemics to an extent. The social capital of the group, i.e., togetherness and unity, gender equality, female participation in social activities, dedicated religious leadership; activities of NGOs, etc are examples for the social capital of the group.

[18] In Cote d'Ivoire it has been calculated that if women had as much control over cash income as men, the share of food in household spending would go up by 9 percent, while that of cigarettes would fall by 55 percent and that of alcohol by 99 percent (UNDP, 1996).

When people have been together for a long time – developing shared norms, values and believes, that enrich the way they live and work – they possess social capital. This complements physical and human capital – enabling them to be used and managed more efficiently. Social capital is crucial to HD. People acting as a strong, cohesive community – whether through community groups or through other NGOs – can achieve more than individuals. And this also tends to offer more space for those who otherwise would be weak and powerless [19].

5. Conclusion

The two way relationship between the economic standard and HD suggests that, as in the case of nations, families may enter either into virtuous cycle of high economic standard and large gains in HD, or a vicious cycle of low economic standards and low rates of HD. In the first case, the level of economic standard and HD are mutually reinforcing each other leading towards an upward spiral of development. In the second case, if persists long, the households may fall into a poverty trap. The existence and persistence of these cycles depend on the strength of the linkages between the two variables. Households may also find themselves into a lopsided state, with relatively good economic potentials in physical terms but poor HD or vice versa. An important issue for policy purpose is how a household moves out form one quadrant to the inclusion in another. What are the other exogenous factors facilitating the movement towards the virtuous segment?

There are noticeable differences in the attainments with respect to HD and ERs across the households. The process through which different variables interacted, the differences in the pace with which households assimilated the development options and common features exhibited by the households attained particular stages of development together can illuminate the development dynamism of the households.

The existence of strong connection between the HD and ERs is further underlined through the generation-by-generation study. The link is not very obvious in the case of first and second generations. This vagueness of the relationship for the two generations is due to the dominance of manual labour in the productive activities and their ER base.

[19] For a more detailed discussion on this topic see UNDP, 1996, box 3.3.

Land was considered as the major capital as well as asset, and the then prevailing technology was not very sensitive towards the human capital content of the labour force. But towards the third generation, the pendulum swung in favour of the educated labour force and the ER base of the household became more responsive to it.

The quadrant-wise examination showed that unbalanced quadrants are inherently inconsistent, and only 11 households remained in the respective unbalanced zones over the generations. Theoretically as well as empirically, it had been observed that those in the vicious cycle have to put more efforts to break the shell. But those in the virtuous quadrant are endowed with resources for upward economic progress. Of the two unbalanced quadrants, the ERs lopsided quadrant is more directed towards the virtuous quadrant. Those in the vicious quadrant face the most difficulties to enter the virtuous cycle.

The enquiry in to the 'boons and curses' in the development history of the households points out that, geographical conditions strongly influence the development attainments. The land under possession is another important variable. The most severe threat to the harmonious blending of the ERs and HD towards the overall development appears to be over consumption of alcohol, treatment expenditures and unproductive other stresses on the family economy. The lack of altruism from the part of the head of the household can have adverse effects on the long run development potentials via both HD and ERs.

There are some complementary inputs, which facilitated the overall development of the migrants; like, dedicated leadership, non-clustered, dispersed settlement pattern, social unity – all of which can be called as the cultural capital. Some other provisions like drinking water, opening up of schools all over the migrant belt etc., influenced the development attainments of the group. But these attainments are not sustainable by themselves. Continuous effort is required to maintain a household in the virtuous quadrant over the generations. The female-headed households are not lagging behind the male-headed in terms of the development attainments. The more severe issue is altruist headship.

During the education of the second generation majority of the households had not been out of the grips of poverty to set apart the time of their children for productive

consumption, even if the facilities for education were available. The subsistence value of the children's time was very high for the household economy. Therefore, the households could not reap the full benefits of the economic value of their future time. But during the education of the third generation, the economic conditions of the households became strong enough to relieve the children from the household activities to productive consumption like education. This shift in the economic conditions resulted in more human capital accumulation and resultant opening towards modern employment opportunities, which, in turn, strengthened the economic resource base. This is an explanation for the persistent poor HD and ER base for some of the households over generations, even if free education is equally available to all.

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