

Construction of Niche Structure for  
Employment Creation:  
Debating Structural Transformation

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# Construction of Niche structure for Employment Creation: Debating structural transformation

Sunil Ray<sup>1</sup>

## Abstract

In a predominantly 'need-based economy' structural transformation at the behest of global capitalism can create decent employment for a few only. It leads to aggravate inequality further. The unspeakable employment scenario, as it exists now in India, the paper argues, will continue until the development paradigm gets rid of the flawed theoretical perspective on structural dualism. The paper shows how niche economic structure can be constructed based on the laws of evolutionary biology in an alternative theoretical perspective of dualism. The construction of the niche economic structure, the paper argues, is conceived within the framework of 'comprehensive co-operation' in which capital is never assigned the central role. It promotes self-organization in that ownership is collective and labor is valorized. Capital and labor may not oppose each other.

## I

### Introduction

".....the idea of development stands today like a ruin in the intellectual landscape, its shadow obscuring our vision. (its) structure is falling apart and in danger of total collapse. But its ruins still linger over everything and block the way out. The task, then, is to push the rubble aside to open up new ground." ("The Archaeology of the Development Idea, (Sache, 1989).

Development in a private enterprising system is set in motion primarily through employment generation with trickledown effect (as derivative of economic growth) of the market operations. Let us not talk about employment creation of Keynesian variety that refuses to be a long run phenomenon in any case. Besides, one has no reason to dismiss its objective, which is but to rescue market from its failings. Be that as it may. The trickle down effect on creation of decent employment was shown to be so magical by the protagonist of market liberalization in the early days of liberalization that nobody could believe it to be a market hallucination. The mainstream economists, to prove their incontestable commitment to the latter, went on producing mystical logic of development since the days of Adam Smith.

We do it only to repose 'faith' in the growth of private enterprising system with its all-pervading solution of trickle down effect under capitalism. The potency, magnitude and direction of the latter are necessarily assumed to have homogeneous implication for employment for a highly inhomogeneous society and economy like ours. Our intellectual efficacy is sought to be fashioned by this false understanding of the functioning of the economy and impels us to constantly search for mystical equilibrium of the economy at higher growth. While the culture

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of drawing malicious pleasure by comparing our GDP growth rate with that of China and China only, attention is deliberately taken off from the fact that we, Indians, are much behind Bangladeshis in terms of human development index, not to talk about malnutrition that India has the distinction of having more than one-third of world's malnourished children! (Dreze and Sen, 2012, 2013)

I choose to briefly quote two studies that confirm why proclamation of the protagonists of market liberalization was no less than hallucination. This is about astoundingly dreadful employment scenario that has emerged in the country after almost three decades of liberalization and that the government in power at the center has vouched to reverse it. First, the study conducted by the Institute for Human Development that reveals (1) Regular wage employment constitute only 18 per cent of the total employment and of this, 60 per cent are informal workers with no social security. In other words, 6.8 per cent of the total workers have regular jobs which can be categorized as good and decent job. (2) Of the total workers, about 84 per cent are in the unorganized sector and the rest, 16 per cent in the organized sector. (3) Economic growth led to increase (a) wage employment mostly in the informal sector with very little increase in regular formal wage employment. To be specific, large majority of the workers are casual and irregular workers or petty self-employed producers and own account workers. Besides, the incidence of 'working poor' has turned out to be massive. If poverty line is enhanced to US \$2 (PPP) around 58 per cent of all workers will slip below it. No less than 75 per cent casual and 60 per cent own account self-employed workers would be categorized as poor (Institute of Human Development, 2014). On the top of it, another well-researched study cautions that the challenge is to create job opportunities for 17 million in each year. (Meherotra, 2014).

All these presented above constitute anti-thesis of employment creation under the rubric of market liberalization and its trickle down effect. While roots of the anti-thesis are traceable in the inherent conflict between labor and capital, populism and political engineering made it possible for the party in power to bring the issue of labor employment in the centre to tell that resolution of such a conflict is possible even under global capitalism. It is, however, an assertion which is laudable. But, the truth is that no political party in India can ascend to power without such assertion. And, the irony is, as the evolving trajectory of political economy of the country suggests, no such assertion is held true at the end of five-year cycle. Anti-incumbency results in and sets an improvised political realignment in motion to arrive at a new equilibrium in the economic landscape to be punctuated not by trickle down but by trickle up effect.

The history of anti-incumbency during last few decades shows that it is an artifact of political engineering of capital on 'economics of survival' of the labor. Social factors are subsumed to it in the final analysis. While impermeable economic structure never allows construction of new political realignment at the expense of capital, growing cry for freedom from unemployment, hunger and insecurity get crystallized in to anti incumbency as a political force to reckon with.

Although the story that follows anti-incumbency is repetitive, we economists, based on our tools of economic analysis being constantly refurbished since their birth hope that 'someday' self-regulated market will bring us employment to live with dignity. It is a kind of 'politics on economics' of the unemployed, the poor, and the deprived ---claiming superiority by one political party over the other in terms of magnitude and scale of the favorable changes that the latter promises to bring about. The so-called 'new development processes' breathe in each successive regime only through magnificence of its 'development pretensions' without challenging the centrality of capital that shape the economic structure functioning in ways it wants.

Of course, one does not trivialize accumulation of marginal changes over the years. However, they continue to remain marginal, stay in discrete forms, but, rules over the nerves of the mainstream development discourse. They are basically constituents of what I have mentioned above development pretension, It is another form of capital, -capital that pretends to bring about development through creation of employment opportunities and finds its investment in disguise only to provide instant legitimacy to the perpetual stay of the new political regime in power. The net result is that the new political regime sails through by way of banking upon it with no effect left on the desirable structural transformation that creates decent employment. The economy is once again left with a crippled labor market with gloomy prospect of employment creation. Economic growth has no bearing on structural change that would have given equal right to the unemployed to participate on a solid footing in the life of their community. On the contrary, by not giving employment to the unemployed, it pushed the economy to low level of investment and growth trap.<sup>1</sup>

It is in this context that the paper persuasively argues why we must shake off age-old prescription of the mainstream economics of capital -led structural transformation for growth of employment based on the dual economy model. While being prisoner of falsehood of academic exuberance that casts shadow on development economics of the marginalized, one needs to understand that the same logic of development is continuing to stem from the early days of liberalization from the same dual economy model. The only difference, however, is that it is being draped in different clothes by successive political regime. Hence, one has no reason to believe why employment scenario would be different even after five years from now. This leads me to work on a niche understanding on structural transformation with a new perspective to explore a world of possibility for employment creation based on the laws of evolutionary biology.

The paper is organized in the following way. Based on a brief review of the experiences of the developing countries including India, the paper argues in its second part that capital-led structural transformation with its false perspective is unfit and counterproductive for employment creation. An attempt is made in the third part to develop a new perspective that can appropriately address structural transformation for employment creation in India. Against the backdrop of the new perspective, fourth part makes a case for construction of niche

structure for structural transformation for employment creation and sketches its framework based on the lessons learnt from evolutionary biology. The paper concludes in the fifth part.

## II

### **Capital- led Structural transformation**

While a large number of literature is available on this subject, my purpose here is to dwell upon the lessons being drawn from them and argue how capital-led structural transformation is inherently constrained to create employment opportunities in a country like India. What it means is that one must view economic development vis-à-vis the extent to which employment is created in highly asymmetrical social arrangements with inequitable access to income and asset. Counting development purely based on growth of GDP in such a socio economic context masks how adverse effect of structural change on employment creation is realized in reality. This assumes immense significance especially when no such structural transformation has taken place at the dictate of global capital under market liberalization that could create decent employment in India. Besides, what is worse and greatly disturbing is that the present political regime in power shows no deviation from the same development footprint that has now no success story anywhere in the third world countries.

All that has been echoing in the policy parlance, in effect, is what Lewis prescribed for third world countries in his dual economy model after the WWII (Lewis, 1954). It was essentially a development concern focusing solely on productivity gains of the economy by way of achieving capital intensive technological breakthrough that the developing countries were lacking after WW II (McMillan and Roderick, 2011). In other words, as economy grows, it restructures away from agriculture in to manufacturing and services. It causes occupational shift towards non-farm sector which turns out to be more remunerative (World Bank, 2008). This is, however, contested by Sanyal and Bhattacharaya (2009) and Tania Li (2010) who have warned against the easy assumption of the inevitability of the linear pathway of structural transformation. According to them, it opens 'new road of enclosures' dispossessing large numbers of rural people from the land, and low absorption of their labor which is 'surplus' to the requirement of capital accumulation.

Besides the limitation of it being oversimplified, its development trajectory has proved to have been counterproductive in capital-scarce countries. For instance, some recent studies reveal that in many Latin American and African countries structural change was not growth enhancing, rather reducing since 1990. The desirable kind of structural change never took place in these countries which was why labor moved from more productive to less productive activities. (Macmillan, Roderick and Inigo, 2014). In other words, structural change is not necessarily growth enhancing even under market reforms. This is why Foster and Rosenzweig (2008) argue that path from largely an agricultural economy to manufacturing and service-based economy is varied and is, therefore, is not clear how policy can influence progress along that path.

