

# Migration and public policy in INDIA: revisiting the HARRIS-TODARO model

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## Abstract

**Objective:** The paper is to draw lessons from theoretical and empirical research and also critically examine the mainstream theoretical model of migration to propose an alternative framework that presents migrants into the city not as nuisance, but as important contributors to productivity and growth for the economy as a whole.

**Methodology:** It is a review article which focuses on the existing literature on migration in classical economics, urban economics, new growth theory and new economic geography.

**Findings:** The paper argues that when migration is associated with positive externalities in cities, a strong case exists for accommodating migrants in urban areas subject to appropriate policies for urban planning and development incentivized by the national government duly involving the city government. The findings state that when positive externalities of cities are considered, the conclusions from the theories of over-urbanization and over-migration as presented by models such as Harris-Todaro model will need to be drastically modified. Thus, there will be a need to have a positive view of migration calling for effort optimize the contribution of migrants to cities by taking measures to provide them affordable housing, workplaces, basic services, security of tenure, etc. This should be possible by harnessing the benefits of agglomeration and knowledge externalities in cities and using them as resource.

**Application:** The paper can open new research avenues on how an increasing number of migrants can be adapted into the cities by bringing the paradigm shifts in the planning process of the urban centers. The paper also provides the in depth analysis of the varying positions of learners and policy maker over the decades about rural urban migration which can help in systematic study of migrants and their conditions in the cities.

**Keywords:** Urbanization, migration, rural and urban development, agglomeration externalities.

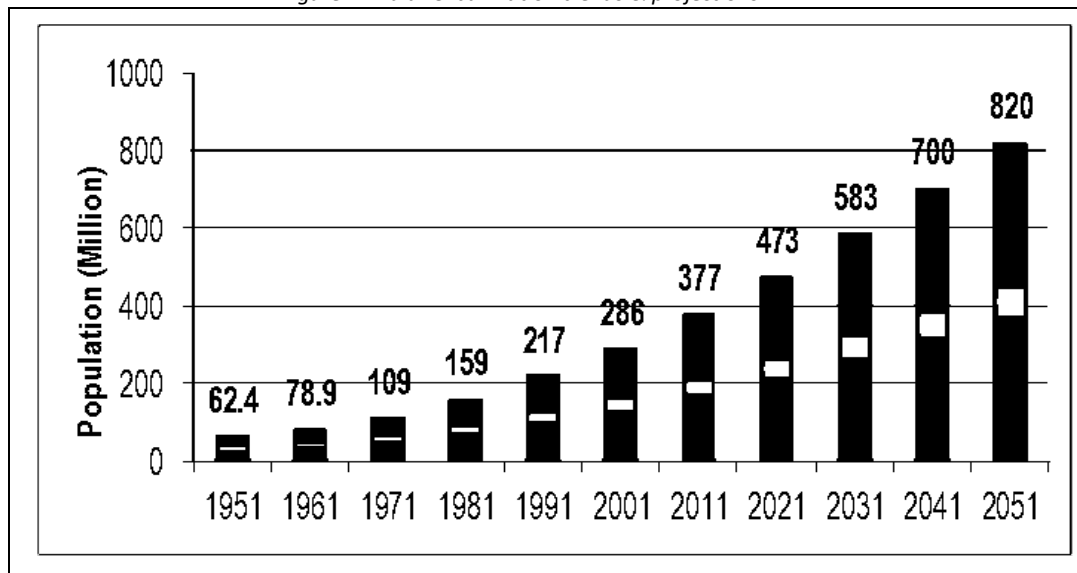
## 1. Introduction

Urbanization is a clear and a direct manifestation of process of economic development especially in developing countries. Historians have proved that whenever some traces of well-established civilizations are found, the common feature in all of them were well developed urban areas which represented the overall development of those civilizations. Whether it is Indus valley or Mesopotamian civilization, well built up market places with all basic facilities were the integral characteristics of all. All this is because urbanization is an inevitable process due to its deep relationship with economic growth. The empirical study done by Henderson in 2001 estimated the correlation coefficient between economic growth and urbanization which tends to be 0.85 [1]. History clearly depicts that economic growth stimulates the agglomeration and as evidence we can realize that most of the developed nations are highly urbanized. Productive and developed centers attract more and more people because there they can easily find out job opportunities, good learning experiences and other facilities. As country gets prosperous and move towards the growth and development, structural transformation also takes place from agriculture to industry and finally to service sector. People and firms try to situate in close areas to take the advantage of agglomeration economies. So along with growth, the country has to make space for increasing urban population.

