Dualistic development and economic benefits: Experience from Community Forestry in Nepal

Anuja Raj Sharma[1] and Resham Bahadur Dangi[2]

Abstract

This paper attempts to generalize the theoretical construct of dualistic development and stylized typology model in community forestry in Nepal. This paper draws inferences from critical review of few forest based enterprises implemented under different hypothetical projects/program to reinforce the logical interpretation of potential spillover effect of dualistic development on economic development at community level in general and in particular to income distribution at household level. It further examines the strength, weakness and threat associated with the particular enterprising and institutional practices adopted by local community for economic development and prosperity. Using Gary Fields' stylized development typologies, this paper dwells on the applicability of this framework to scale up the best community based forestry practices in Nepal.

It also examines the possible impact of community based forestry practices on income distribution on dualistic development, without spearheading a specific approach, this paper intends to garner a policy discourse on the stylized and dualistic development approach.

The paper proposes way forward options for further discussion to stimulate policy dialogue to revisit the role of community forestry in socio-economic development of local community in general and in particular to targeted communities. Paper concludes with key message that this discussion is very timely and critical in the context of upcoming sixth National Community Forestry Workshop to lay out the corner stone of long-term vision for Community Forestry in Nepal.

Background

Nepal's forest resource constitutes nearly 39.6 percent of the total land area. The area of the forest is about 4.3 million hectares while shrubland measures 1.6 million hectares. Except private ones, the government owns all types of the forest. Nearly one-third forests are being managed by local institutions under participatory forest management regimes. The remaining area is being managed under Protected Area management system and government managed forests. The protected area management system accounts more than 23 percent of total land mass and almost 18 percent of the forested area. The forest resource continues to decline at an alarming rate of 1.3 percent annually which is even higher in the case of the Hills and the Mountain. The rapid decline in forest resource in spite of a

[1] Community Forestry Development Officer, Department of Forests, Nepal (email: anuj128@gmail.com)
[2] Deputy Director General, Community Forestry Division, Department of Forests, Nepal (email: reshamdangi@gmail.com)

widely appreciated participatory forestry programme (community forestry) puts forestry sector in the spot light of development discourse.
Deforestation and forest degradation have been a persistent problem in Nepal. The annual rate of deforestation in the Hills between 1978/79 and 1994 stood at 2.3 percent per annum while deforestation in the Terai for the comparable period remained 1.3 percent (DFRS, 1999). The Terai region (plain areas of Nepal constituting about 20% of the total area of the country) experienced a sharp reduction in deforestation in the late 1990s (DoF, 2005).

Community Forestry in Nepal: Almost one third of the forest areas (1.71 million hectares) throughout the country has been handed over to the local communities as community forests for ensuring communities primarily to fulfill their basic needs of forestry products, besides their active participation on conserving biodiversity, and instigating social development at local level. Morethan 18,000 Community Forest User Groups (FUGs) are managing forests throughout the country and are implementing different programmes related to forest conservation and livelihoods improvement. With wide spread community forestry, there is dilemma regarding further development of community forestry: Should the future course be "traditional sector enrichment" or "modern sector enlargement" ? With this backdrop, we resort to give introduction of the paper to our reader.

Introduction

This paper analyses how community forestry can affect income distribution in a dualistic economy when aid to one sector induces effect on the other. It further discusses how development fund should be channeled in community forestry keeping in mind the dualistic development. The economies is comprised of a modern sector mainly concentrated in urban areas and have export focus while traditional is predominated by agriculture sector often termed as backward sector. Suppose a development fund originating from the national treasure or from foreign aid mainly stemming from development partners, is made available for use in either of two ways in community forestry: (1) to expand production and employment in the economy's modern sector (a process termed "modern sector enlargement" for hypothetical example: AUSAID assistance to establish a pole treatment plant at Panchkhal with export focus or (2) to enhance productivity in the domestic sector (a process termed "traditional sector enrichment" for example say DFID support to improve agriculture through the use of compost making utilizing leaf litters collected from community forest).

This paper dwells on the possible effect on income distribution on dualistic development and without spearheading a specific approach, intends to garner a

policy discourse on the stylized and dualistic development approach in community forestry.
Nepal's Finance Minister in his budget speech of Fiscal year 2013-14 has vowed to transform Nepal into a developing country by the year 2022, that demands a renewed dialogue on future pathway of community forestry (GovN, 2013).

Methodology

This paper is mainly based on the field experience of the authors, who worked in different districts of Nepal in the initial development stages of community forestry. The two examples, namely pole treatment plant and compost making using the leaf-litters are two case studies that represent modern sector enlargement and traditional sector enrichment respectively. The paper is mainly based on the stylized typology used by Gary Field and is based on the theoretical framework, mainly to assess impact of dualistic development on income distribution.

Discussion

As already mentioned, in this short paper, we are using Gary Fields' stylized development typologies (Todaro and Smith, 2004) to explain shifting of Lorenz curves and consequent impact on income distribution:

1. The modern-sector enlargement typology in which two-sector economy develops by enlarging the size of modern sector. While maintaining constant wages in both sectors as depicted by the Lewis model, we attempt to assess effect on income distribution. Example is enterprises development or rapid industrialization due to forward and backward linkages of community forestry development in Nepal. One real example of modern sector enlargement in community forestry is given in box-1.