Temple goes one step forward to show how modern dual economy model does not fall in line with the Kuznets's casual relationship between sectoral efficiency and economic growth which is associated with occupational diversification in a dual economy model (Temple, 2005; Kuznets, 1966). His line of argument is essentially on efficiency question and argues that sectoral allocations are not efficient. For, there are varieties of factors that may cause productivity to differ across sectors. Besides, changes in the sectoral composition of output may also result in structural transformation. It is not necessarily true that sectoral reallocation of resources could always cause structural transformation. Further, it is argued that the spread of new consumption pattern as a result of the rise in income may cause differentiation of rural product as it ennobles rural goods which stand out for their specific characteristics. It is a sort of commoditization of rural space and values that may not go well with employment creation of the rural folk (Basile and Cecchi, 1997).

Besides, one must underline the fact that capital -led structural transformation in the context of the dual economy model has been the feature of historical experience of development of mostly rich countries. Chenery and Srquin's study with cross sectional data from several countries show this glaringly (Chenery and Srquin, 1975). In the classical structuralist model (Chenery and Srquin, 1986) economic growth is defined as a succession of stages delimited by shifts in sector proportions, as a consequence of the inter-sectoral resource flow from the traditional to the modern sector. During this transformation, due to the increasing interaction among the sectors, agriculture reduces its weight in the economy in terms of its share on employment, value addition and exports.

Within this framework, the most common global pattern of structural transformation especially of the developed countries had been direct correspondence between production structure and employment structure. For example, contribution of the primary sector to GDP of some selected developed countries (including U.K. USA, France .Japan, Germany, Italy and Australia) was less than 5 per cent, while it was 20 to 30 per cent of the secondary sector and around 68 to 78 per cent of the service sector. This is followed by the contribution of primary sector towards employment creation to the tune of less than 5 per cent, secondary sector 20 per cent to 30 per cent and services around 67 per cent to 79 per cent (World development Report, 2011).It reflects high degree of inter-sectoral equality in productivity and income. This is something that the developing countries can hardly witness obviously for its positioning, which is historically determined, in the global economy. But, it does not necessarily mean that they must strive to replicate the same pattern.

On the question of the growth of productivity and movement of labor force out of agriculture, no encouraging evidence suggests the same pattern as it is postulated in the dual economy model. Of course, structural transformation in some Asian countries that witnessed a surge in economic growth in recent past played its role by way of enhancing sectoral growth of productivity at the macro level. However, movement from agriculture was slow (Herrendorf, B,



Rogerson, R, Valentinyi, A, 2013). For instance, in China during 1978-2003, it was differential sectoral productivity growth and the reduction of the relative size of the Chinese government caused most of the structural transformation to take place. However, mobility from agriculture was slow (Dekle and Vandenbroucke, 2012). Latin American countries, as mentioned earlier, witnessed almost the same situation as that of China. It is true that sectoral productivity growth rates accounted well in Latin America with different sectoral reallocations while comparing with East Asia. But, in so far as movement out of agriculture was concerned, it was slow (Ungor (2011)

The Indian experience is somewhat similar to that of Ungor's observation related to Latin America on rural urban migration which is far less. Its structural transformation is slower than that of China. As Hans P. Binswanger-Mkhize observes, China is on the way towards a normal structural transformation. Although structural transformation in the form of a decline in agricultural employment has happened in India, it is a stunted one. For, it primarily generates informal employment which is insecure (HansP.Binswanger-Mkhize, 2012). The author has further observed that India's structural transformation is constrained by the weakness of employment growth in the urban economy most specifically in labor intensive manufacturing.

The growth experience of India after market liberalization presents a mixed scenario in that major contribution of the service sector has been the major contributor to GDP as compared to the other two sectors. However, growth of employment did not score concomitantly. This was at variance with the historical pattern of development of the developed countries. For example, several studies showed how increased growth of the service sector for decades was coupled with lagging employment growth in the same sector (Mitra, (1988), Mazumdar, (1995) Madheswaran and Darmadhikary (2000). Besides, it is important to underline that, although in the Indian context, the share of income originating in agriculture has witnessed a significant decline; there had been no corresponding decline in the share of the households in the agricultural sector (Vijay, R, 2012).

Based on the brief review as done above, I intend to focus on three debatable issues. The first one centers on the basic contradiction between the development perception of a developing country like India and that of the capitalist developed countries based on which dual economy model was constructed. Despite the latter being proved to be unfit and counterproductive, it is imposed on developing countries like India as a part of the goal of intensification of global capitalism. The second one is that structural transformation may not necessarily be growth enhancing even if the market is fully reformed in the absence of appropriate skill, infrastructure, equitable access to resources etc to adequately respond to market stimuli. And, the third one is that the kind of structural transformation country like India has witnessed under global capitalism has failed to encourage people to move away from agriculture to the extent the latter could get rid of disguised unemployment and gain higher productivity.

Despite these fundamental limitations, mapping out of development trajectory based on the oversimplified assumption that development primarily lies in industrialization is an agenda of global capitalism that India can never dispense with. Hence, no reason is found to count agriculture and its allied sectors as growth enhancing and employment generating. No reason exists to seek transformation of the economy based on employment growth. However, seeking the same based on productivity growth is legitimized. And, finally, worst of all, one does not know why triggering off local development process by way of reinforcing indigenous forces is pushed aside as a theoretical burden and looked upon as a barrier in practice to fit in to all pervading 'catching-up' culture (Ray, 2012). The 21<sup>st</sup> century begins its 100 years of journey with the opening of 'rat race' never seen before in India to benefit from the 'benevolence' of foreign investment. The purpose is to set India free from unemployment and hunger!<sup>2</sup>

To bring the point home, the issue is how do we go for structural transformation and seek economic development through employment generation in a predominantly need- based economy where agriculture rules the roost. Besides, why structural transformation is to be viewed necessarily in response to the changes in the quantitative relations between the factors of production including land, labor and capital? (Belloti, 1960) Why not considering qualitative relations as well, in the absence of which it is structurally constrained to produce any significant outcome? For example, reallocation of the right of ownership of factors of production such as land or capital by non-market forces such as state or community may turn out to be a great source of structural transformation. The countries including China, Japan, South Korea and Taiwan have one thing in common despite wide differences in their political regimes and economic policies. All of them implemented land reforms that not only helped them to reduce rural poverty and unleash agricultural growth, but also helped to lay the foundation for rapid industrialization (Boyce, James, Rosset and Elizabeth, 2005). It is needless to mention that it was a change being brought about by the state, a non-market entity (non-price factor).

Similarly, one does not see any reason why transformative impact of social institutions on the structure is ignored. It has a bearing on local culture and exchange behavior. It exercises its influence on laws of increasing requirements (hence, demand), cost structure at all levels of economic operation and choice of technology. It is "social embeddedness" of the economic activity that impacts economic structure (Harriss-White, 2005, Grannovetter, 2005) No role is assigned to it in economic development through structural transformation. All that is assumed is that commodification process that capital seeks to intensify in order to expand its circuit can subsume the social processes and never allows the later to outshine its growth trajectory. It is further assumed that trickle down effect of the commodification process is sufficiently strong enough to create employment and income.

The result, as insinuated constantly, is disappearance of impoverishment. This has, however, never happened, proving it to be totally counterproductive leading to disproportionately rise in

social cost that manifests in several ugly forms (Ray, 2010). The lack of employment creation is one such ugliest form that capital-led structural transformation has produced under liberalization. This is precisely here I intend to argue why do we chase a model of transformation which is backed by a false perspective and, hence, a complete mismatch to a country like India that largely lives in a need-based economy.

### III

#### **New perspective**

In an attempt to construct a new perspective, one needs to look at the prospect of employment creation, to begin with, in non-linear process of structural change. It is not only the social embeddedness of economic activities of the people that differ but also varieties of local conditions that are not homogeneous realities (Bracarense, 2013). For instance, ecological status and its nexus with development imperatives find its variation spatially and over time even within the same geographical limit. In other words, it is important that one recognizes the differences in the interplay of the market forces in different objective conditions constituted by variations of both ecology and social embeddedness as mentioned elsewhere and their differential impact on economic change.

In other words, the objective conditions under which production, consumption and marketing takes place across regions together with the people with different levels of access to them give rise to different processes of economic change with considerable structural variation. Hence, seeking for an appropriate structural change that generates employment and growth in response to price or market forces alone is a theoretical aberration. Additionally, one must recognize enormous contributions being made by the non-market forces to it and therefore, one does not see any reason why it must not be counted. It is ironical that mainstream economics completely ignore the fact that markets are 'stepped in non-market institutions without which they can not function and with which the system is reproduced.' (Harriss-White, 2005). Nobody can deny how character of this set of local institutions is shaped by the local histories (Harriss-White, 2005).