Earth is urbanizing at velocious rate. In 1950 only 30% of the world population was urban, this increased to 54% in 2014 and projected to be 66% in 2050 [2]. The soaring population rate and rapidly increasing level of urbanization are going to add up 2.5 billion people to the world's urban population and 90% of this increase will be concentrated in Asia which may create huge unbalance in development prospective [2]. Just three countries

of the world- China, India and Nigeria will be contributing 37% of the total increase in the urban population. China is expected to add 292 million people, Nigeria to add 212 million people and for India it will be highest that is 414 million people. India’s urban population has increased from 286 million in 2001 to 377 million in 2011 and the level of urbanization has gone up from 27.8 percent to 31.2 percent [3]. The United Nations has projected that by 2050 half of India’s population will be living in cities. India’s urban population will go up from 410 million in 2014 to 814 million in 2050 [2]. If we compare it historically then whatever increase in urban population India has known up till nowadays, the same number will be added in the coming four decades. Figure 1 shows the soaring levels of urban population in India which will increase by 443 million up to 2051. The urban population of the country is increasing at increasing rates over the years.

Figure 1. India: Urbanization trends & projections



Source: UN: World urbanization prospects 2014 revision

This growth in urban population will come from natural increase, migration and reclassification of villages to the towns or annexation of rural areas to city boundaries. Though the growth is the result of the combined effect of all the three factors, but mainly migration is blamed for the growing urban population. In past migration had contributed only 21% but there is every reason to believe that this percentage is going to increase. Out of these four factors- migration and annexation of rural areas are really going to be responsible for at least half of the increase of urban population. In context of Indian cities, they have to be preparing for 200 million people from outside of the cities by 2050. This proposition can be explained by the help of the Table 1.

Table 1. Disaggregation of total growth in urban population into components

Share of the component %	1961-71	71-81	81-91	91-01
Natural increase on base year population	64.6	51.3	61.3	59.4
Population of new towns less declassified towns	13.8	14.8	9.4	6.2
Net rural-urban migration	18.7	19.6	21.7	21
Increase due to Annexation of rural areas	2.9	14.2	7.6	13

Source- (Mahanty, 2014)

Natural increase in the population of Indian cities is just 60%, rest of the increase in population had came from outside the cities, although it is true that in this increase the highest percentage is of migration. As urbanization proceeds in India, migration will get an impetus due to three primary factors. Firstly, with rural areas containing 70 percent of India’s population but contributing to about 15 percent of GDP at present, there will emerge a push factor due to limited holding capacity in agriculture. This is corroborated by the urbanization experiences of developed countries. Secondly, as India embarks on a double digit growth path, productivity and growth will primarily emanate from manufacturing and service sectors. As high-tech and precision manufacturing develops with rise of the knowledge economy and tertiarisation of the economy occurs, cities will be the places to create jobs and attract migrants to both formal and informal sectors. Thus, there will be a

prosperity-pull migration. Thirdly, as rural areas develop there will be migration of people from rural areas in search of better schooling, higher quality employment and recreation and social opportunities in cities and this arises the property-push migration. Indian cities are the creator of wealth and initiator of growth but somehow they are not able to produce adequate jobs, this creates the pessimistic views towards migrants because they are held responsible for this due to some theories like Harris- Todaro migration theory.

The celebrated Harris-Todaro model in development economics presents a picture of “Excessive” migration to cities over and above what is warranted under free market conditions. The model assumes that rural-urban migrants migrate in search of jobs to cities based on differential between expected urban wage and rural wage and “Queue” in cities even in the presence of sticky legally and socially determined higher wages in the urban formal sector. Thus, they over-crowd slums and informal settlements. The model hints at two impractical policy suggestions: (i) wage subsidy to the urban sector and (ii) migration restriction on the country-side population.

Many developing countries tend to take a negative view of migration, urbanization and population distribution, influenced by Harris-Todaro-type theories. They often embark upon anti-urbanization and anti-migration policies. They treat rural and urban development as competitive and not complementary. This is revealed by periodic surveys conducted by the United Nations. In 2009 83% of the states found their population spatial distribution not complying with their thinking of being acceptable. Among developing countries, 58% of countries show their dissatisfaction towards their population structure in the cities. In 1974 44% of the developing countries had implemented the anti- migration policies which increased drastically to 78% in 2009 [1]. The main point to notice over here is that such kind of policy options are not tried anywhere in the world but still the anti-migration and anti-slum drive keep on linger on the minds of government of developing countries. It is very necessary to question the Harris- Todaro model as it has given some very unrealistic results which cannot be applied in any economy. It has totally ignored the state of rural sector, took the urban wages fixed artificially and most importantly does not have any proper empirical evidence in their support.

This paper re-examines the Harris Todaro thesis in the light of research in urban economics, new growth theory and new economic geography and presents a case for public policy to encourage rural-urban migration through urban policy and effective urban management programs to deal with the negative consequences of migration and urbanization. In the above context, the main purpose of this paper will be to draw lessons from theoretical and empirical research and also critically examine the mainstream theoretical model of migration to propose an alternative framework of adjustments that present migrants into the city not as nuisance, but as important contributors to productivity and growth for the economy as a whole. Here this paper questions the assumptions, theoretical aspects and policy implication of the HT model this paper tries to explore and synthesize the existing research on the aspects of migration on the countries and draws some conclusions which can help to construct new policies by the governments of developing countries like India.

