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AGRICULTURAL PRODUCTIVITY, A EVIDENCE OF INTER-LINKAGES FROM KARNATAKA STATE

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ABSTRACT:

The between linkages among horticultural efficiency, country destitution and dietary security have been dissected dependent on an investigation of Bagalkot locale of Karnataka state utilizing essential information for the rural year 2005-06 got from 120 homestead families. The information have been prepared utilizing proportions, frequencies, rates, relapse examination and probit model. Horticultural efficiency has adversely and essentially impacted country neediness at the ranch level. Low horticultural efficiency is the underlying driver of rustic destitution. Family size and number of wards in that have decidedly impacted country destitution. Streamlining of family size or expansion in the quantity of procuring individuals from the family would diminish destitution. Dietary security is incredibly affected by the degree of provincial destitution. To redesign the nourishing status of families, the review has proposed that compelling destitution lightening programs pointed toward upgrading rural efficiency through move of useful resources rather than shopper merchandise to poor people, ought to be dispatched and successfully observed. Agrarian credit being a significant part of usefulness, fitting advances ought to be taken to expand the entrance of rustic families to monetary establishments. The focal point of World Development Report on foundation during 2002 was a significant stage towards highlighting its essential need during the time spent monetary development in agricultural nations. On numerous occasions it has been underlined that foundation is the best channel of improvement. In any case, the truth of the matter is obliviated because of other mounting pressures during the time spent turn of events. This happens primarily because of the inborn and backhanded job that framework plays all the while.

KEYWORDS: Agricultural; and; Food; Policy.

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INTRODUCTION :

India accounts for one-sixth of the global population and it is growing so fast that, probably, she will soon become the most populous nation in the world. The pressure on land is increasing day-by-day, while agricultural productivity is not keeping pace with the population growth. The level of agricultural productivity has serious implications on rural poverty in India and poverty, in turn, has a bearing on food and nutritional security of the people. Presently, 72 per cent of India's population and 75 per cent of the country's poor live in rural areas. The poor in the country remain disproportionately rural, with most employed or selfemployed in agriculture. Nearly two-thirds of the Indian population still depends on agriculture for its livelihood.

Growth in agricultural productivity is certainly driven by investment in agricultural research via technology development on one hand and development of infrastructure, particularly irrigation, on the other. Though there has been a substantial increase in agricultural productivity over the past two decades, the incremental growth has been declining. The compound annual growth rates of productivity of all the crop groups have declined drastically between the period 1980-90 and 1990-2000 (FAI, 2002). This has had a serious impact on the poverty level in the country, owing to the fact that agriculture has been the main occupation of the rural population in the country.

Definition of Infrastructure Infrastructure refers to services drawn from the set of public works that traditionally has been supported by the public sector, though in many cases, the infrastructure services may be produced in the private sector. Water supply, sanitation, transportation, electricity, telecommunications, irrigation dams, regulated markets and banks are some of the examples of infrastructure that generate services. The agricultural infrastructure includes all of the basic services, facilities, equipment, and institutions needed for the economic growth and efficient functioning of the food and fiber markets. Infrastructure investment demands a strong commitment to the research and cooperative extension system that enhances production, marketing, food safety, nutrition, natural resource conservation, and all other functions of different agencies concerned with agricultural infrastructure.

As far as nature of infrastructure is concerned, there are different kinds of infrastructure such as economic infrastructure, social infrastructure, financial infrastructure, technological infrastructure, agricultural infrastructure, etc defined in broader terms. All kinds of infrastructures are complementary to each other and are essential and integral part of economic development. It should be noted that the benefits derived from all these kinds of infrastructure collectively are greater than that of the combination of benefits from each type of individual infrastructure. In other words, the net benefit of providing different kinds of essential infrastructure together tend to generate more amount of net benefits than that of providing a single infrastructural facility. The policy implication of this statement is that the regional or sectoral development and the phase at which the economy grows depends mainly on the level of infrastructure, both vertically as well as horizontally.

Importance of Infrastructure One of the central questions in the economic growth paradigm is how different factors of production contribute to aggregate output. This

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contribution is made by income earned by the factors of production, which in a perfectly competitive economy, will equal their marginal value products in the absence of externalities. This has important policy implications in terms of appropriate level of investment in different sectors, since the market will tend to provide capital in response to price signals, which reflect private benefits and ignore ìexternalitiesî. If there are large externalities, there is a need for government intervention to achieve more efficient allocation of resources, though government intervention itself has its own costs. The fact that infrastructure services are often provided by the public sector means they are often not priced at all, or are rationed, and we have difficulty even in estimating the private productivity of infrastructure capital.