Non-market forces are heterogeneous and have disproportionate impact on living conditions of the people<sup>3</sup>. While complementary relation between both market and non-market is undeniable, it can incredibly contribute to appropriately transform the economic structure for employment creation depending upon how the forces are used and the purpose for which they are used. Once both sources of influence are factored together, economic structure will no longer be defined based on the quantitative relations as mentioned earlier between land (natural resources), labor (population) and capital (technology) (Belotti, 1960) Capital in such a situation will never be assigned the leading role to shape up its relations with other factors. The complex ontology with causal interaction between these entities with varied characteristics yields non-linear interactions (Saviotti, 1996). This is what the reality is and, hence, this must be given entry to the formation of the new perspective. . Under the condition of

non-linearity, question is how does capital structure and restructure its relation with labor and land (nature) in production, consumption and distribution to create employment. It is an immensely significant issue in the debate on the structural transformation of a country like India. For, we already know how we have ended up with distressful outcome of restructuring process of relations of capital with labor in last three decades of economic liberalization, which is assumed to be working only under the condition of linearity.

Lastly, and, most importantly, it is the linearity condition that assumes that every human species living in the earth has choice at the margin, and, therefore, the principle of utility maximization works equally for every one. While the theoretical edifice of capital-led structural transformation is based on this 'thumb' rule, which is false, the truth that majority of the Indians live in a need-based economy<sup>4</sup> and never have choice at the margin is completely bulldozed. The only perspective which is followed instead is a demand based economy. Ironically, this has no or little relevance to the people who live in the need based economy. This line of economic differentiation between the need based economy and the demand based economy that defies the condition of linearity and incorporates inhomogeneous realities must be brought to the centre to reconstruct the existing understanding about structural transformation for developing countries like India. And, I argue that it is the relevant perspective that gives one reason to hope for economic growth through creation of decent employment.

### ***Need-based economy***

Central to the need based economy is meeting of the biological needs of the humans for survival. Then come other needs in a hierarchical form (Afxention, C.P, 1990). Whatever it is, the undeniable link of the latter to the former must not be underrated while tracing structural evolution of an economy like ours. Humans enter in to a specific relationship with land (nature), labor (population) and capital (income) in need-based economy to meet their basic needs. It also gives rise to an economic structure that rears exchange relations. However, difference is that neither the structure nor exchange relation is determined here by capital. They are determined primarily by the conditions of survival needs. In other words, exchange relations are not entirely determined by prices. The latter is relevant to them to the extent purpose of meeting of their survival needs is met. One must note that the non-price (non-market) mechanism that grows out of social metabolism at the local level plays an invaluable role in this regard. It protects people living in the need based economy from the onslaught of the market forces by means of promoting informal exchanges.

Exchange relations are reciprocal in many cases even in the non-traditional economy. It means that they are yet to be monetized. ((Polanyi, 1942), For example, community institutions in several villages in India are engaged in caring degraded natural resources by means of forest regeneration, water conservation, grassland development etc. Villagers collectively decide about the course of action and develop the norms for distribution of the resources grown

equally to all (Ray, 2008). They work voluntarily for development of the degraded natural resource base and, in exchange of their labor power being expended; they could meet several basic needs from the regenerated resources for survival. It, of course, does not mean that they are not alien to formal market transactions for other necessities. They enter in to it only to meet their basic needs for survival. One may quote several such examples that show how economic activities are performed without allowing exchange relations to become commodified and profit making. They show that entry of social factors in to the exchange relations even in the non-traditional economy can keep people outside the sphere of influence of the market forces. These are some irresistible social realities that are never recognized in the mainstream analysis. But, they greatly serve the purpose of the people living in the need based economy.

It is somewhat similar to what is found in the traditional subsistence economy or indigenous economy where exchange is not for profit but sustenance of individual, families and the community (Kuokkanen, 2011). Here, resources are gathered from the environment for human consumption. It is also a need based economy that follows subsistence mode of production and never complies with the capitalist logic and goals<sup>5</sup>. Instead, they are signs of independence, self sufficiency and self reliance. (Aslaksen, I, et, al, 2008) But, there are cases that exemplify how subsistence mode of production is often mixed with capitalist production which is superimposed on the former. Despite this, it survives in a modified form. Peter Usher explains that the co-existence of the two are not isolated and unconnected enclaves, rather they are interrelated parts of a larger social formation of industrial capitalism (Usher, 1982). Although they become an integral part of the industrial capitalism, their economic activities and exchange behavior are largely influenced by the imperatives of the need based economy. It is no wonder that large part of India lives in this economy.

While both situations are pointing to existence of need based economy at different levels of commodification, I argue, capital has largely failed to transform human needs in to effective demand in both cases whatever be the reason in the ultimate analysis. Say's law seems to have lost its relevance in the first quarter of the 21st century when industrial capitalism is at its zenith. It is true that new needs are continuously being created by capital, but, they are not being transformed in to effective demand at the same speed. The lack of development of home market for industrial goods, for example, may testify this assertion convincingly (Ghosh, 2014).

The question is: how do people who fail to convert their needs in to demand survive in a predominantly market economy that constantly seeks intensification of capital and expansion of its circuit through exchange relations? They survive by means of constructing niche structure to create survival conditions through promoting informal exchanges. It is a natural requirement that they create by way of banking upon the traditional institutional arrangement, the immediate support system, to ensure their survival against the onslaught of market forces. It is creation of a small space by the powerless independent of the large space of the powerful based on the condition of mutuality. People living in the need based economy as against

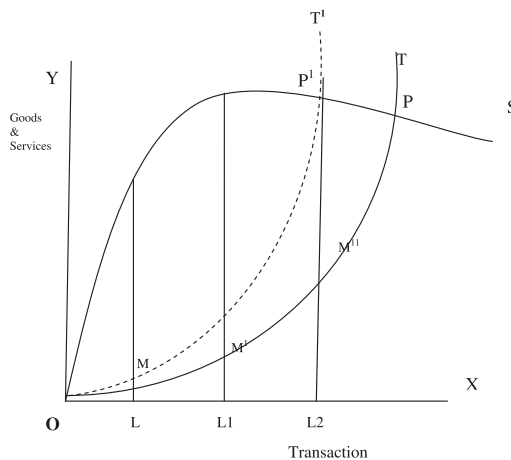
demand based economy, minority living as against majority ( in terms language, caste, religion) or small producers against large producers may illustrate how humans living is possible at the edge through niche creation and can resist the onslaught of the latter for their survival based on the principles of solidarity.

However, it never prevents them from competing with each other. They compete only to gain foothold in the economy and society for meeting their basic needs. They enter both monetized and non-monetized exchanges for the same purpose. Their entry in to monetized exchange is never determined by the imperatives of the 'choice at the margin' or utility maximization. Hence, their demand for goods and services in response to the market prices make no sense in their economic calculus. Despite this, they are being treated by the mainstream economics as having same price and demand responsiveness to market and assumed to have been benefiting equally from the latter.

In fact, no distinction is made in the mainstream economics between those who can have 'choice at the margin' and who cannot have the same. And, then, it thrusts objective of utility maximization on those who do not have choice at the margin (Harriss-White, 2005, Peet, R and Hartwick, E, 2010). It does so assuming that the same motivational force equally influences their behavior towards market demand. This is, however, contrary to meeting basic needs for survival as the only motivational force of the people living in the need based economy. They enter in to monetized exchange in case no alternative is available in the sphere of non-monetized exchange.

Figure 1 shows how combination of commodified (monetized) and non-commodified (non-monetized) exchange at different proportions can influence economic transaction in a need based economy.

Figure 1



Total transaction through monetary and non-monetary exchange is shown in x axis while goods and services being procured is shown in the Y axis. OT curve that shows monetary exchange or commodified exchange slopes upward indicating that commodification of the economy rises along with capital intensification over time. So is monetary exchange. It means that, accordingly, non-monetary or non-commodified exchange must decline. This is shown by OS curve. Figure 1 shows that at point P and above, economy is completely monetized having only monetary exchange. Non-monetary exchange takes place below P. Hence, need based economy lies below this point. As one proceeds from O, need based economy gradually becomes monetized.

There exist innumerable combinations of monetary and non-monetary transactions between O to P with which people living in the need based economy engage. However, all those living above M' or M'' are vulnerable to slip back towards say point M or below so long as they remain below P depending upon the strength of the pull and push factors. It reflects more of incidence of 'transient' vulnerability' to survival crisis showing a better off situation ( assuming monetary exchange indicates a better off situation for it gives individual to command more goods and services) at one point of time, while 'worse off' in some other point of time. The situation of this kind appears to be incomprehensible and may leave one to wonder about the flexible sources of vulnerability. However, if development perception is built on the need based economy and is considered in its totality, one may gain relevant insight and discover directions of development through employment creation. It is roughly more than 70 per cent of the total population in India, as mentioned earlier, may be considered to be living under 'transient vulnerability' in the need based economy.