The article comprises of five sections. Section 2, tries to deal with the entire Harris-Todaro model- its assumptions, equations, policy implications and also the weakness of the model. Section 3, focuses on the literature review which tries to gather the thoughts of various scholars on migration and covers those factors which were ignored by the HT model. Fourth section comprises the analysis of policy implications given by HT model in the context of developing countries and tries to put forward some alternative adjustments. The final and fifth section tries to put forward some of the policy options for the decision makers in developing countries so that to induce a holistic approach towards migration.

## 2. The basic Harris-Todaro model

Todaro in 1969 proposed a model for the determination of equilibrium in the simple economy constituting two sectors- urban and rural sector. According to the model, there will be continuous migration of labour from rural economy to urban economy based on the evaluation of difference between the discounted expected income flows in rural and urban sectors. The increase in labour demand in urban sector is exogenously determined variable whereas increase in labour supply through migration which is function of difference in expected income flows from urban and rural sector is an endogenously determined variable. In steady state, migration into the cities ensure that urban labour supply should increase at the same rate as the urban labour demand so that constant equilibrium level city unemployment rate could be determined. But in certain condition, this link between migration and urban unemployment gives rise to Todaro paradox that is the

increase in job opportunities in urban sector can further fuel the urban unemployment through induced migration [4]. Harris-Todaro model used this preposition in their model and gave the more detailed interaction between rural and urban sector. The key assumptions taken by the model are [1]:

1. Rural and urban marginal products of labour both are decreasing functions of the respective employment levels. The rural production function includes fixed land and capital, and the urban production function includes fixed capital, leading to diminishing marginal returns to labour.
2. Producers in both the rural and urban sectors act in a competitive manner, equating marginal product and real wage in equilibrium. However, the nominal urban wage is constrained to be greater than or equal to an institutionally fixed minimum wage.
3. Rural-urban migration continues as long as the expected urban real wage exceeds the rural real wage at the margin.
4. Rural migrants gamble or 'Queue' for formal urban jobs, accepting unemployment or under employment in the informal sector in the hope of being absorbed in the formal sector.
5. Harris-Todaro model can be presented through equations [5],[6]. Let  $W_r$  and  $W_u$  represent the nominal wages of agriculture and urban sector.  $E_u$  is the number of urban jobs and  $L_u$  the urban labour force including migrants.  $X_A$  and  $X_M$  are the products of agriculture and manufacturing sector.

$$X_A = f_A(L_A, N, K_A), f_A' > 0, f_A'' < 0$$

$$X_M = f_M(L_u, K_M), f_M' > 0, f_M'' < 0$$

These two equations shows the rural and urban production functions where  $L_A$  shows labour in agriculture or rural sector,  $N$  and  $K_A$  or  $M$  shows land in rural and capital in agriculture and manufacturing sector. In agriculture sector wages are equal to marginal product of labour but this is not true for urban manufacturing sector.

$$W_r = f_A'$$

But

$$W_u > \text{or} = f_M'$$

This gives rise to the income differentials in rural and urban income due to which labour migrate. They calculate the expected urban income which is written as-

$$E(W_u) = W_u \cdot E_u / L_u$$

The amount of rural urban migration  $M$  is the function of urban-rural expected wage differential.

$$M = f(E(W_u) - E(W_r))$$

The rural urban equilibrium expected wage condition is-

$$E(W_u) = E(W_r),$$

Which turns into?

$$W_u \cdot E_u / L_u = W_r$$

So it ultimately results in the equation where it shows that there is an inverse relationship between equilibrium unemployment rates and urban- rural expected wage differentials.

$$1 - E_u / L_u = 1 - W_r / W_u$$

If there is no unemployment in urban manufacturing sector then

$$W_u = W_r$$

As the overall summary of the model we would like to put forward some points:

1. Migration is initiated by some rational expectations after calculating economic benefits and costs, psychological factors also play some role.
2. Migration decision depends on expected gains rather than actual gains.
3. The probability of getting an urban job is inversely related to urban unemployment rate.
4. Migration rates in excess of urban job growth rate are not only possible but also a rational situation due to the huge wage differentials between the two sectors. Hence the high rates of urban unemployment are the result of imbalances in opportunities between urban and rural sector.

