



Why Agricultural Workers Income Cannot be Doubled: A Review

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ABSTRACT

Agriculture faces two-fold predispositions, both from the i. production front and ii. post-production. There are never-ending production challenges to farmers' income and these challenges are divided into three sub categories as land, labor and capital. The two Agro-Climatic Zones (EDZ) of Karnataka have been selected through a multi stage purposive sampling to select the households. A household survey was conducted in eight revenue villages in the year 2018-2019. A total of 306 households have been surveyed to document the qualitative and quantitative parameters on how to either double or to stabilise the farmers income in Indian agricultural systems.

Key words: Capital, Income, Labour, Land.

When every field is so well developed, why agriculture is underdeveloped in India. Designed with crooked and uncaring intention; it is poorly evolved and considered. Economic theory content land, labor and capital as the only factors of agricultural production. Scientific committee reports by different working groups of the government of India fail to notice the state of the land, labor and capital for production in agriculture. Limited land, surplus labor and little capital have equally caused ills in agriculture. Socioeconomic and political circumstances in India, had made farm production factors and their deprived state nearly unresolvable. Under such circumstances, it is not possible either to double or to stabilize the farmers' income.

Review of literature

Doubling Farmers' Income (DFI, 2015-16) committee, highly rate agriculture as a "value-led enterprise" and advocates empowering farmers with "improved market linkages" and enabling "self-sustainable models" as the basis for continued income advancement. DFI committee focuses on farmers' income as the fundamental contemplating emphasis. Doubling the income of farmers might not be possible, because of the ensuing internal and external dimensions provided in the paper which are causing ills in agriculture.

Statistics on agricultural workers' households at the macro level postulate larger concern. According to Agricultural Census (2010-11), 67.10 per cent is marginal operational holdings of an average size 1.15 hectares and it account to 48.16 per cent of total irrigated area. The population of cultivators is 118.8 million and that of agricultural laborers is 144.3 million (Census, 2011) together producing a GDP of less than 13.4 per cent. A large segment of the population is engaged in cultivating a marginal piece of land. India is therefore a country of marginal holdings. Inferring to high pressure of populace on a marginal piece of land, where agricultural workers per piece of land far exceeds the required number, thus making them superfluous (Dr. Ambedkar's Writings and Speeches, Volume 1).

The average monthly income of a farmer is 6,247 rupees in India and the agricultural growth has remained some

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where between 2.8-3.4 per cent (Economic Survey, 2017). According to the report on DFI, in 2015-16, the average yearly earnings at current prices of small and marginal farmers is 80,000, rupees, medium and the semi-medium farmer is 2,01,000 rupees and that of a large farmer (>10 ha) is 6,05,000 rupees from agricultural activities. To double their real income, the farm income has to grow at 10.4 per cent (as opposed to 4.1 per cent at present) at constant base-year prices to achieve the target of doubling the farmers' income by 2022-23. Whereas the growth rate of crop productivity is 3.1 per cent and the required growth rate is 4.1 per cent to double the productivity of the crop. The crop diversification growth rate is 4.1 per cent and the required growth rate is 5.7 percent. Allocation in the union budget for the agriculture sector is the same or marginally raised even after the announcement of the DFI scheme. The price support has remained contentious, wage rates of agricultural laborers are low (Dhandhalya et al., 2020).

The conventional economic indicators of agriculture are unable to reveal the socioeconomic reality of agricultural workers' households. Indian Farming sectors' GDP composition in 2020-21 is 15.4 per cent (Economic Survey, 2020-21), with the production of agriculture activity worth \$375.61 billion. India is 2nd larger producer of agricultural products. However, the export of agricultural commodities shows a volatile trend of deficit and surplus in new liberalised trade policies (Chand et al., 2001). India accounts for 7.39 per cent of total global agricultural output. The agriculture

sector's contribution to the Indian economy is much higher than the world's average (6.4%). The income from livestock management besides crop growth is remunerative and intensifies the benefit cost ratio (Hemachandra *et al.*, 2017).