If the economy evolves through transforming its economic structure shown by the shift of OT to OT'' leftward (shaded line OT') more consumption of some goods and services (above LM or L'M' in Figure 1) will enter in to monetary exchange, but, people will continue to remain inside the need based economy. Only those who are lifted above P or P' are said to have completely entered in to monetary exchange or commodified regime. In view of migration of the workers from agriculture to non-agriculture (industry) as shown in the dual economy model of capital-led structural transformation, a few may be lifted above P. They are absorbed in the non-agricultural sector. Similarly, those few who are much above subsistence farming and follow capitalist farming remain above P. All these show how differential survival bases are created as result of evolution of the economic structure through natural selection. This is, however, an illusory development process that country like India has been witnessing since Independence.

Even if the differential survival base shows some improvement within the need base economy (as indicated by the dotted curve in Figure 1), it is more likely to slip back to its original position especially in the rural economy context. This happens due to unequal ecological exchange to which rural economy that harbors significantly a large need based economy give in. The prospect of elevation of the people from the need based economy becomes gloomy with the

growing accumulation of the loss as a result of unequal ecological exchange (Foster and Holleman, 2014). It outweighs gains, however little it is, that accrue to the rural economy due to capital-led structural transformation and pushes back the latter

It is the loss of use value in exchange (or exchange of more ecological use value for less) that the rural economy incurs due to extraction of its resources including agriculture and natural resources. It is not the unequal exchange due to unfavorable terms of trade. (Byres, 1991). This is much more harmful for the rural economy due to the loss of regenerative capacity of resources. This happens for resource base is not compensated in terms of use value<sup>6</sup> after utilization. In the case of agriculture, loss is discernable in terms of 'agro ecological rift' that occurs due to continuous depletion of significant properties of soil (Ray, 2015).

If the value of the embodied energy (emergy, a measure of real wealth) is incorporated in to the accounting process, then one may find that money price being received for exchanging resources grown in the rural eco-system is much lower (Odum, 1995, 1996) The emergy exchange ratio is thus heavily biased against the rural economy especially for the poor who survive largely by way of keeping pace with the local eco system. In other words, cost that the local ecology bears in producing these goods is never compensated<sup>7</sup>. It entails ecological loss that accumulates over time. The immediate casualty is those who live in the need based economy in rural areas and whose survival is interwoven with the local ecosystem. However, the rich farmers whose economic gains may not be frittered away in the short run by the ecological loss consequent to agro ecological rift can adapt to the new situation with different survival and reproductive success, (as shown by P and P' in Figure 1).

With all these features of the need based economy no sign of dilution of its structure is yet in sight despite boosting up capital –led structural transformation under global capitalism. While the latter failed to script encouraging development narratives, size of the need based economy swelled up over the years as a result of immeserized growth, environmental degeneration, inequality and deprivation under market liberalization. The expansion of the size of the need-based economy means contraction of the home market. For, latter expands through conversion of need to demand or conversion of the need-based economy to the demand-based economy. One fails to discern how Indian economy with a large sized need based economy could achieve an optimum rate of conversion of the same to ensure desirable employment creation.

It is against this backdrop that one needs to understand the political economy of anti-incumbency in election. Anti-incumbency, in its truest sense, reflects a desire for a change of living to a better state –above the daily struggle for meeting basic needs. I argue that it is possible to achieve it if the structure of the need based economy is transformed by means of constructing niche structure at the dictate of the people (labor) and nature (land), not at the dictate of capital. The economy seems to have been pushed into development chaos, which, can be wriggled out, no doubt through structural transformation. However, it must be led by construction of niche structures, not by capital.



## IV

### Constructing Niche structure

The theoretical argument in favor of construction of niche economic structures, I intend to develop here, is based on the Niche –Constructing Theory (NCT) that has originated as a branch of evolutionary biology. It emphasizes the capacity of organisms to modify their environment and thereby influence their own and other species' evolution (Kendal, et.al, 2011). It is defined as 'organism driven environmental modification' (Smith, 2009) and differs from the standard evolutionary theory (SET). Not only does an environmental cause changes in species through natural selection, but species also cause changes in their environment through niche construction. While contextualizing NCT for structural transformation, human species (labor) living in the need-based economy may seek to change the environment through constructing niche economic structures. Niche structure then evolves not only through driving human organisms to modify their own environment (for improvement of their own welfare through employment creation) but also others' environment and other structures also (for improvement of others' welfare through employment creation).

In other words, it opposes structural transformation in response to market forces that creates differential survival base and reproductive success through natural selection as espoused by the standard evolutionary theory. Natural selection creates employment for those who prove themselves fit for the market to serve capital or those human species that are capable of being adoptive to the situation as created by capital for its own interest. It means that those who cannot prove themselves fit for the market, number of which is very large, remain outside of it. It is here that one finds relevance of the niche constructing theory.

Niche structures for production or income generating activities that create employment can be constructed by those in the need- based economy that are not capable of being adoptive to the market and evolve through natural selection. Even if private needs are found difficult to be met privately by the people living in the need based economy, they can be converted in to collective need. Niche structure even in this respect can be constructed that responds to such needs and create employment. Capital may be required at each stage as the niche structure evolves over time, but, labor is assigned the primary responsibility to construct it and, by doing so, they bring about their own and others' economic improvement. Once niche structure is rooted, it may be able to modify the dominant (main) economic structure later at some stage of its progress. It makes no difference if both economic structures, main and niche, evolve simultaneously based on their respective evolutionary logic. The relationship between the two is however, reciprocal. For, niche construction provides an endogenous casual role in evolution which is reciprocal to that of selection.

However, in the absence of any structural reversal, need based economy continues to remain appendage to the dominant economic structure. Neither the people living in it could gain through trickle down effect in the form of employment creation nor could effectively enter in to

its formal market exchange. Although they are inter-linked with the wider marketing network, they live in an economy which is a stunted one and constantly threatens them to lose their economic resilience. This gives enough reason for them to modify their own environment to seek better prospect of their living through creation of employment opportunities for themselves. The route to attain this objective is, as mentioned above, construction of niche structures, which can be materialized through developing self-organization within the framework of 'comprehensive co-operation' (Yang and Wen, 2011).

### **Emergence of self-organization**

Self-organization that emerges as a result of interaction between the organism and its environment (Casti, 1997) gives rise to new structures that could not have been imagined initially (Morrison, 2005). It is actually emergence of new practices and behavior, a niche institution which is considered to be one's best 'fitness landscape' for survival and development in competitive environment (Kauffman, 1995). The move to finding the best situation in the need-based economy, in the present context, for example, constantly propels one towards the point of self-organized criticality (Bak, 1996). The new internal system that emerges in response to the changing interactions between internal and external environments lay foundation for the construction of niche structure within the framework of 'comprehensive co-operation'. (S, Yang and Wen, 2011)<sup>8</sup>.

Several studies show how self-organization emerges and niche structure is constructed in order to ensure better living conditions. For example, Smith observed how subsistence economies that were employed by the small scale indigenous societies in the woodlands of eastern North America, prior to European contact, were able to modify and enhance vegetation communities through a range of active and sustained patterns of human niche construction. They captured a larger proportion of total biotic energy (Smith, 2009). In India, examples are abundant in the field of natural resource management that show how people in arid condition brought back ecological resilience, recovered forest and grassland through their own efforts without having to depend upon the mainstream economic structure. It is again construction of niche structure that gave rise to a different meaning of development through a different relationship between vegetation, land, capital and people (Ray, 2008).

Even in the field of agriculture, one can cite several examples that show how people collectively brought back traditional eco-friendly agricultural practices that have lasting positive impact on the livelihood of the small farmers in India (Sharma et, al, 2014, Sweta, 2014). The most important aspect of emergence of these types of self-organizations in the hinterlands is that capital is never assigned the central role. For, it has the natural tendency to reproduce the same system of resource extraction from the periphery and expand its capital circuit.

The niche structures in the form of self-organization are constructed by the labor (people) in collaboration with the land (nature) ( It is in the sense that natural resources are not exploited

by labor beyond the point it degenerates) to find their new engagement in income generating activities related to production, distribution and consumption. These self-organizations are no longer appendage of the mainstream economic structure. They maintain their relative autonomy guaranteed by the local interactions among sectors. It is the endogenous growth process (Bellandi, 1994), which is triggered with the construction of a “new geography of centrality and marginality” (Sassen, 1994 from Elisebetta, p 6). It also defies linearity views of causality between agency and structure (Morrison, 2005, Giddens 1984).<sup>9</sup>

It is reinvention of workers' co-operatives, an independent creation of the workers, not as protégé's either of the government or of the large capital (Marcuse, 2015) that surfaces as an immediate option to choose within the framework of 'comprehensive co-operation'. It can even take the support of the state but being fully conscious that it is not ruled by it. The framework that it chooses to work is an integrated one in that all farm and non-farm activities including services (in any form including education and health), business, marketing, processing and production are mutually inclusive. While niche structures rests on divisibility of capital, its ownership is collective that valorizes labor (Marcuse, 2015).