### 3. Policy implication of Harris-Todaro model

From the overall structure of the model, we got the prediction that the problem of high rates of urban unemployment can only be solved by strict physical restrictions on migration. The simple philosophy behind it was that if there will be restriction on rural-urban migration, then it will increase the total output of the agricultural sector without decreasing the output of the manufacturing sector and hence the total welfare will be optimized. The second policy suggested by the model was to give wage subsidies to urban manufacturing sector through which more job opportunities can be created in urban sector. This model of migration by Harris and Todaro is based on some very unrealistic assumptions and put forward some very unrealistic prepositions. Firstly it has taken urban wages as fixed at the point higher than marginal productivity of labour in manufacturing sector but there is no reason to believe this that in today's world of competition any firm will go for this kind of policy. The urban wages in this model are artificially fixed high. Secondly it took no externalities whereas urban manufacturing sector is full of externalities whether agglomeration, scale or knowledge externalities which can influence the production in this sector. Thirdly, it completely ignores the transportation cost and psychological costs involved in the process of migration which makes migration costless. Fourthly, it took the assumption of closed economy which is quite unrealistic in present scenario. International trade plays a very important role in search of new markets for the product and also the technology for the better production [6]. Fifthly this model in general talks about partial equilibrium only in urban sector. It is really not concerned about what is happening in rural sector [4]. Sixthly, while framing the whole model, no government interference was considered in the market but instantly while forming the policy options government appears in the scene with responsibility to provide wage subsidies to manufacturing sector. This kind of partial role of government in the whole process cannot give the desired results. Government should fully participate in the whole process and should become one of the stakeholders in it. Lastly, it ignored many other factors and possibilities like return migration, heterogeneity in migrated labour, better job prospective in informal economy, possibilities of job search in urban areas while living in rural areas etc. In the next section of literature review we are going to discuss the flaws in HT Model with help of available researches which represents the evidence against HT Model in real world.

### 4. Literature survey

Here literature review is divided in the sub-headings of four types. All these four points cover the existing literature in field of migration, which evidently proved that how HT model has ignored some of the important aspects about migration. In this section, with the help of the existing literature, paper tries to criticize the HT model on its theoretical and empirical basis.

#### 4.1. Rural economy

As already stated that Harris-Todaro model completely ignores the rural sector in their theory of migration. It is completely silent about what is happening in rural areas. Whereas the work of scholars like Lewis (1954) and Fei-Ranis (1961) regarded migration as the one of the major factor which works for the rural development. They emphasized on the beneficial role of migration in the development of dual economy. On the assumption that marginal productivity of disguised labour in agriculture sector is zero, these models asserted that traditional sector can supply a perfectly elastic labour force to urban industrial sector which get developed by accumulating more capital. Also this sector pays wages equal to mean product in agriculture sector. Ranis and Fei also introduced the possibility of technical progress in agriculture sector by absorption of capital investment in that sector which as an indirect effect increases the production in agriculture sector [4]. The removal of surplus labour from the agriculture sector again increases the overall productivity and wages of agriculture labourers due to removal of excessive pressure on the fixed factor and competition respectively [7].

Migration through remittances and networking tends to decline the inequality and poverty in the rural sector. Remittances sent by migrants back to their family are the most important and least controversial link between migration and development. Remittances have many direct and indirect effects on the welfare of people in origin place. These remittances can help through inducing the increase in consumption and investment. Multiplier effect of increased consumption can indirectly help in stimulating development in rural

sector. Migration is defined as the process which equalizes the wage levels at origin and destination points [8]. The remittances sent by the migrants have the strong developmental linkages and also the migrant workers were represented as the hope for the industrial development of their native land [9]. Remittances send back by migrants help to generate the capability in the rural poor residents so that they can help themselves out of the vicious circle of poverty. Empirical evidences given by Adams during the study in Ghana suggest that remittances can reduce the depth and severity of poverty [10]. Migrants already settled in destination point of migration create a network for all the aspiring migrants. These networking externalities increase the expected benefits and reduce the cost of migration which in turn helps the lower income group to migrate. This again helps to reduce inequalities and poverty back in rural areas. The empirical study done in Mexico has established an inverted U-shaped or Kuznets's relationship between out-migration and inequality in origin points of migration [11].

Studies also suggested the positive effect of migration on human capital development through knowledge transfers and increased expenditure in human capital development. There are growing number of evidences which suggest that the large proportion of income acquired through remittances is spend on educational and health improving activities rather than consumption activities [10]. Once in school, then the children of migrants are keener to finish their education than the other children because they are well aware of better prospects of migration gains. Along with the direct impact of wealth, the increased knowledge of health issues and health improving practices, gained by migrants led to fall in infant mortality rates and encourages good practices like better sanitation and pure drinking water [12]. Some set of researches has put forward the critical question of brain drain which can harm the human capital base of origin point but in empirical study done by World Bank in Nepal in 2006, it is found that possibility of getting hired in urban jobs create a stimulating environment for higher studies which strengthen the base of human capital in rural areas. Moreover the benefits from return migration overall offsets the negative implications of brain drain. All the above points explain the different situations created in rural areas due to rural-urban migration which were totally ignored by the HT model of migration. So the migration which can be the key for rural developed in modern world was labeled as nuisance by these kinds of theories.