During the past three decades, poverty ratio was showing a declining trend because of the economic development brought about by significant development in various sectors of the economy. During 1977-78, the poverty ratio was 51.3 per cent which decreased to 26.1 per cent during 1999-2000 (GOI, 2002). The projected poverty ratio for 2007 is 19.3 per cent (21.1 per cent for rural and 15.1 per cent for urban areas). Even as of now, as many as 220 million people were below the poverty line. The poverty line for the country as a whole in terms of monthly income was Rs 358.03 for rural population as against Rs 540.40 for urban population. Poverty has serious effects on food and nutritional security as it contributes to low agricultural productivity via poor access to productivity-enhancing agricultural inputs. Low agricultural research investment is also a serious threat to food security via agricultural productivity and hence poverty. There is no doubt that agricultural research investment contributes to the increase in agricultural productivity and hence reduction in poverty. This, in turn, has far reaching implication on food and nutritional security. However, the intricacies of inter-linkages among agricultural productivity, rural poverty and nutritional security are much less known. In this context, the present study attempts to analyse these inter-linkages amongst agricultural productivity, rural poverty and nutritional security in India using micro level case study undertaken in Bagalkot district of Karnataka State.

METHODOLOGY THE STUDY AREA

The Karnataka State, which is one of the conditions of peninsular India, is honored with an assortment of agro-eco areas empowering development of an assortment of yields. Be that as it may, as for the nation overall, a significant piece of developed land in the state falls under dry cultivating zone. The destitution line for the state remains at Rs 324.17 and Rs 603.50 each month for rustic and metropolitan populaces, individually (GOI, 2008). families. In the principal stage, Bagalkot region was purposively chosen on the grounds that the extent of Below Poverty Line (BPL) families to the absolute families in the locale was 26.24, which was nearer to the normal of Karnataka state (23.93). In the subsequent stage, out of six talukas in the Bagalkot locale, two talukas — one horticulturally forward or reformist region (PA) and the other agronomically in reverse or the less reformist region (LPA) — were purposively chosen (Table 1). From each of the chose talukas, ten towns were chosen indiscriminately in the third stage. Ultimately, from each example town, six families were haphazardly picked. Taking all things

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together, the example comprised of 120 families spread across 20 towns in two talukas of Bagalkot region in the Karnataka state.

STATUS OF POVERTY IN STUDY AREA

The situation with neediness in the review region was contemplated as far as underneath destitution line (BPL) families, per capita yearly pay and number of various kinds of proportion card holders. The important data has been given in Table 2. It was tracked down that the quantity of BPL families was essentially higher (just multiple times) in LPA than in PA. The destitution proportion was pretty much as high as 48% in the LPA as against just 5% in the PA. The conveyance of apportion cards showed that the respondents had three sorts of proportion cards, viz., Green, Yellow and Ashwini. The absolute number of apportion card holders was practically same in both PA (51) and LPA (52). The quantity of BPL families in PA was 3 yet the number families having green apportion cards in that space was 11. This could be likely due to under-announcing of pay by a portion of the respondents as well as because of ownership of 2-3 cards for every family on account of joint families.

LINKAGES BETWEEN FARM LEVEL SOCIO-ECONOMIC FACTORS AND POVERTY

Bhattacharya (2002) has seen that provincial destitution in India has different measurements emerging out of financial just as friendly factors. The linkages between ranch level financial variables and neediness in the review region could be generally examined by having a two-way table, with four destitution classes (viz. BPL, Poor, Middle pay and Rich) on one side and twelve diverse financial factors on the opposite side under PA, LPA and the whole region independently. These twelve financial factors could be assembled into three classes: first, those have positive impact on neediness; second, those have negative impact subsequently, and third, those have no impact. nd third, those have no impact. The financial factors which decidedly affected neediness were four, in particular, family size, number of wards in a family, number of females in a family and education level (Table 4). All in all, as the worth of these factors expanded, exclusively or on the whole, the destitution diminished. As the family size expanded, the pay per capita diminished, accordingly prompting expansion in destitution. Comparable was the impact of number of wards in a family. Further, expansion in the quantity of females in the family, allegedly decreased the per capita pay. Strangely, education level had positive relationship with destitution, that is, higher the proficiency, higher was the neediness. This is a circumstance likened to "an excessive number of cooks ruin the stock". As the quantity of literates in a family expanded, likely, the dynamic became troublesome because of absence of unanimity.

The seven financial factors, specifically, size of holding, net region watered, gross edited region, trimming power, yearly pay of the family, sum acquired per homestead and distance to advertise, contrarily affected destitution. All in all, as the worth of any of these factors expanded, the neediness diminished or the family moved from BPL-class towards rich-classification. The factors, viz. size of holding, net inundated region, gross edited region and trimming power had an immediate bearing on the homestead pay and subsequently, by

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implication on neediness. Restricted enrichments of poor people, explicitly, land and schooling and their inability to benefit satisfactorily from them will in general propagate their neediness (Gaihar, 1998). Clearly, as the yearly pay of the family expanded, neediness diminished. The distance of the family to the market contrarily affected destitution.

LINKAGES BETWEEN SOCIO-ECONOMIC FACTORS AND AGRICULTURAL PRODUCTIVITY

The six financial factors which recognizably emphatically affected usefulness were: net region inundated, gross trimmed region, editing power, yearly pay of family, acquired sum per ranch and distance to advertise. These have been introduced under four efficiency classifications (Very low, Low, Medium and High) in Table 5. Two factors, viz. age and education level of respondents were found to have negative impact on usefulness. No unmistakable affiliation was found among efficiency and size of holding, family size, number of wards in a family and number of females in a family.