It is true that they are pushed to become their own capitalists by being bound by market pressures. But, self-exploitation in such situation may prove to be a better option than being exploited by others (Marcuse, 2015). However, the question is: are they going to be endangered by the onslaught of competitive pressure of large private capital? Perhaps not. For, they are independent workers'co-operative enterprises, not individual ones. Their collective efforts that they make for their survival and growth may have repelling effect on such competitive pressure and may never allow destroying their economic resilience. Besides, as mentioned earlier, state as a facilitator may have to create some space to mediate their prospect. However, this must not be understood as protection being provided by the state to the small from the large ones.

These co-operatives are conceived to work altogether in a different plane and characteristically different in their functioning and orientation unlike the varieties of co-operatives countries like India and China have been nurturing for long. It is needless to mention that both countries witnessed a surge of co-operatives to a phenomenal extent in the recent past. However, the truth is, as several studies reveal, they are far away from the goals being set to achieve. Take India for example, growth of the co-operatives has been driven primarily by the government action (Vaidyanathan, 2013, Ray, 1998) and far from being able to claim that they are self-reliant. Not to talk about their inefficiency that has crippled its prospect of being independent of political patronage<sup>10</sup>.

In China, it is 'dragon -head enterprise,' a specialized farmers' co-operative is promoted with preferential policies of the government since 1991. It is venture of 'company+ household' in that company is the integrator through which households are connected with the market. It is perceived as 'win-win' formula for both companies and households (Hairong, Y and Yiyuan,

2013). It is what Li calls “The Philippines path” (Hairong, Y and Yiyuan, 2013) an American model of agrarian capitalism that has damaged rural livelihoods in Philippines. While in China, it has benefited a few, an unequal relationship is built in to the system of production, transportation, circulation, finance etc that has led to result in squeezing rural producers (Hairong, Y and Yiyuan, 2013). The other problem is that 'co-operation' has become exclusive domain of the government officials and the elite while the ordinary farmers are reduced to mere spectators (Zang, D, 2011). While most of them are fake, exist in the name sake, rest are controlled by the rich farmers<sup>11</sup>. They are actually dragon –head enterprises on 'company + households' putting on new hats as co-operatives (Zang, D, 2011).

However, lessons learnt from the experiences of co-operatives of Nanjie village of Henana province of China are different and seem to enrich one's perception as to how niche structure could be developed in countries like India for structural transformation and employment generation. Co-operatives in this village teach us how human needs are collectivized than privatized in which need is treated as personal concern to be fulfilled through personal wealth (Ratner, C. 2015). Here production and distribution are geared up according to human needs, not according to market demand. Hence, market exchange based on exchange value creation is eliminated by the production and distribution on the basis of needs.

Similarly, experience of Emilia Romanagna, a region of four million people in Northern Central Italy is equally rewarding. A network of consumers, farmers and worker-driven co-operatives has been in existence for last 150 years based on 'reciprocity'. Not only income per person is 50 per cent higher in Emilia Romagna than the national average, but also, all co-operatives return 3 per cent of profit to a national fund for co-operative development (Lappi, 2006). It is totally 'new entrepreneurial disposition which sees the success of rival firm as intimately bound up in the success of one's own' (Restakis, 2000). It is another form of economics of solidarity (Ray, 2012) that acknowledges how mutual insurance can transform economic structure to create decent employment. One may cite several such examples to illustrate how a new economic structure is comprehensible without capital being assigned the responsibility of bringing about such change.

However, one does not have much to learn from the experiences of what is called 'Neo-liberal Co-operation' which is a corporate form of co-operation promoted under the auspices of the National Co-operative Business Association (NCBA) of USA (Ratner, , 2015) It never operates independently and is heavily funded by the US AID (Ratner., 2015). Private –capital have borrowed some of the ideas and selling concepts of co-operatives to appear as consumer friendly (Cetina, 2011). Examples are abounding that show how private corporate negotiate with the state for support in order to operate in spaces where they have to recon with cooperatives in the same labor and commodity markets. This is especially true in Italy where co-operatives thrive in agriculture, retailing, public works etc. (Cetina, 2011).

While some claims in terms of share holding co-operatives promote wealth equality, corporations promote concentration of the same. It is true that one can not have more than one share in co-operative, therefore, equality of decision making is ensured, but, it never entails substantive co-operative content about how production and distribution are organized (Ratner. 2015). What may be relevant is developing a small set of institutions that defines the heart of a new type of economy. They are self-managed and guided by the principles of solidarity, diversity and ecological sanity. No socio-political and economic content could influence their democratic decision making process (Ratner, 2015)<sup>12</sup>.

The gradual evolution of the niche structures of self-organization over time may have declining effect on the hegemonic control of the mainstream structure. It paralyzes the routes through which surplus is extracted and lends credibility to the niche structure to evolve further at a higher level. It may also ensure better survival conditions for all and defy the principles of the growth and prosperity of a selected few who adapt to the new situation to evolve through natural selection (Morrison, 2005). The deprived social groups who are structurally compelled to be the source of surplus extraction by large capital by way of generating low paid jobs for them, as it happens now (Ghosh, 2014) may have choice to leave such jobs. They can now exercise their choice to opt for a better one.

They may organize themselves in to large subjects and negotiate and transact with the state and market (Yang and Wen, 2011). It enables them to respond to the market forces while functioning within the framework of 'comprehensive co-operation'. The ecological cost that has been accumulating due to unequal ecological exchange and constantly pushes the need based economy to low, may find it being addressed for resolution within the same framework. The framework, therefore, has two critical thresholds within which misery of both human and nature can be addressed. While the first one is the limit beyond which land and other natural resources is not extracted beyond a point, which is called biophysical limit and the second one is the limit below which well-being of the people do not fall. This is called "ethicosocial'limit (Daly, 1996)<sup>13</sup>. According to Daly, it is 'safe and just space for humanity' that lies between these two critical thresholds.

While validity of Daly's observations is true for all economies of the planet and its relevance goes beyond the realm of growth of the need- based economy, they appear to have immense operational significance for the construction of niche structure in the need –based economy. Two reasons may be cited for this. First, it is the unequal ecological exchange, as mentioned earlier, that the need- based economy is subject to and for which the loss of ecological resilience is imminent. This can be stopped if the niche structure evolves in response to the biophysical limits. And, the second one is that well- being of the people is not allowed to fall below ethico-social limit This can be achieved mainly through creating decent employment opportunities.

While it is possible to suitably address these concerns through construction of niche structures within the given thresholds mentioned above, the need –based economy can set off a large

terrain of opportunities for creating decent employment. However, it is necessary to bear in mind that creation of decent employment above the ethico-social limit happens only when labor valorizes, as mentioned earlier, its own value rather than allowing capital to do the same (Negri, 1984, Tronti, 1979)<sup>14</sup>. It is an installation of a process of self-valorization that eventually points to 'beyond' of capital (Hardt and Negri, 2001)<sup>13</sup> in that capital and labor may not oppose each other (Marcuse, 2015)

## V

### Conclusion

While opinions may not differ much on the need for structural transformation for employment creation, the question is how to go about it in a country like India. I have argued in this paper that capital-led structural transformation learnt from the growth experiences of the capitalist developed countries has proved to have been fatal in this regard. True, it facilitates growth of capital intensive industries. But, they never create employment to the extent they are being projected to do so under the influence of global capitalism. Much deeper predicament is construction of flawed theoretical perspective on dualism based on the differences that exist between the performances of agriculture and industry. Despite the logical formulation being drawn from it containing false assertion and yielding unspeakable employment scenario, the state appears to be beholden by it for employment creation.

The paper argues that exploration of structural dualism based on sectoral performance masks their dependency relationship in that one grows at the expense of the other. The mainstream economics never recognizes this, but, oversimplifies their relationship and fixes the problem of employment creation to technology. While this is no less than economic reductionism, no evidence also suggests that capital-led structural transformation has ended up with the adaptation of labor intensive technology in any developing country under globalization in the recent past so that unemployment problem could find its resolution. And, wherever any employment is created through labor intensive technology, its foundation remains shaky and it undergoes protracted struggle to carve out a niche in the periphery of the economy.

Taking a cue from here, the paper recognizes that dualism actually exists between the need-based economy and the demand-based economy. It is needless to point out that response of each economy to market forces varies greatly from each other. In other words, economic behavior of the people as a mark of response to the market forces is not uniform. This is an assumption contrary to what the mainstream economics postulates and lends credibility to the justification of the construction of niche structure. The paper argues that the drive for structural change must begin in the need-based economy since it is structurally constrained to create employment; if at all state is committed to economic development through employment creation. To remove the structural bottleneck, the paper suggests construction of 'niche structure' - a step towards structural transformation. It is an independent creation of workers'

co-operatives in which ownership is collective and labor is valorized. Of course, reallocation of the ownership rights to resources that reinforces the process of construction of niche structure can hardly be ignored.

