

ENABLING PEOPLE AND PROCESSES FOR RURAL TRANSFORMATION: A KNOWLEDGE ENABLED INSTITUTIONAL ECONOMICS PERSPECTIVE IN GUJARAT

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Abstract: This paper discusses markets in the farm to food process sector. In addition, access to credit, technical knowledge and education backed by access to institutions play a role in improving farm income and create a Vent for Agricultural Surplus. These enabling processes are then described in detail based on author's field visits in Gujarat.

Key Words: Rural transformation, Wholesale *mandi* (market), Farm efficiencies, Institutions, Vent for surplus.

I. Introduction

For India to achieve the five trillion dollar economy, rural India needs to undergo a transformation. For this, the focus ought to be on the development of villages. As every economy has its own distinct characteristics, the agenda needs to be set by local institutions. The present research is a commentary on how institutions can facilitate farmers in increasing their incomes. The term institutional economics had been first coined by Walton Hamilton in his 1919 article published in the *American Economic Review*. However, a section of economists started taking much interests in this subject since 1970s. The subject gained tremendous currency in agricultural economics with Allan Schmid. Schmid (2004) argued that institutions play an important role in generation and growth of rural human capital and enterprise. This triggered a surge of research during the early 2000s. This research was instrumental in showing how institutional innovation, technological knowhow and geographical access create the scope for global knowledge within a bottom-up approach wherein local institutions set the implementable development agenda (Easterly, 2001; Acemoglu et al., 2002).

Classical and Neo-classical economists assume prices are determined through the interactions

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of demand and supply, i.e. market clearing process. However, some of the important theoretical elements of rural development and neo-classical theories with regard to the process by which the “surplus capacity” came to exist in rural economies were explained by Myint (1958) but some clinching arguments remained to be clarified. A key question posed in the “vent-for-surplus” models is: Why should such surplus capacity exist? Classical theory would suggest that price of the abundant resource would fall relative to other factors until the most scarce resource was fully employed. The “vent for-surplus” model assumes an inelastic domestic demand for the exportable commodity and/or a considerable degree of immobility and specificity of resources (Myint, 1958: 322). In an elaboration of the “vent-for-surplus” model, Caves (1965) emphasizes that the existence of these ‘surplus’ resources reflects the state of economic organization in general and not a failure of the market mechanism.

Essentially, the literature tells us that neo-classical economics did not enter into areas such as transfer of property rights. Eggertson (1990) defines this phenomenon as a part of the farming production function where there is essentially a transformation of inputs into which an underlying constraint of organisations and institutions exists. From this it may be deduced that institutions and organisations carry out the function of the invisible hand popularized by North (1991), by facilitating transactions. These economies are achieved through incorporation of trust (Acemoglu et al., 2005).

For mitigating challenges imposed by the conventional system, local food participants, particularly farms and food retailers, build trust and reciprocity; and this connection was well established by Trivette (2019). Due to near zero transaction cost and security motives relevant to the exchange process, things go beyond self-interest by incorporating trust and a concern for fairness. The ubiquity of trust in situations in which there is a homogeneity with respect to ethnic attributes and opportunities to counteract is a prime factor. Classical examples of these are the informal lending institutions (Kumar et al., 2013). Eswaran and Kotwal (1986) showed that trustworthy behaviour from farmhands, family members as well as farm labourers was crucial in this regard. Social pressures and reliance on moral dispositions ensure minimal possibility of betrayal, resulting in an alternative paradigm of efficiency as Arrow (1974) clarifies.

With the background to the theories described above, a brief discussion is provided in section two about agriculture in the state of Gujarat and the objectives of the study are provided in section three. In section four, we discuss the results. Section five concludes the commentary by providing certain inputs for policy formulation.

II. A Brief Development Profile of Rural Gujarat

Gujarat’s agriculture has undergone a major shift towards high value nonfood crops against food grains (Swain et al., 2012). Kumar (2010) details agricultural reforms focussing on modernisation of agricultural practices, crop diversification, better infrastructure, and improved marketing system. Shah et al. (2009) and Swain et al. (2012) call this transformation as a commercial, publicity driven campaign. However, an important clarification that is put into perspective by Pattnaik and Shah (2015) is how far the growth process has percolated to the poorer sections of the society.