OVERALL CROP PRODUCTIVITY IN MONETARY TERMS

The general yield efficiency in money related terms was most elevated on account of rich-classification of respondents (Rs 43,946), trailed by medium (Rs 34,344), poor (Rs 9,232) and BPL (Rs 7,063) classes (Table 6). At the end of the day, rural efficiency and neediness were adversely related at ranch level. Since ranch pay is a huge part of the family pay, any expansion in the rural usefulness would expand the family pay and subsequently decrease the neediness level. Datt and Ravallion (1998) have additionally tracked down that higher homestead efficiency carried both outright and relative increases to poor provincial families

CROP PRODUCTIVITY IN PHYSICAL TERMS

It was seen that as efficiency of oats expanded from 6.93 q/ha to 16.10 q/ha, the families moved from BPL to rich classes of neediness. The connection between heartbeats' efficiency and neediness was negative among BPL and center classifications and not past. Again on account of oilseeds, as usefulness of oilseeds expanded, destitution diminished. The usefulness of oilseeds fluctuated from 5.49 q/ha in BPL classification to 8.27 q/ha in rich class. As the sugarcane usefulness expanded from 1000 q/ha to 1272 q/ha, the family moved from helpless class to rich classification. The negative relationship between rural efficiency and neediness was seen between BPL to center classes and not past

PROBIT FUNCTION ESTIMATES FOR NUTRITIONAL SECURITY

To appraise the adjustment of likelihood that the respondent would be healthfully secure, the probit model was run on the dichotomous ward variable, NUTSEC, with the illustrative factors as utilized in the above relapse model. Three of the eight illustrative factors remembered for the probit model, to be specific, AIPCU, LITNUM and CUIF essentially affected the likelihood that the respondent was healthfully secure (Table 9); AIPCU and LITNUM impacted emphatically and CUIF, contrarily. Taking everything into account, a unit expansion in the AIPCU would expand the likelihood of a respondent turning out to be healthfully secure by

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29.2 percent, while a unit expansion in LITNUM would build the comparing likelihood by 32.7 percent. Contrastingly, a unit expansion in CUIF would decrease the likelihood of a respondent turning out to be healthfully secure by 83.9 percent.

Framework Increases Agricultural Production and Productivity It ought to be noticed that the foundation in the agrarian area upgrades the ëcomparative advantagesí of that district wherein the infrastructural speculation is made. At the point when the locale acquires relative benefit in the agrarian exercises, the net outcome is expansion in the creation and usefulness of different farming labor and products overall. The expanded degree of creation and efficiency brings about a change in the inventory bend upwards, which has its positive ramifications on the value factor contingent upon the idea of the flexibility of interest for the product viable.

INFRASTRUCTURE AND THE SOCIAL BENEFITS

To appraise the adjustment of likelihood that the respondent would be healthfully secure, the probit model was run on the dichotomous ward variable, NUTSEC, with the illustrative factors as utilized in the above relapse model. Three of the eight illustrative factors remembered for the probit model, to be specific, AIPCU, LITNUM and CUIF essentially affected the likelihood that the respondent was healthfully secure (Table 9); AIPCU and LITNUM impacted emphatically and CUIF, contrarily. Taking everything into account, a unit expansion in the AIPCU would expand the likelihood of a respondent turning out to be healthfully secure by 29.2 percent, while a unit expansion in LITNUM would build the comparing likelihood by 32.7 percent. Contrastingly, a unit expansion in CUIF would decrease the likelihood of a respondent turning out to be healthfully secure by 83.9 percent.

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CONCLUSIONS AND POLICY IMPLICATIONS

The review has uncovered that country neediness is fundamentally and contrarily impacted by the farming efficiency at the miniature level. Low farming efficiency is the main driver of rustic neediness. Further, neediness is the underlying driver of under-sustenance. Higher the neediness, bring down the dietary security as well as the other way around. Subsequently, to redesign the wholesome status of the respondents in the area, powerful destitution easing projects ought to be dispatched and checked by the public authority as well as NGOs. To diminish destitution, preparing on incomegenerating exercises ought to be coordinated. The R&D establishments/NGOs ought to teach the families about the advantages of differentiated cultivating, and the public authority and monetary foundations might uphold this reason through creating appropriate framework. Horticultural credit being a significant part

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of efficiency, fitting advances ought to be taken to expand access of country families to monetary establishments. The homestead credit might be changed and its powerful usage be checked. The greater part of the respondents have been observed to be healthfully uncertain in the review region. Further, an enormous piece of the populace in BPL class has been noted "somewhat unreliable" as against "tolerably uncertain" in other destitution classifications. It calls for guaranteed strategy detailing targeting accomplishing healthful security and ought to have various techniques for various destitution classifications.

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