## Notes

1. For, higher employment levels lead to higher purchasing power that triggers of higher investment and growth (pollin, 2012)
2. States in India are competing with each other to attract foreign investment. While such a trend reduces the internal forces of change and development in to insignificance, development ratings go up, as it were, with the rising flow of foreign investment. Why is it that no such rat race is found to reduce unemployment, hunger and malnutrition?
3. Non-market forces refer to state, community, culture, social and power relations, local eco-system etc. They refer to the internal and external factors that interchange and conflict with market. Since the publication of the 'great Transformation' (Polanyi, 1944) the concept of non-market emerged to refer these factors to assist market institution to function. Non market forces are found to function at four levels including societal, firm, organizational and as corrective mechanism.(<http://en.wikipedia.org/wiki/nonmarket>).
4. 70 per cent of the rural households in India are accounted for having marginally operated land holdings. Most of the households are unlikely to be capable of having work or income sufficient to meet their survival need (Hazel et, al, 2007) Based on the data from the 59<sup>th</sup> Round of the NSS for 2003-04 it appears that 31 per cent of the rural households are landless, 30 per cent have less than 0.4 hectares of land (about one acre) and only little over 5 per cent have more than three hectares of land. In view of increasing incidence of landlessness, situation may be worse than what is shown here. (Corbridge et. al, 2014). In the non-agricultural sector, the self-employed and those working as wage labor or working on sub-contracting are all categorized as employed but majority of them are 'poor' as mentioned earlier. This category of population also live in the need based economy. This is the economy what Sanyal et.al calls the economy of surplus or 'excluded' labor, who does not contribute to capital accumulation and constitute non-capitalist production base (Sanyal and Bhattacharaya, 2009).
5. The primary goal of capital is to make profit. Hence, activities that are undertaken related to investment, production, consumption and distribution are all determined by their relative efficiency in generating profit. Development of education, skill or human manpower technology development etc. - each and every input is chosen according to the dictate of capital that in turn dictates market.

6. The loss of soil nutrients due to capitalist agriculture in England during the early to mid-Nineteenth century was strongly criticized by Justus von Liebig in Germany and James F, W Johnston in Britain within the discipline of agricultural chemistry. It was but robbing of the soil of some countries by others. Liebig in his work on Organic Chemistry and its application to Agriculture and Physiology in 1840 diagnosed the problem as due to depletion of nitrogen, phosphorus and potassium with the essential soil nutrients ending up in the cities where they contributed to urban pollution. Building on this Marx argued that disruption of the soil cycle in the industrialized capitalist countries is 'a rift' in the metabolic relation between human beings and nature. The capitalist production, according to him, does not allow constituent elements being consumed by man in the form of food and clothing to return to the soil. (Foster, 2013).
7. The key to Odum Theory of unequal ecological exchange is emergy concept; it is 'embodied energy'. The essential idea of 'embodied energy' was one of the past energy, no longer physically present in the same form or degree that went in to making an object or product or service and transform them in to 'units of one kind'. It is 'transformity', defined as the 'EMERGY' of one type required to make a unit of energy of another type. (Foster, J. M and Holleman, H (2014). What it means is that an area that receives largest EMERGY receives the largest value as result of which its economy grows. Raw products such as minerals, rural products from agriculture, fisheries and forestry, all tend to have high EMERGY exchange ratios when sold at market price. However, the problem is money is being paid for human services only. It is not paid for the extensive work of nature that went in to making these products. Exchange ratio determines only the relative benefit in monetary terms. The local economy is hurt when development takes more EMERGY in exchange of less of it (Odum and Arding, 1991).
8. Here Yang and Wen conceived "comprehensive co-operation" based on their experiences in rural China. Co-operation among the people is comprehensive when it is treated instrumental to act upon all inter-related activities including finance, marketing and production for the betterment of the rural poor. The same endeavor can be extended to health and educational improvement so as to improve living conditions of the people and create employment (S, Yang and Wen, 2011).
9. Niche structure in the present context may draw inspiration from NCT, but, differs from the structuration theory of Giddens (Giddens, 1984) in that former is basically founded upon non-linear relationship between agency and structure. Here, agency and structure, unlike structuration theory, inform each other and co-evolve (Kendal et al, 2011). Hence, niche creation is an adaptation and development in the interests of the survival in a changing environment (Morrison, 2005). While relationships are



collaborative and co-operative to promote change, society and its elements are networked, interconnected, interdependent and mutually reinforcing.

10. In 1951 the country, it is reported, had 1, 81,000 co-operatives of all kinds with a total membership of 15.5 million. In 2007- 08, there were some 1, 50,000 primary credit co-operatives with a membership of 180 million which disbursed Rs 2,000 billion in that year. In that year, there were some 2, 60,000 non-credit primary societies of all types with a reported membership of nearly 250 million and an annual turnover (in 2004-05) of approximately Rs 700 billion (Vaidyanathan, 2013).
11. Among the 2, 72.000 co-operatives formally registered by 2010 in China, it is estimated by many observers that 80-95 per cent of them are fake (Liu, 2010).
12. Solidarity that continuously refurbishes emotional and spiritual integration of the minds of the poor is another form of social capital. The networking between them as a means to complement and supplement each other lends incredible support to their social institution to gain stability. The experiment by DESMI AC, a Mexican NGO based in the southern state of Chipas in Mexico, is a unique example in this regard. They had around 200 communities of the poor throughout Chipas engaged in several income generating activities managed by them. The aim was to promote collective solutions to personal or family problems based on mutual support. (Jorge 2001: 640-43).
13. No alternative is discernable than to develop development agenda of any country based on it. It indicates a possible way out to save the humanity from its imminent collapse. Particularly, most of the national economies of the third world working primarily based on the market forces witness just opposite to what Daly suggests. No limit on either side is maintained leading to result in unprecedented loss of humans and nature. It has happened because responsibility is assigned to capital to determine its relationship with labor and land while seeking economic development. Daly begins his argument by saying that it is impossible to separate economic activity from the bio-physical environment in which it takes place. Similarly, low quality of life never ensures sustainable society. According to him, safe and just space for humanity lies between these two critical thresholds. The combination of the maximum feasible strains on the environment and the minimum thresholds for well-being gives rise to a space where critical thresholds in regard to natural systems are not crossed and, at the same time, human well-being is ensured.
14. Negri's notion of self-valorization shows how value, creativity and innovation in production are also created by workers themselves, rather than by capital. It indicates a process of valorization which is independent of capitalist valorization –a self defining and a self-determining process which goes beyond resistance to capitalist valorization to self-constitution (Negri, 1991, cleaver, 1992).

## References

- Afxentiou, panayiotis, C (1990): 'Basic Needs: A survey of the literature' Canadian journal of Development Studies, Vol XI, No 2, 1990. ( pp 241-257).
- Aslaksen, I, Dalimann, W, Holen, D Hoydahl, E, Kruse, J, Popel. B, Stapleton, M and Turi, E.I (2008): 'Interdependency of Subsistence and market economies in the Arctic' The economy of the North. P 76 (pp 75-98).
- Bak, P (1996): How nature works New York, Copernicus (From Morrison, K (2005) op.cit
- Basile, E and Cecchi, C (1997): "Beyond the sectors -An analysis of economic differentiation in Rural economy 'paper presented in the 48<sup>th</sup> Seminar of the European association of the Agricultural Economists(EAAE)Dijon,20-21march. [www.academia.edu/3122814/Beyond\\_the\\_sectors\\_an\\_analysis\\_of\\_economic\\_differentiation\\_in\\_rural\\_economy](http://www.academia.edu/3122814/Beyond_the_sectors_an_analysis_of_economic_differentiation_in_rural_economy), p 10 (pp 1-18).
- Bellandi, M (1994): Struttura e cambiamento economico nei distretti industriali, in Sistemi produttivi locali: struttura e trasformazioni, G. Garofoli and R. Mazzoni (eds), F.Angeli, Milano [from Basile, E and Cecchi, C (1997): " Beyond the Sectors –An Analysis of Economic Differentiation in Rural Economy" Paper presented in the 48<sup>th</sup> Seminar of the European Association of Agricultural Economists(EAAE)[www.academia.edu/3122814/ Beyond\\_the\\_sectors\\_an\\_analysis\\_of\\_economic\\_differentiation\\_in\\_rural\\_economy](http://www.academia.edu/3122814/Beyond_the_sectors_an_analysis_of_economic_differentiation_in_rural_economy) p 9 (pp 1-18).
- Belotti, L.M (1960): "Economic Structure and Economic Development" American Journal of Economics and Sociology, Vol.20, No 1, p 73, (pp 73-80).
- Boddewyn, J.J (2003): "Understanding and advancing the concept of Non-Market" Business and Society, 42(3): pp 297-327.
- Boyce, James K, Rosset Peter and Stanton, Elizabeth A (2005): "Land reform and Sustainable development" Working paper No 98, Political economy Research Institute, University of Massachusetts, Amherst. (pp 1-22).
- Bracarense, N (2013): 'Economic Development in Latin America and the Methodenstreet: Lessons from History of Thought', Journal of Economic Issues VOL XLVII No 1, March p 115,(pp113-134).
- Byres, T.J (1991): Agrarian Question, in T. Bottomore (ed), Dictionary of Marxist Thought, Second Edition, Basil lackwell, Oxford (from Basile, E and Cecchi, C ( 1997) op.cit.
- Casti, J (1997): Would be World, New York, John Wiley and Sons (From Morrison, K (2005), op.cit).