2. The modern-sector enrichment growth typology, in which the economy grows but such growth is limited to a fixed number of households in modern sector, with both the numbers of farmers and their incomes held constant in the traditional sector. Example is development of industries like saw-mill due to forward linkages of community forestry.

3. Traditional sector enrichment growth typology, in which all the benefits of growth are divided among traditional sector households, with little or no growth occurring in the modern sector. This process roughly describes the increased production of cereal crops and livestock due to increased availability

Box-1: ChaubasBhulmu Saw Mill

Chaubas-Bhulmu community saw mill, which was established with Australian assistance in 1996. The sawmill figured as an exemplary forest management in the book "In search of excellence" published by FAO. However, in less than a decade the mill became dysfunctional. Nevertheless, the mill provided a total employment of 13,308 person days and US$ 15,243 in wages from 1997 to 2004 (Timsina, 2005) .

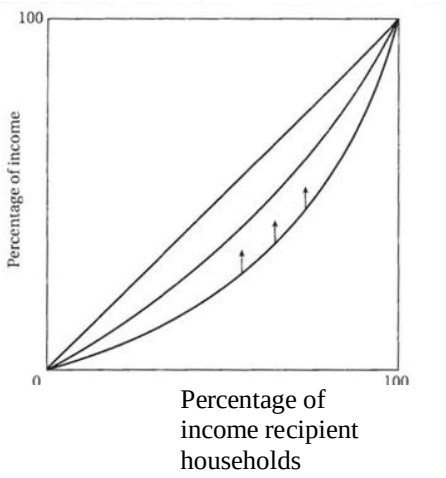
of farm-inputs (leaf-litters, fodder etc) from the community forests. It helps in policies focused on achieving substantial reductions in absolute poverty even at very low incomes and with relatively low growth rates.

Reflections

In the following section we are trying to use three stylized cases and Lorenz curves to demonstrate the validity of the following propositions. We have just reversed the order presented above.

1. In the traditional-sector enrichment typology, growth in the traditional sector results in higher income of farming households. It leads to a more equal relative distribution of income, and that culminates into reduced poverty. Thus, the traditional-sector enrichment growth ultimately causes Lorenz curve to shift uniformly towards the line of equality. This shift closer toward the line of equality, as portrayed in figure 1 explains reduced poverty with traditional sector enrichment.

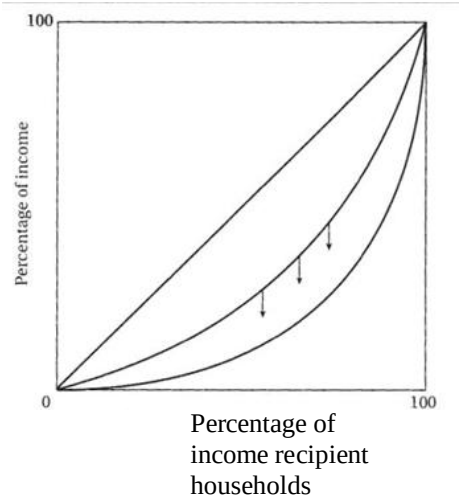
Figure-1: Traditional-sector enrichment and consequent poverty reduction



(Modified from Todaro and Smith, 2004)

2. In the modern-sector enrichment growth typology, growth results in higher incomes of households in urban areas. However, it leads to a less equal relative distribution of income among the urban and rural sector. It will produce no change in poverty. Modern-sector enrichment growth causes the Lorenz curve to shift downward and farther from the line of equality as shown in figure-2. This aggravates inequality with households in lower scale of income having reduced share of income will either have no effect or aggravate poverty.

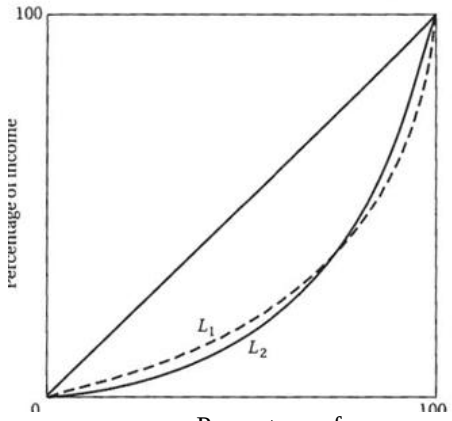
Figure-2: Modern-sector enrichment with no change in poverty or even aggravated poverty



(Modified from Todaro and Smith, 2004)

3. Finally in the case of modern-sector enlargement growth propelled by Lewis, absolute income of the urban household rises sharply and absolute poverty in urban locality is reduced. However, the Lorenz curve will always cross at somewhere in the midway so that we cannot make unambiguous statement about the changes in relative inequality among the households. The inequality in income distribution may improve or worsen in the long run. According to Fields, if this style of growth experience is predominant, inequality is likely first to worsen in the early stages of development and then to improve in later stages which is more similar to Kuznets' inverted U hypothesis. The crossings of the Lorenz curve as suggested by Fields is demonstrated in figure 3.