#### **4.2. Urban economy**

HT model presented the simple preposition that due high rural-urban migration in the prospects of expected gains results in the open unemployment in the urban sector. Under the impression of these kinds of theories, it is always argued that rural-urban migration negatively impacts the urban job sector. They create the competition for the urban residents in the job market which results in huge open unemployment in urban areas. Harris and Todaro in their model get some very fantastic results against migration, but they completely ignored the prevalence of agglomeration economies which make space for these migrants in the urban centers [1]. As migrants come to the cities, they employ the resources of cities more intensely and more profitably. Most of the anti- migration theories had made industrialization as their basis but they totally ignored the strong emergence of service sector in cities which is now main source of employment to the migrants. They also ignore the functions which these migrants perform in the cities. According to Williamson migrants have very important role to play in economy of city. Most of the classes in cities are benefitted through these migrants. Their positive effects are not only confined to cities.

Anti- migration or anti-urbanization theories often assert that that migration into the cities put an extra pressure on the public services and infrastructural services provided to urban people. This results in congestion and lower standard of living in the cities. The fiscal impact of migration depends on the cost and contribution of migrants to the system of cities. The rural migrants affect the urban resident's access to services in two ways- they can compete with the urban residents for the social services provided to them by the government and on the other hand through their tax contribution they can provide financial resources to the local government to invest in the provision of social services. So it totally depends on the investment preferences of the government that whether the migration into the cities will reduce or increase the access of services to the urban residents. Empirical studies done in U.S and China gave some vibrant results. In case of urban social services, these studies found that rural migrant inflow into the cities has no adverse effect on education and health services. Either they offset the extra pressure created, by compensating in the form of taxes or many times they cannot use these services either due to their ineligibility or high cost. Urban crime rate is also not found to be correlated to the rural migration but some negative impact is found on the public transportation due to over- crowding [13].

After 1990, some alternative models of development were produced which considered the problem of migration from other perspectives. Even some do not consider it as the problem. It is very unfortunate that Harris-Todaro model does not consider the escalating cost of living in urban areas due to migration into the cities. Recent researches have added a very important element to HT framework by including the urban land market argued that rural-urban migration induce the rise in prices of urban land in forms of rent which in turn escalates the urban cost of living. This phenomenon limits the rural-urban migration by decreasing the expected gains of labour from the cities [14]. All the above points produced by the literature and researches about migration prove that HT Model has taken rural-urban migration in very narrow and artificial way. By hook or crook, it wanted to prove the migration as undesirable phenomenon and in this order it overlooked some important processes going on in the urban sector.

### **4.3. Migrant's behavior**

HT model took no notice of the behavior of migrant and the different motives behind migration. It treats migrants as the risk-neutral individuals which migrate only in the anticipation of expected gains where as in reality risk aversion can be of the important factor while taking the decision of migration. People may want to migrate because they want to diversify their means of income and secure a potentially high livelihood [15] or they want to overcome the developmental constraints like credit and insurance constraints [4]. Harris-Todaro model was based on the individualistic approach towards migration. Migrant used to be a rational person who used to take decision about migration to maximize his own utility. But eventually a new branch came out known as new economics of labour migration which asserted that decision about migration is a family or household oriented decision rather than the individual decision [16]. Through migration the rural households tries to avoid any kind of uncertainty by diversifying their source of income.

### **4.4. Policy implications**

The two policy options given by Harris-Todaro model were quite unrealistic and unwarranted. They are result of just a technical construct and can have very detrimental effects on the developing countries like India. In Harris-Todaro model and its extensions given, wage subsidy played a very important role to solve the problem of urban unemployment rising through huge rural-urban migration. According to Harris-Todaro model wage subsidy should be given to urban manufacturing sector so that more urban jobs can be created. Combining this policy with the physical restriction over the migration can move the economy towards the welfare maximization by increasing urban output on one hand and solving the problem of unemployment due to migration on other hand. In produced a positive critique of Harris-Todaro model. They argued that a uniform subsidy, regardless of the sector of employment, will yield the optimal solution. It means that a wage subsidy should be given to manufacturing sector and a production subsidy should be given to agriculture sector to make ensure that both the sectors are developed on the equal terms.

This implies that there will be no need of physical restrictions on the migration to arrive at the equilibrium [17]. Another extension to the model was given by Basu in 1980. He completed the work of solving the problem of informational gap about the amount of subsidy by arguing that any subsidy above the optimal uniform wage subsidy will also yield the same socio-optimal results [18]. In another piece of research done [19], they argued that agriculture sector should be subsidized heavily and this subsidy should be financed by manufacturing tax. This will lead economy to full employment level. But the biggest critique against all these kinds of theories is that these theories don't have any empirical evidence in support of themselves. Up till now in history these policies are not used anywhere so the rate of their success or failure is still unknown. But on theoretical basis these policy options can be heavily criticized and this is done in the next section of the paper.

## **5. Alternative adjustments**

This section tries to suggest some of the alternative adjustments which can help to achieve the motive of simultaneous development in both rural and urban sector.