Government’s big push is a prerequisite for extension mechanisms to become successful with traditional farmers as Schultz (1964) has convincingly argued. Rural transformation requires an infrastructural and technological change in the conventional notion of rural development. This argument is supported by Mellor (1982) who initiated the notion of positive feedback with the intervention of proper policy handles that would create conditions for rural transformation by

synergising rural-urban activities and upscaling the prosperous rural markets. For this, access to credit and finance is necessary. In a state beset with the problem of stakeholders holding conflicting interests, this access is difficult. However, the state has backed farmers who have sufficient property and own large farms, enough to ensure viability.

III. Objectives

As a first step towards understanding the role of organisations and institutions in surplus generation, we refer to a study by Alagh (2014). The study surveyed 360 farmers of Gujarat in 2011-12. The study attempted to address the following questions

- What is the role of markets in the route from farm to food process?
- Does access to institutions play a role in improving farm income?
- Is reform underlined by the farm bill related in the local context in Gujarat to specific characteristics and social and economic framework of the region?

For elucidating the role of institutions and organisations, we follow the minimalist approach which also includes farmers with large landholdings in a district facing arid agro-climatic conditions. For understanding the role of institutions in increasing farmers' incomes, we take the case of Junagadh. For devising policies, we examine literature on contract farming failures and the underlying hazards of information asymmetry as well as moral hazards. We link this to our findings and provide recommendations for policy development.

Irrigation after Sardar Sarovar Project implementation has led large farmers to lease in land from small farmers. The large farmers thus also have large operational holdings (Alagh, 2014: 76-77). Prosperity has also led to usage of tractors and threshers. Livestock ownership for large farm households is very high. As far as sale terms are concerned, medium and large farmers have more access to credit, and information networks and the traders act as easy sources of information for them (Ibid. 119-120).

IV. Results

a. Modernised agriculture and transformative public, private and social institutions

This data is extracted from the study by Alagh (2014). We have considered ninety-nine pigeon gram cultivating farmers. Tur is a foodgrain and it is a commercially saleable commodity having enhanced values as compared to several other food grains because it can be consumed in various forms such as dry green tur seed vegetable or grown matured tur dal. Tur is kept at farmer's home for household consumption and the surplus is sold as an important food item. Its enhanced response to high moisture content in air and local storage/godown conditions give it an advantage for future marketing purposes.

From the field visits we found that the Agricultural Produce Market Committees (APMCs) of Unjha and Bavla receive daily stocks, resulting in continuity of commercial transactions. Elsewhere lack of dependable wholesale Mandi meant that traders dominated the sale of the crop and price, as the APMC-type auctioning is absent. This implied that transactions were skewed and were facing problems of informational asymmetry. The lack of checks and balances ensured increase in transaction costs.

Through the interactions with rural stakeholders, we found how the lessor of the government godown was acting as the local trader and was doubling up as an intermediary. Technically, this was a case of conflict of interests and is likely to result in moral hazard. Additionally, illiteracy, lack of

awareness and overreliance on digital media have pushed farmers in the vortex of informational uncertainty. The reason attributable to this is outsourcing of government functions to private agents, where private agents are mere profit maximizing entities. Further, one common baseline issue is that farmers with medium size landholdings between 4 and 10 hectares are more competitive and earn higher surpluses as they have stronger motive to generate surplus for reinvestment.

As electricity consumption by farms is very high due to intensive irrigation at certain seasons of a year, the electricity supply can sometimes fail; and then, one needs to reprice the electricity or even ration it according to demand and use type. Farmers in India still will use the power-driven tube wells as Alagh (2014) shows.

Tube-wells are the major source of irrigation; in some areas there is irrigation with diesel tube wells and generator pump set backed bore wells. This shows that there is sufficient supply of electricity for irrigation. Our sample shows that investment in tube wells is high. There is a great thirst for water in Gujarat agriculture and this continues with SSP (Sardar Sarovar Project) water.

b. Accelerating the transformational process

The ability of conventional market instruments to deal with uncertainty is limited in neoclassical markets (Alagh, 2014). Governments have been promoting policies for increasing farmer's income.