Figure-3: Modern-sector enlargement with initial aggravation and subsequent reduction of poverty



(Modified from Todaro and Smith, 2004)

We can give the explanation for the crossing of the Lorenz curves in figure 3 as follows:

The poor households who remain in the traditional sector have their incomes unchanged. Mainly because there are no investments of development fund in this sector. Hence, these incomes now represent a smaller fraction of the larger total income accrued due to modern sector enlargement. So the new Lorenz curve, L2 , lies below the old Lorenz curve, L1, at the lower end of income distribution scale. Each modern-sector household receives the same absolute income as before, but now the share received by the richest income group is smaller than before. It explains why the new Lorenz curve lies above the old one at the higher end of income distribution scale. Hence, it can be safely interpreted that somewhere in the middle of the distribution, the old and new Lorenz curves must cross each other

Conclusion

These three typologies offer different predictions about what will happen to inequality in the course of economic growth in community forestry. With modern-sector enrichment, inequality would rise steadily, while under traditional-sector enrichment, inequality would fall steadily and under such circumstances allocating the development fund for purposes of traditional sector enrichment might be a better option. In contrast, under modern-sector enlargement inequality would first rise and then fall. If this admittedly highly stylized process of development were occurring, we would not be concerned about the temporary rise in inequality for

two reasons. Firstly, in addition to being temporary, it would be reflecting a process rather than the phenomenon itself. Secondly, increased resources availed due to community forestry will result in a situation in which the member households of forest user group are, one by one, achieving incomes above the poverty line.

These observations tell us that we have to qualify our conclusion that inequality is bad in general sense. In particular, in some cases inequality may increase on temporary basis as we have observed in case of modern-sector enlargement growth. It is due to the causes that will eventually make everyone better off and ultimately lower inequality in long run. On the other hand, with modern-sector enrichment growth, the increase in inequality is not later reversed, and the poorest households of the forest user group do not escape their poverty. As a result, we need to be careful about drawing conclusion from short-run changes in economic statistics of community forestry before we get insights about the underlying changes in the real economy that gave rise to these statistics. The process of modern-sector enlargement growth suggests a possible mechanism that could give rise to Kuznets' "inverted-U" hypothesis which has been established in the course of development however the hypothesis itself is disputable.

Way forward: *Dubidha* (Dilemma)

Different theoretical perspectives on dualistic development suggest different ways of allocating such a development fund. Those who follow Lewis, Fei and Ranis, Jorgenson and others might tend to regard modern sector as the leading sector and the trade as the engine of growth. If this path is followed establishing a sawmill or pole treatment plant at Panchkhal can be a good option to be pursued in community forestry. The underlying assumption is that the best use of additional development resources is to stimulate the modern sector, thereby achieving export-led growth. While the others believing traditional sector enrichment would tend to argue just opposite. If we follow Schultz and Adelman, we are inclined to believe that traditional sector (agriculture) has been deprived of resources and availability of community forests will complement the resources need of this sector. An influx of development fund in traditional sector would have a higher marginal product than in the modern sector besides reducing risk of higher unemployment (search unemployment) in the latter sector due to crowding effect. It ultimately leads to aggravating unemployment in urban areas while simultaneously lowering output in rural areas.

Those who favor Panchkhal pole treatment plant and advocate development resources to the modern sector tend to presume that economic growth is best achieved by shifting the locus of economic activity towards modern sector

activities. The crux of development of modern sector lies on a number of assumptions: the marginal product of additional resources allocated to the modern sector is high; the labor required for production expansion is available; the additional products have market; and merely little output is foregone and finally job opportunities will attract job seekers that aggravate unemployment.

At the other end of the spectrum, the proponents of DFID's compost making training to the farmers to enhance agriculture, presume that economic growth is best achieved by targeting economic activity in traditional sector - which is starving for additional resources. The cruxes of argument; marginal product of additional resources allocated to the traditional sector is high; plenty of labor available (underemployment); increased agri-products have multiplier effect on the local economy; market is ensured and investment in agriculture ensures holistic development of the economy.

The preferred allocation of development resources between sectors visibly depend on the amount of modern sector enlargement and traditional sector enrichment that could be achieved under alternative resources allocations and structure of labor market. One of the practical significances of initiating such a discussion is as follows: Using additional development resources to expand modern sector exports and employment is most efficient when marginal product of the capital in modern sector is high and trend of migration low. At the other paradigm when the marginal product of capital is higher in the traditional sector compared to modern sector and wide spread unemployment/underemployment, under such circumstances allocating development fund for enrichment of the traditional sector might be a better option.

On the eve of sixth national community forestry workshop, a policy discourse is much needed for the destination of community forestry: traditional sector enrichment or modern sector enlargement? It requires discourse and perhaps only the stakeholders of community forestry will be able to direct - an answer at this point is perhaps beyond the scope of this paper.

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