### 5.1. Agglomeration economies

The adjustment process advised by Harris- Todaro model through two of its policy implications is not at all comforting and feasible for the developing countries like India. They suggested wage subsidy for the urban areas but this proposition given by these scholars are not capable to give answers about some basic situations which are set up in developing states. The first question raised is that why the government should subsidize the urban producer instead of rural farmers who suffer the wrath of development the most? In country like India where every two out of three people living in rural area are considered as deprived this kind of policy option cannot work. In recently done socio-economic census (2011) we found out some very shocking truth about rural India. According to census there are total 24.39 crore households in India, of which 17.91 live in villages. Of these, 10.69 crore households are considered as deprived in one or other way. 30% of the total households are landless and 13.25% are living in house of one room with kaccha walls and roof [3]. In these kinds of situation subsidizing only urban producer will further intensify the problem of unbalance in rural and urban sector, which in turn instead of decreasing the migration will boost it up.

Tried to solve the paradox by suggesting uniform subsidy above urban wage level but they also failed on financing ground. Here in both the versions, the administrative costs and feasibility of these policies should be considered. In the resource deficit countries like India, it is impossible for the government to support both the sectors simultaneously much resources. So only urban sector has to bear the whole burden of financing the development and this cannot be possible without the presence of vibrant agglomeration economies in cities. In this context, an appropriate adjustment in urban equilibrium can be offered by agglomeration economies in the urban sector which are produced due to dense population and efficient provision of public goods. Poor are needed to be skilled so that migration instead of creating havoc in their life can complement their skill. Skill development and proper provision of public goods like transportation, infrastructure and basic amenities can shift the urban production function upward so that more employment can be generated and induced migration due to it can also be adjusted in the cities.

### 5.2. Migration guidance

The second policy option that is restricting the migration is also quite unrealistic. In most of the countries this policy has failed badly. Any exercise done by the free will is Pareto optimal and restriction over it will definitely decrease the overall welfare of the individuals. Any restriction on migration creates limitations in labour market which may prevent governments to launch labor-intensive industries which are necessary for poverty alleviation [4]. The income differential between rural and industrialized urban areas can increase due to restriction over migration of labour to industrialized areas. The positive impacts of migration can outweigh the negative consequences because of contribution of rural migrants in urban production.

The policy of migration restriction has different names in different countries. Population movement in pre-reform China was controlled by the state through employment and residential controls, chief among which was the Hukou system. Introduced in 1951 but it became more severe in 1960's. This system severely hindered the migration process and also the urbanization process in China. Most of the Chinese cities were undersized and due to it China had to face huge GDP and productivity losses. The low agglomeration resulted in inefficient economic activities in both rural and urban sectors [20]. Same kind of conditions was found in Vietnam, who has recently shifted to open door policies to kick off its development. Blockages to migration exist throughout Africa in the form of discouraging permits, fees, fines, roadblocks, harassment. The most outright policy to prohibit durable internal migration was pursued by Apartheid South Africa (with its notorious "Pass laws"). This policy was ended in the late 1980s. Internal migration – by both sexes – has increased since and also the development opportunities of the countries [21]. Employment exchanges can be established in rural areas so that rural labour can search jobs in urban sector without even migrating to urban areas. It is better to guide migration into a proper direction than to restrict it because demand of labour is increasing in urban areas. This can prove a better adjustment than the one suggested by Harris-Todaro model.

### 5.3. Informal sector

Another adjustment can come from informal sector. Harris-Todaro model has totally ignored the informal sector which absorbs more than 80% labour in the developing countries. The informal economy is the turning as the dark horse in the urban development. HT Model just ignores the holding power of informal economy which



is the largest employer of the country. HT model treated it as an invisible or black economy in which a labor can only be underemployed. Informal sector has emerged as the biggest employer in the country. Table 2 shows the importance of informal sector in the economy.

Table 2. Effects of migration on various classes

Classes	Effects
Rural class	Unskilled labours who stayed back will gain through the increase in wages; rent on agriculture land will fall due to decrease in competition for land, remittances to rural kith and kin.
New immigrants to city	Gain as they move to higher jobs and good salary in comparison to rural areas.
Capitalists	Gain as they get number of unskilled labours at very cheap prices, bigger market to serve.
Urban skilled labours	Gain as the increased output of cities due more unskilled labours create market for their skills, on consumption side, increased consumption will create bigger market means more need of skilled workers.
Middle class	Gain as they get cheaper personnel services like drivers, maids, gardeners etc.
Old immigrants and urban unskilled labours	Loses their labour market share to new immigrants, competition worse of their situation.