Cetina, Gabriela Vargas (2011): 'Corporations, Co-operatives, and the State, Examples from Italy' *Current Anthropology*, Vol 52, April, (pp s127-s136).

Chenery and Syrquin, (1986): "Typical patterns of transformation" in H. Chenery, S. Robinson and M. Syrquin, *Industrialisation and Growth*, Oxford University Press, New York.

Chenery, H. B and Syrquin, M (1975): *Patterns of Development*, London, Oxford University Press, (From Macmillan, M and Heady, D, 2014 "Introduction –Understanding Structural transformation in Africa" *World development*, Vol. 63,(pp 1-10).

Cleaver, H ( 1992): *The Inversion of Class perspective in Marxian Theory: From valorization to self-valorization* , in W. Bonefeld et al (Eds) *Open Marxism* , Vol II (pp. 106-44) (London : Pluto Press) [From Bohm, S, Dinerstein, A. C and Spicer, A ( 2008): '(Im) possibilities of Autonomy - social Movements In and Beyond Capital, The state and development', Working paper No WP 08/13, School of Accounting, finance and management, University of Essex, November ( pp 1-16).

Daly, H.E (1996): *Beyond Growth-The Economics of Sustainable Development*. Boston: Beacon Press. (From Scharbert, A, Stgl, S and Wackerle, M ( 2014) " An Institutional approach to socio-ecological transformation : agency, structure and evolutionary political economy'. Preliminary draft prepared for AK 2014 workshop 'Future of Capitalism'. Vienna University of Economics and Business, Department of Socioeconomics, Institute for Ecological Economics (corresponding author [annika.scharbert@wu.ac.at](mailto:annika.scharbert@wu.ac.at). (pp 1-19).

Dekle, Robert and Guillaume Vanden Broucke (2012): "A Qualitative Analysis of China's Structural transformation" *Journal of Economic Dynamics and Control*, 36, 119-135 (From Herrendorf, B, Rogerson, R and Valentinyi, Akos, 2013, "Growth and Structural Transformation "Working Paper 18996, National Bureau of Economic Research, Cambridge, <http://www.nber.org/papers/w18996>.

Dreze, J and Sen, A (2012): "Putting Growth in its place", *Yojana*, 56 ( January), 35-40.

Dreze, J and Sen, A (2013): "An Uncertain glory: India and its contradictions" New Delhi: Allen Lane, Penguin Group.

Foster, A and Rosenzweig, M (2008): *Economic Development and the decline of Agricultural employment* . *handbook of Development Economics*, 4, (3051-30830 [ from 'The role of Rural –urban Migration in the Structural Transformation of Sub-saharan Africa' by Alan De Brauw, Valerie Mueller and Hak Lim Lee, *World development*, vol 63, p 33 (pp 33-42), 2014.

Foster, B ( 2013): 'Marx and the Rift in the Universal Metabolism in Nature' *Analytical monthly Review*, Vol 11, No 9, December p4, (pp 1-19).

- Foster, B and Holleman, H (2014): 'The theory of unequal ecological exchange: a Marx –Odum dialectic' *The Journal of peasant Studies*, Vol 41, No2, (pp199-233).
- Ghosh, Jayati (2014): 'The Curious case of the Jobs that did not appear: Structural change, Employment and social patterns in India' *Indian Journal of Labor Economics*, vol37, No1. (pp 1-18).
- Giddens, A (1984): *The Constitution of Society, Outline of the theory of Structuration*, University of California Press, Barkeley and Los Angeles, p17.
- Granovetter, M (2005): "The Impact of social structure of Economic outcomes" *The Journal of Economic Perspectives*, Vol.19, No.1, pp33-50.
- Hairong, Y and Yiyuan (2013): 'Debating the rural co-operative movement in China, the past and the present' *The Journal of Peasant Studies*, Vol 40, No 6, November (pp 955-981).
- Hans P. Binswanger-Mkhize (2012): "India 1960-2010: Structural Change, the Rural Non-Farm Sector, and the prospect of Agriculture" *Stanford Symposium series on Global Food policy and food security in the 21<sup>st</sup> century*, Centre for Food security and the Environment, Stanford University, USA. P8 ( pp 1-31).
- Hardt, M and Negri, A (2001): *Empire* (Cambridge, M.A, Harvard University Press).
- Harriss-White, Barbara (2005): *India's market Society-Three Essays in Political economy*, Three Eassys Collective, Gurgaon, Haryana ( India) p 10 ( Pages 233).
- Hazell, Peter, C.Poutton, S., Wiggins and A.Dorward (2007): *The Future of Small farms for Poverty reduction and Growth* (Washington, DC. International Food Policy Research Institute. [ from Stuart Corbridge, John Harriss and Craig Jeffery ( 2014): *India, Economy Politics Society*, Oxford University Press, New Delhi, p 83]
- Herrendorf, B, Rogerson, R and Valentinyi, A (2013): "Two perspectives an preferences and structural transformation" *American Economic Review*, 103 (7), ( pp2752-2789).
- Institute of Human Development (2014): *India-Labor and Employment Report 2014- Workers in the Era of Globalization*, Academic Foundation, New Delhi. P 49.
- Jorge, Santiago S (2001): "A Solidarity –based Economy" *Development in Practice*, 11(5): 640-432 (from , Ray, Sunil ( 2012) : *Economics of Solidarity' Economics of the 21<sup>st</sup> Century'* *Economic and Political weekly*, Vol XLVII, No 24 (pp 39-48).
- Kauffman, S.A (1995): *At home in the universe: the search for the laws of self-organization and complexity* (Harmondsworth, Penguin) (From Morrison, K (2005) op. cit.

Kendal, J, Tehrani, J. J and Odling-Smee, J (2011), 'Human niche construction in interdisciplinary focus' *Philosophical Transactions of The Royal Society, B*, 366, (pp785-792) <http://rstb.royalsocietypublishing.org>

Kuokkanen, R (2011): 'Indigenous Economics, Theories of Subsistence, and Women: Exploring the social Economy model for Indigenous Governance' *The American Indian Quarterly*, Vol 35, No 2, Spring University of Nebraska Press, (pp215-38).

Kuznets, S (1966): *Modern Economic Growth*, Norh Haven: Yale University Press.

Lappi', F.M (2006): 'A Market without Capitalists', *Alternet*, June, [www.alternet.org/story/37920/a\\_market\\_without\\_capitalists](http://www.alternet.org/story/37920/a_market_without_capitalists).

Lewis, A, 1954, "Economic Development with unlimited supplies of Labor" *The Manchester School of Economics and Social Studies*, Vol. 22, Issue 2, (pp 139-191.)

Li, Tania (2010): 'To make live or let die? Rural Dispossession and the protection of surplus populations' *Antidope*, 41(1); 66-93 [From Stuart Corbridge, John harriss and Craig Jeffery (2014) *India, Economy Politics Society*, Oxford University Press, New Delhi, p 98]

Liu, L (2010): Hezuoshe shijian yu bentu pingjia biao zhun (social practice of rural co-operatives and local evaluation criterion) *kaifang shidai* [Open times], 12, pp53-67 [From Hairong, Y and Yiyuan (2013), op. cit]

Macmillan, M, Rodrik, D and Inigo (2014): 'Globalization, Structural change and productivity growth with an update on Africa' *World Development*, vol 63, p 27 (pp11-32.)

Madheswaran, S and Dharmadhikary, A (2000): "Income and Employment Growth in service sector in India" *The Indian Journal of Labor economics*, Vol. 43, No 4.

Marcuse, P (2015): 'Co-operatives on the path to Socialism?' *Analytical Monthly Review*, Vol12, No 11, February (pp 30-37)

Mazumdar, K, (1995): "Disproportional Growth of Service sector in India: 1960-70" *The Indian economic Journal*, Vol. 43, No 2.

McMillan and Heady. D, (2014): "Introduction –Understanding Structural transformation in Africa" *World development*, Vol. 63, (pp 1-10).

Mcmillan and Roderick, (2011): *Globalization, Structural change and Productivity growth*, Working paper, International Food policy Research Institute, USA.

Mehrotra, s, Parida, J Sinha, S and Gandhi, A (2014): 'Explaining Employment Trends in the Indian Economy: 1993-94 to 2011-12', *Economic and Political weekly*, August 9, vol XL1X, No 32 p 57 (pp49-57).

Mitra, A, (1988): "Disproportionality and the service sector: A Note" Social Scientist, Vol. 16, No 4.