As part of the DFI initiative, Indian Council for Agricultural Research (ICAR), had developed a model to adopt and develop two villages from each district of the country. So that the State governments can follow the model and frame their policies to double the farmers' income. But there is little or no progress towards this. Small efforts have been made on the implementation and analysis of the progress. On the awareness part, the majority of the farmers lack information about this and are unaware that their villages have been selected as the model village for DFI by the government. Data shows that incomes were gone down in recent years due to various reasons. There are no such provisions of doubling income. The price for the produce is constant, labor occupies half of the cost, inputs share is 2/3rd and other overhead expenses cumulatively exceed the returns from the production in agriculture. Computing current income is difficult. But given the aggregate growth rate of agriculture and contribution to GDP, the share of cultivated area and the current income is declining than doubling.

Seasonal and annual variations in rains mean in-depth and intense impacts on the livelihood of farmers [Ahlawat and Kaur, 2015; Halanaik (2017a; 2017b), Singh 2020]. Higher credits and overheads expenditures, with insignificant returns, make agriculture non-lucrative, especially for marginal farmers. The ability of the agricultural economy to generate employment opportunities for its population is diminishing sharply. The employment elasticity in agriculture is approaching zero (0.01) and has been negative for few states such as AP (-0.13), Kerala (-0.92) and UP (-0.13). Whereas the employment elasticity in the organized manufacturing sector (non-farm sector) is 0.4-0.5 according to Misra and Suresh (2014). Economic development is positively correlated with withdrawal from farming. The percentage change in employment to a one per cent change in economic growth is zero in Indian agriculture (Input Document for the G20 Climate Sustainability Working Group International Labour Office, 2018). The capacity of households to enhance income five capitals are crucial: human, natural, physical, economic and social capital (DFID, 1999).

Study region

For the present study, two districts and eight revenue villages from North Eastern Dry Agro-Climatic Zone (NEDZ) and from Eastern Dry Agro-Climatic Zones (EDZ) of Karnataka have been selected through a multi stage purposive sampling in 2018-19. A household survey on qualitative and quantitative parameters was conducted, with sample size of 306. Agricultural households are the unit of analysis, head of the households working as an agricultural worker across the farm size, gender and social classification is selected as the source of responses.

To assess the combination of factors of agricultural production and their limitations to enhance farmer's income, descriptive information based on summary counts of the survey structure is employed. Initially, by studying and analysing the agro-climatic features and situations in the selected region and after the secondary data analysis on required information, farmers are asked to evaluate how the size of a land holding, no. of plots, labor and capital are influencing their income levels. Informal interviews and key informant interviews were used as an entry point to capture people's opinions for the reason that opinion/perceptions will generally be translated into agricultural decisions. The study was conducted in Centre for the Study of Policy Research and Social Action, Karnataka, India.

Agriculture faces two-fold predispositions, both from the I. production front and II. market distortions (post-production). There are never-ending challenges to farmers' income and these challenges render to land, labor, capital which is production-related. In the production front the challenges to achieving doubling the farmers' income are multi-fold and they have been classified broadly into the nature of the land, labor dynamics, stock of capital sections. The amount of work that farm people do depends on the number of mouths they must feed. The law of inheritance through equal subdivision gives rise to smallholdings.

a. Land

As it is seen from the Table 1, the large and medium landholders earn maximum income from agricultural production, whereas marginal and small farmers make their highest income from non-agricultural livelihoods. The income stated is for the household and given the swollen size of the population dependent on farming, the per capita income computation concerning households is negligible.

When land is considered as the only means of subsistence, the natural law of succession divides it among all the children of the family; therefore, tending to have smallholdings. Smallholdings harm agriculture since these strips of land are not compact for tillage (though they are compact for revenue purposes). The strips of land when sub-divided by each survey number between all the children of a family, the land is scattered all over the village and attached to borders of land belonging to others. It is typically the case that, many separate plots are contained in a single holding belonging to a person. The number of separate plots in each holding is an indicator of land fragmentation given in Table 1.

b. Labour

The elementary family size is 7-8 members in the study region, with 53.8 per cent of the marginal farm households possess land less than state operational holdings (which is less than 0.48 hectares). Landholdings are rain-dependent. The average age of the farmers is 50 years with an average of 25 years of farming experience. The number of dependents is higher than the earning members in medium and large farming households given in Table 2. Despite the low ratio of dependency in marginal and small farming households,

hand to mouth is a raising concern. The expenses exceed the gross income (Table 1) earned by them. Too many members work on a small strip of land, producing too little. Thus, creating the superfluous agricultural population; essentially in the context of marginal holdings.