Source- (Williamson 1990)

The non-agriculture sector primarily located in urban sector so through the Table 3 we can see that how necessary is the informal economy for the urban sector but unfortunately this source of finance and employment is ignored very heavily by our urban planners. The proper and effective harnessing of this opportunity can give magical results especially in employment sector. Activities under informal sector are mainly labour intensive and hence great potentially to absorb the labour of the cities. Also needs of this sector vary from highly skilled to unskilled labour so the heterogeneity of migrant labour poses no serious danger for the city. It is a kind of first step for the rural migrants towards formal sector. First they grab a foothold by getting employed in informal sector and then gradually with the gain of experience and skills shift to higher hierarchy. But to efficiently use this sector, the urban planners has to induce some reforms in their planning framework .They have to give place for informal activities in the master plan of the cities and also ensure the provision of adequate amount of public good to this sector so that it can experience the unhindered growth. The spatial inclusion of urban poor is also the most needed reform in urban planning because it is urban poor which is associated to informal sector most.

Table 3. Employment by unorganized and organizes sector in India (in %)

Sector	1999-00 NSS55 <sup>th</sup> round		2004-5 NSS 61 <sup>st</sup> round		2009-10 NSS 66 <sup>th</sup> round	
	Unorganized	Organized	Unorganized	Organized	Unorganized	Organized
Agriculture	97.7	2.30	97.65	2.35	98.88	1.12
Manufacturing	70.20	29.81	71.20	28.80	68.41	31.59
Non- manufacturing	66.65	33.35	68.89	31.11	62.92	37.08
Service	69.67	30.33	72.44	27.56	68.91	31.09
Total	86.36	13.64	86.32	13.68	84.17	15.83

Source- (Mohanty, 2014)

#### 5.4. Cost of living

HT model asserted that rural migrants saw huge expected gains in the form of high income differentials between rural and urban sector and hence they migrate to the cities. But this very act can make cities unattractive for them in long run. Brueckner and Zenou in 1999 gave an alternative adjustment strategy for urban areas. The entry of rural migrants in the urban land market will increase the demand for land and housing in urban sector. This will give to the high rents which in turn increases the cost of living in the cities. Moreover it is asserted that the normal standard of living and the prices of basic commodities in urban sector are much higher than that of rural sector. This can easily curb the expected gains anticipated by rural migrants in the cities and hence make the migration unattractive.

### 5.5. Bunch of policies

When we sort for the general equilibrium then we have to consider the multiple forces and find out the adjustments through multiple ways. In the same way rural-urban equilibrium needs to focus on multiple factor frameworks. There should be a bunch of policies which should work in the same direction. Rural development by giving production subsidy and at the same time urban development by realizing the agglomeration economies with the help of public goods can be part of this bunch. Remittances should be given equal treatment because they also play very important role in rural development. Importance of remittances is depicted Table 4 which shows that internal migration within India results in inflow of remittances equal to nearly 32000 crore. The total volume of remittances in rural sector is nearly 3.5 times more than that of urban areas [22]. So to initiate development in rural sector remittances can be very important source. Government along with the international remittances should focus on internal remittances also and should create an atmosphere of investment for these remittances in rural sector so that rural families don't have to depend on migration to diversify their sources of income. Development of sound financial base in both urban and rural sectors can help to solve the problems related to migration. All these forces in together can create a new type of adjustment for rural migrants in urban sector.

Table 4. All India annual household remittances flow 2007-08

	Rural	Urban	Total
Total No. of HH in India (cr.)	15.9	6.3	22.2
Proportion of HH receiving remittances (%)	10	4	8
Average annual amount of remittances received per receiving HH (Rs.)	16000	31000	18000
Volume of HH Remittance Inflows (Rs. Cr.)	25400	7000	32000

Source- (Tumbe, 2011)

## 6. Lessons for public policy in India

The theories on over-urbanization and urban-bias had long lasting effects on the mind of Indian officials. They treated rural and urban sectors as the competitors rather than the buddies in the overall development process of the country. The sustainable development in rural areas and congestion mitigating policies in urban sphere are the two most important policy options which our government has to follow. In recent times, prosperity pull migration has been the main concern of the government. People migrate to the cities because there they find job opportunities with better infrastructural services. There they can easily find access to basic services which include education, health, markets and banks. In this context rural development will be the most appropriate policy option with the government. Rural areas in their own right deserve the full participation in a welfare state. From the policy perspectives, all the findings indicate that providing access to basic services can help to reduce the rural urban migration in developing countries like India [23][24]. Government can initiate more and more programs like NREGA which will increase the job opportunities for rural residents but it cannot solve the overall problem of rural areas. Today because of NREGA people are staying in rural area but they are just postponing their migration for some time, ultimately they will migrate to cities in search of better life. So the skill development among the rural youth will be one of the most appropriate measures required for the rural development, so that these labours can be prepared for the competitive environment of the cities. The other measures can be enhancing rural connectivity, encouraging agro-based industries and other kinds of job in rural sector. But there cannot be an escape from the idea of developing vibrant cities which can provide finance not only for its own development but also for the rural development. As rural areas cannot generate the finances needed to address their problems, it is the urban areas that have to mobilize resources for both urban and rural development.