Morrison, K, (2005): 'Structuration Theory, Habitus and Complexity Theory: Elective Affinities or Old Wine in New Bottles?' British journal of Sociology of Education, Vol 26, No 3, July (pp311-326)

Negri, A (1984): Marx Beyond Marx ; Lessons on the Grundrisse, New York: Autonomedia (From Bohm, S, Dinerstein, A. C and Spicer, A ( 2008): '(Im) possibilities of Autonomy -social Movements In and Beyond Capital, The state and development', Working paper No WP 08/13, School of Accounting, finance and management, University of Essex, November, ( pp 1-17).

Odum, H.T (1995): 'Self -organization and maximum empower, In: C.A.S .Hall, ed, Maximum power: The ideas and applications of H.T, Odum, Niwot, Colorado: University press of Colorado, pp 311-330 [From. Foster, J. M and Holleman, H ( 2014) ; 'The Theory of Unequal ecological exchange: a Marx-Odum dialectic' the Journal of Peasant studies, Vol 41, November 1-2, march (pp 199-233)]

Odum, H.T (1996): Environmental accounting: energy and environmental decision- making. New York: John Wiley and Sons [From. Foster, J. M and Holleman, H (2014); 'The Theory of Unequal ecological exchange: a Marx-Odum dialectic' the Journal of Peasant studies, Vol 41, November 1-2, March, (pp 199-233)]

Odum, H.T and Arding, J.E ( 1991): Principle of energy analysis for public policy In H.T Odum and J.E.Arding(eds) Energy analysis of Shrimp mariculture in Ecuador, 88-111, Narragansett, RI: Coastal Resources Center, University of Rhode Island ( From Foster, J. M and Holleman, H (2014) ; 'The Theory of Unequal ecological exchange: a Marx-Odum dialectic' the Journal of Peasant studies, Vol 41, November 1-2, march (pp 199-233).

Peet, R and Hartwick, E ( 2010): Theories of Development -Contentions, Argument, Alternatives, Rawat Publications 9 Indian edition, (pages 323), Jaipur, p 50.

Polanyi, Karl (1944): The Great Transformation-The Political and economic Origins of our Time ( pages 315) chapter 4, Boston, Beacon Press).

Pollin, R (2012): Back to Full Employment, Cambridge, MA.MIT press ( pages 208).

Ratner, C (2015): 'Neoliberal Co-operation of Leading Co-op Organizations, and a Socialist Counter -Politics of Co-operation' Analytical Monthly Review, Vol 12, No 11, February (pp 18-29).

Ray, S (1998): Vicious Circle of Impoverization: Wollen Khadi Institutions in Rajasthan' Economic and Political Weekly, Vol XXXIII, No 14, April 4. (pp 788-792).

Ray, Sunil (2008), Management of Natural Resources –Institutions for Sustainable Livelihood: the case of Rajasthan, Academic Foundation, New Delhi. (pp 420).

Ray, Sunil ( 2015): ' Promoting Livelihood Security for the Poor in the Fragile Drylands of Rural Rajasthan'( pp 52-70) in The Environments of the Poor in South Asia (ed), Sinha, Anushree, Bauer, Armin and Bullen, Paul, Oxford University Press, New Delhi (pages 336).

Ray, Sunil (2010): “ Economic Growth and Social Cost: Need for Institutional reforms” Economic and Political Weekly, April 3, Vol XIV, No 4 (pp 17-20).

Ray, Sunil (2012): 'Economics of Solidarity': Economics of the 21<sup>st</sup> century' Economic and Political weekly, June 16, Vol XLVII, No 24.( pp 39-48).

Restakis, J (2000): 'The Emilian Model-Profile of a Co-operative Economy' Canadian Co-operative Association-BC Region ( Now BCCA), [www.bcca.coop/sites/bcca.coop/files/u2/ER-profileofcoop.pdf](http://www.bcca.coop/sites/bcca.coop/files/u2/ER-profileofcoop.pdf) Sache, Wolfgang (1989): The Archaeology of the Development Idea, Intercultural Institute of Montreal (38 pages) [www.burmalibrary.org/docs14/The\\_Archaeology\\_of\\_the\\_Development\\_Ideas.pdf](http://www.burmalibrary.org/docs14/The_Archaeology_of_the_Development_Ideas.pdf)

Sanyal, K and Bhattacharaya, R (2009): 'Beyond the factory: Globalization, informalization and production and the new location of labour' Economic and Political weekly, 44(220: 35-44 [From Stuart Corbridge, John harriss and Craig Jeffery ( 2014) India, Economy Politics Society, Oxford University Press, New Delhi, p 38]

Sassen, S (1994): Cities in a World Economy, Pine Forge Press, Thousands Oaks,CA,USA (from Basile. E and Cecchi, C (1997), op, cit).

Saviotti, Pier Paolo (1996): Technological evolution, Variety and the Economy (Aldershot: Edward Elgar) in Hodgson, G.M Evolutionary Economics in Encyclopedia of Life Support Systems (EOLSS) <http://www.eolss.net/Eolss-sampleAllChapter.aspx>.

Sharma, P, Taneja, S, Rawat, P and Chakravarty, S (2014): Krishi Sutra 2-Success stories of Farmer Producer Organizations, Small Farmer's Agribusiness Consortium ( SFAC) New Delhi, [www.sfacindia.com](http://www.sfacindia.com)

Smith, B.D (2009): 'Resource Resilience, Human Niche Construction, and the Long -Term Sustainability of Pre-Columbian Subsistence Economics in the Mississippi River Valley Corridor' Journal of Ethnobiology, published by society of Ethnobiology, 29 (2) (pp:167-183) <http://www.bioone.org>

Sweta (2014): “Green Speak with Gorus-An Organic Farmers' collective” in Know your Environment <https://gokp.wordpress.com/2014/09/01/green-speak-with-gorus-an-organic-farmers-collective/>

Szirmai, A (2012): "Industrialization as an engine of Growth in developing countries, 1950-2005", *Structural Change and Economic Dynamics*, 23(4), 406-420 (from Christiansen, LUC and Toda, Yasuyuki, Todo, 2014, "Poverty Reduction through rural-urban transformation-The role of the missing middle" *World Development*, Vol 63,(pp43-58).

Temple, J.R.W. (2005): "Dual Economy Models: a primer for growth Economists, *The Manchester School*, 73(4), 435-478 (From Macmillan, M and Heady, D, 2014 "Introduction -Understanding Structural transformation in Africa" *World development*, Vol. 63(pp 1-10).

Tronti, M (1979): 'The Strategy of the Refusal' in *R.Notes, Working Class Autonomy and the Crisis; Italian Marxists texts of the Theory and Practice of a Class Movement 1964-1979* ( pp7-22) London, Red Notes. (From Oli Harrison 'Self-Valorization and the exploration of the Common', WP 012, Centre For the Study of Social and Global Justice. (Year not mentioned)

Ungor, Murat (2011): "Productivity growth and labour reallocation: Latin America Vs. East Asia" Manuscript, Central Bank of Turkey, Istanbul (From Herrendorf, B, Rogerson, R and Valentinyi, Akos, 2013, "Growth and Structural Transformation "Working Paper 18996, National Bureau of Economic Research, Cambridge, <http://www.nber.org/papers/w18996>.

Usher, P (1982): 'The North: One Land, Two ways of Life' in *Heartland and Hinterland: A Geography of Canada*, ed. L.D. McCann (scarborough, ON: Prentice Hall, p291) from Kuokkanen, R (2011) op.cit.

Vaidyanathan, A (2013): 'Future of Co-operatives in India' *Economic and Political weekly*, Vol .XLVII, No 18, May 4 ( pp 30-34).

Verma, Rubina (2012) : "Can Total Factor Productivity explain value added growth in services" *Journal of Development Economics*, 99, (pp 166-177).

Vijay, R, (2012): "Structural Retrogression and Rise of new landlords in Indian Agriculture: An Empirical exercise" *Economic and Political Weekly*, February 4, Vol.IX LVII, P 38.

World Development Report, (2011): (From "Emerging Structure of Rajasthan Economy in India", Singh Inderjeet and Lila, Anshu, 2012, MPRA paper No 43522, online at <http://mpra.ub.uni-muenchen.de/43522>) [www.no/a/english/publikasjoner/pdf/sa112-en/kap6.pdf](http://www.no/a/english/publikasjoner/pdf/sa112-en/kap6.pdf)

World Bank (2008): world development Report; agriculture for development (Washington D.C. from Stuart Corbridge, John harriss and Craig Jeffery ( 2014) *India, Economy Politics Society*, Oxford University Press, New Delhi, p 98].



Yang, S and T. wen (2011): Nongmin Zuzhijia de kunjing yu pojie ( The predicament of and solution to farmers' organization ] Renmin luntan (Peoples' Forum) 29, 44-5 [From Yan hairong and Chen Yiyuan (2013) : 'Debating the rural co-operative movement in China, the past and the present', The Journal of Peasant Studies, Vol 40, No 6, ( pp 955-981).

Zang, D (2011): 'Pibao hezuoshe' zheshe chu lai de guanmin guanxi [The government- people relationship reflected by 'brief-case co-operatives] . Renmin luntan [Peoples' tribune], 25, 58-9 [from Hairong, Y and Yiyuan, 2013).

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