Idle labor (non-owners of land) is a threat to the household and economy as well, because of continuous consumption without productivity. Although woman participation as marginal workers in agriculture have increased significantly, woman farmers are highly risk-averse due to non-access to information on schemes and programs of the State. Their meagre visits to agricultural research stations', fixated private sphere interactions and curtailed inter-farmer communication hampers innovation and venturesome enterprising in farming.

It is unfair to leave all the efforts of doubling the income of the agricultural workers to individuals or households. Meanwhile, there is a decline of 12 per cent of the cultivator's population (from 55.4 per cent to 44.5 per cent) and an enlargement of agricultural laborers' population (from 44.1 per cent to 54.9 per cent) by 11 per cent in a decade from 2001 to 2011. The per cent of cultivators is decreasing, firstly due to the shift to non-agricultural occupations and secondly due to the incidental inflow of cultivators into agricultural laboring in certain situations. The ratio of agricultural cultivators to agricultural labors is decreasing. Too many types of work need to be done not to overdo the consumption expenditures concerning the proportion of agricultural households' income.

For analysing the social structure of the sample households, the following categories have been made in

the study namely, scheduled castes and scheduled tribes, other backward castes, religious minorities and general castes. An important dimension of the rural economy is its caste structure. The caste which controls or owns the bulk of land also dominates the village. This may or may not be linked with the numerical majority. Nearly 84 per cent of marginal farmers hail from SC/STs background and 80 per cent of the large and 61 per cent of the medium farmers hail from forwarding social communities, whereas 40 per cent of the semi-medium farmers are from religious minority groups (Muslims, Christians and Buddhists) Table 3.

Since a very large population is cultivating the lowest proportion of land. When a large population engages on a small proportion of land, typically a large section of the population becomes superfluous and thereby idle. Three fourth of the agricultural workers' population cultivating one-third of a land, a population equivalent to two fourth of the total cultivators' population is sitting idle and not performing any sort of productive labor.

For instance, a square kilometre of land in India cultivated highly gives employment to how many persons is an ambiguous task, perhaps at the regional level it is approximately 551 people engage as agricultural workers in cultivated area and the population density of the region is 233 people. Despite this, an enormous volume of the population is sitting idle as given in Table 4.

The pressure/population density of agricultural workers is higher than the density of the general population and such high pressure is not very common in other regions of the world. The intensity of this density is obvious in negative terms. Under such weightiness, sub-division of land in each

Table 1: Landholdings and income sources of sample farm households in the study region.

Farmer's category	Average values of 360 farming households					
	Size of holdings	No. of plots	Area irrigated	Costs of cultivation	Gross agril. income	Non-agril. income
Marginal	1.84	3	NA	5,500	7613.16	21838.42
Small	3.78	3	1.51	15,000	18001.35	25154.05
Semi-medium	7.15	2	2.01	45,000	27380.00	24808.00
Medium	17.43	1	5.48	1,16,500	389920.83	341297.78
Large	33.96	1	12.34	1,23,000	813354.00	648220.00

Source: Authors computation from the field study.

Table 2: Demographic details of sample farm households in the study region.

Farmer's category	Average values of (360 farming households)				
	Age of the farmer	Farming experience	Household size	No. of dependents	Migrated members
Marginal	53.2	31.5	7.0	4.0	0.21
Small	41.3	18.9	7.4	5.3	0.56
Semi-medium	47.9	21.2	7.5	4.4	0.29
Medium	52.6	28.0	7.0	5.2	0.39
Large	54.4	26.5	8.6	7.2	0.20

Source: Authors computation from primary survey.

survey number amongst the heirs of a family results in universal prevalence of small farms. It is not the law of inheritance that is making the agricultural land holdings into such a small strip, but the socio-political system, which cannot generate the working conditions for this surplus population. The size of labor hesitantly working (who are left with no other choice but agriculture) in agriculture is three times higher than non-agricultural sector, as discussed in the Table 4.

c. Capital

A vector of resources and capitals that represent a farm households asset base is meagre or not existing in the study region. The farmers have no capital and the available capital shrinks when there is idle labour. The economic repercussions of idle labor are multifold for the reason that idle labor irrespective of working or not consumes to survive. Even if idle labor does not earn, to live if it cannot live by production, it will live by predation. Instead of contributing to the demographic dividend, it antedates on the little surplus in the economy. The sources of revenue generated in the society are either due to the individual means of earning or either due to the inherited possessions. A large section of the superfluous population neither makes current effort; nor does it have any inherited possessions. Thus, all that a socioeconomic system can have, is to be currently stockpiled or to be transferred through generations of inherited possessions for sustenance. Since neither is a possibility

Table 3: Social categorization of sample farm households from the study region.