Urban development through development of infrastructure can be key solution to the problem of congestion due to migration. The structural characteristics of cities make infrastructural development as the cost effective tool to mitigate the congestion problems [1]. The densely agglomerated cities results in the provision of cost effective and low priced services to the urban residents including migrants. Development of public transportation can also help to increase the connectivity of nearby rural areas to urban areas and thus decreasing the need of migration. Transit oriented development with mix land use can enhance the economic efficiencies of the urban residents. Tools like Inclusionary Zoning, vacant land tax and value capturing should be

used in order to plan and finance the urban development. Cities are the reservoirs of finance and we can only harness it through proper urban management. The skill development and education facilities can complement the public goods and services to create effective agglomeration forces by shifting the urban production function, in order to adjust increased migrants in the city.

Cities in India offer 70% of the total jobs and produce 80% of the total finance but still the main maintenance authorities of the cities don't have the powers which they require in order to solve the problems related to urban management. Agglomeration externalities are generated at local level and they should be harnessed at local level to produce the optimal results. In this context it is very important that the local authorities of the cities should be powerful enough to find their way out. Local bodies like the municipalities, district planning committees and metropolitan planning committees must be strengthened to act as catalysts of local and regional economic development. A major challenge of urbanization is the positioning of these and other key institutions to deliver good urban governance. Good governance cuts across all strategies to address urban issues like resource generation, regional planning etc. Decentralization, reforms at municipal levels, coordination between local, state and national governments and partnership between private and public sector can act as key tools in inclusive development of the cities.

Urban poor are very important part of urban economy. It is most oppressed section of the urban economy. The general consensus is that migration results in higher incidence of urban poverty but the studies have denied it. Neither all migrants are always poor nor is the urban poverty just the spillover of rural poverty. It is a quite different phenomenon and it should be tackled in different manner. A renewed force is needed to initiate changes related to land tenure, skill development; provision of basic amenities and affordable housing for marginalized section. Programs like National Skill Development Program can be very useful for this purpose. These changes are very necessary to generate capacity in the urban poor so that they can help themselves out of poverty trap. If this section is empowered through skill development then it will rejuvenate the agglomeration forces in the cities and this will help to accommodate more and more migrants from rural sector.

As we have already discussed the importance of informal economy in urban development, policy options should be formed to unite this form of economy with formal economy. Both the economies have heavy linkages and both are interdependent on each other so government, especially local governments of the cities should recognize the need to include informal economy in proper policy framework. It should be given place in master plans of the cities and should we include in every kind of planning for the cities. While planning the infrastructure the cities especial focus should be lead on the people worked in the informal economy. If we are able to create a proper base for the informal economy in the cities then in long turn it will help us to create a vibrant city by absorbing the migrant manpower from rural areas.

## 7. Conclusion

When HT model was introduced in development economics, it vibrated many strings. It was new celebrated model and many countries thought that they finally got a development model which can guarantee the success. But as time goes off, the new researches surfaced which proved that the direction provided by HT model is not the realistic one. It is just a technical construction which overlooked many other factors which can affect the equilibrium. It ignored some basic concepts like agglomeration externalities, urban land market, rural urban linkages etc, which can change the direction of whole policy framework. New developments came with new arguments in favor of migration. Migration not only helps in development of urban sector but also initiate development in rural sector. Indirectly in generates capability in the poor left behind which in turn help them to overcome the developmental constraints.

Agglomeration initiating policies can further augment the capacity of the cities to absorb the migrants but for it, it is necessary to create and plan the cities of 21<sup>st</sup> century which are hubs of creativity, skill, highly productive human capital and sophisticated knowledge transfers. These cities should be able to absorb future migration, create employment and agglomeration externalities and act as the source of finance for both rural and urban sector. This paper doesn't advocate the preposition of providing the subsidies to urban areas but it supports the idea of strengthening the cities through agglomeration economies which in turn create the high agglomeration rents. These rents and other resources from the cities finance nearly 80% of the total country's expenditure. So it is very important to focus on this part. So the main preposition forwarded here is to develop

and subsidize the rural areas by generating finance from the urban areas. We can summarize the policy options provided by paper in following points:

1. Pro-migration policies which can strengthen the agglomeration forces and provide for proper infrastructure should be supported.
2. Rural areas should be developed with the help of urban finances but cities should be ready for migration from cities.
3. Municipal financing should be strengthening.
4. Informal sector should be treated as the part of urban sectors not the competitor or the economy for the deprived ones.

But even after this we should consider that the migration is only the micro-economic phenomenon which cannot be generalized so easily for the macro framework. General development is very complex phenomenon and need the coordination of forces like economic, social, political and institutional. This coordination cannot be achieved by individual migrant or institution, it need the support of government. If state failed to provide such support then even the positive effects of migration cannot stabilize the economy. Therefore, migrants should neither be blamed for the lack of development nor be treated as the magical pill for the success.

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