Farmer's category	Social categorization of farm households (per cent)			
	SC/STs	OBCs	R. Min	Gen
Marginal	84	16	0	0
Small	24	32	22	22
Semi-medium	43	40	3	14
Medium	6	31	3	61
Large	0	10	10	80

Where; SC/STs-farmers belonging to scheduled castes and tribes, OBC- farmers belonging to other backward communities, Min-farmers belonging to minorities and Gen- farmers belonging to general social category.

Table 4: Mean population density per square kilometre and cultivated area in 2021.

Population density /sq.km	Study region
of total area	233
of cultivated area	551

Source: Computed* form Karnataka at a Glance Report (2018-19). (*total geographical area in sq. km by total population gives population density and the total cropped area in sq. km by total agricultural workers population gives the population density of cultivated area).

in the case of idle labor (no current work, no inherited capital), a severe deficit of capital in the economy is inevitable and what little is thereof is consumed at present. Thus, the depression of national dividend is an additional burden to a poor economy like India. It is imperative and clear that circumstances arising out of inconsiderate socio-economic and political systems are accountable for problems of agriculture. The solution to the small and scattered farm holdings is neither enlargement of holdings nor consolidating them unless the holding is economic.

The distributive process of capitals of production for functioning in the productive process is governed by a law called the law of proportion. An excess or defect of any of the factors curtails the efficiency, raises concerns over price variations and gets affected by the principle of substitution. The mere size of the land is empty of all the economic connotations, a large holding might not necessarily be economic while a smallholding is uneconomic. It is the right or wrong proportion of agricultural capital confined to wages, profits/rent and interest to a unit of land that decides the latter economic or uneconomic. If the amount of cultivating capital shrinks, the land must also be deducted and, if the capital enlarges the land must also be expanded. The instruments of production must be in proportion to the landholdings and must vary in accordance with it. What constitutes an economic holding is different in different regions. An economic holding in the interest of economic production must vary on demand. An economic holding cannot only be a size of a land but also the analogous quantity of agricultural stock to that piece of land.

A *prima facie* observation on agricultural stock vehemently brings out the trend that, not only the cultivating capital is inadequate but it is also diminutive for any size of landholding. An increase in capital and capital goods through the process of saving would prevent the existing holdings from becoming uneconomic and out of scale. Saving is possible in a surplus socio-political economy. Rather than the size of an agricultural holding, more focus is to be paid on agricultural stock, savings and surplus, which as a principle not going to happen. Farmers income varies in accordance with their ability to access and accumulate the capital. Farmers are sitting on a dead capital, which will neither allow them to come out of agriculture nor perform big scale farming. Aggregation of scattered holdings concerning their survey number is not pragmatic in the Indian context. The farming population is becoming idle, owing to unorganised revenue land market which distances ways of monetizing powerful assets *i.e.*, land.

CONCLUSION

DFI committees' fundamental fulcrum is to double the farmers' income. The debatable part is whether it is possible to double or enhance the farmers' income through agriculture alone, given the parcelled-out size of land. The land is a powerful asset, however such an asset-owning group of people in India are powerless. Are farmers better off doing

more of the same, remains as an unanswered question. To enhance the future income of agricultural workers, it is important to work on current limitations. Failure to address the preceding deficit in current period, the State is unlikely to build the capacity of farmers to enhance their income. Land tenure constraints must be relaxed to ease the diminishing returns experienced in farm employment. To employ the predating surplus-labor, non-agricultural occupations are the way. It has a two-fold benefit, firstly it lessens the burden on the limited land, and secondly, it adds to the capital by creating a surplus. Doubling farmers' income through farming activities might not be achieved and nowhere in the world, the income of farmers has been doubled without people opting for farming-related and non-farm occupations. Whether farmers want to double their income or stabilize their income is a point of contention. A sense of stability should be brought to the agricultural sector before doubling the mere income of the people involved in it. The probable trails to double farmers' income are to either accelerate present achieved agricultural growth or to withdraw from full-time agriculture. The efforts to enhance real farming income are to be pursued via attempts to increase the stability of socio-economic systems, which pertains to the steadfastness of systems.

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