- Scenario for change in agricultural processes

We looked at Junagadh district to look at possibilities of change in agricultural processes within a local context. Similar to our earlier example, this district too lies in the rainshadow region and receives less than 500 mm of rainfall per year. The situation of Junagadh farmers improved with the adoption of new technology like micro-irrigation. This gave a boost to the farming capacity by 140,000 hectares in the last fifteen years period from 2005-06 to 2019-20. During the same period, number of cattle increased by 8.5%. Similar to their horticultural counterparts, food grain farmers too were prosperous. During our field studies we saw that farmers in this region were market savvy. So, this part of South Saurashtra is a very successful place with regard to government projects/schemes for farmers who value tools like sprinklers and technology like GM seeds. Through our interaction, we found that educational institutions had played an important role in this transformation. If the focus in this period had been on linking knowledge with other institutions for the prosperity of an average farmer, and had we built institution support, linking it with the production of Durham wheat and Jeerasar rice and *ghee*, some greater aggregative development would have been achieved.

- Possibilities of modern institutions in farming in this region

McCain¹ began contract farming in Mehsana region of Gujarat in 2006 with four farmers and 16 acres of land in Badgam village (Sharma, 2008). The landholdings in this area are quite big. Half the farmers own more than 10 acres each. But everyone, small or big, is invited. At the beginning of the potato season (i.e. in November), farmers sign a contract pledging to supply at least 10 times the quantity of seed by the third week of March (i.e. end of the season), after which purchases stop.

The quality parameters were specified by McCain; and a detailed schedule of farming practices, written in Gujarati, is provided for each variety of potato. Agronomic advice is also available on call. Farmers get seed spuds for half the price; the rest is deducted from the sale price. If farmers default, post-dated cheques are encashed. Farmers start with McCain and then move on. Often they grow crop for multiple buyers. Unlike McCain, PepsiCo and Balaji Wafers buy through agents, who

²Such multinational projects are dependent upon vagaries and uncertainties of political environment and we set let aside for the time being.

are paid a fee for their work. These vendors dip into the open market if procurement falls short of contracted quantity. An amalgam of factors—such as a law that allows farmers to sell directly rather than through mandis, a choice of buyers, a rash of cold storages incentivised by subsidies and regular power supply, a network of good rural roads, and access to information on the internet and the mobile phone—has given farmers better control over their lives.

The narrative of agrarian crisis brought about by globalisation breaks down in Gujarat's potato belt. Small farmers have gone entirely commercial. Farmers buy wheat for consumption from the market, rather than growing it. In this region, the small and medium farmers want to maximise earnings by growing crops for two companies — one for assured income and the other to earn profits. They find global corporates better at spreading agricultural technology than government agencies, because of aligned interests. They, like the company, are keen to boost yield.

V. Discussions and Conclusions

Secondary data from publications such as Government of India (2011) reports from the Ministry of Statistics and Programme Evaluation, and primary source such as above show that as much as formal system of contracts and extension services will accelerate growth of farmer's income, the 2000 New Agricultural Policy and 2020 farm laws will work only under certain gradual processes of rural transformation.

Although well functioning institutions play an important role in reducing transaction costs and look at social benefits, perverse outcomes are possible, wherein the principal power usurps the benefits. For avoiding these kinds of failures in the case of agro processing contracts, non-contract farmers store their produce at the nearby cold storages and after some months they sell it to the processing organisations.

For this, the cooperative acts as conduits between the farmers and the contracting firm. Kumar and Panigrahy (2016) have convincingly argued that a farmer cooperative can ensure that small farmers do not sell their produce at throwaway prices in the Mandi. Thus, small farmers were getting benefit from the cooperatives and re-defining the idea of contracts.

Beyond the usual response factors underlined by a regression result from an earlier study of 2014, we infer that in a water-scarce region, for the market to work efficiently and with no discrimination, a tripartite initiative between the state government, cooperatives, and the companies need to be devised. Additionally, private rural initiatives in education and information can boost the transformation of agriculture, by providing extension services in far flung areas.

On the whole, these processes need to go beyond horticulture and fruit crops. A dynamic change is possible if the underlying processes of agriculture are well sorted. In conclusion, here we can say that consumer demand for agri-business-linked products, specially contract farming linked wafer companies in Gujarat, will rise for both global and local companies but changing the mindsets is not easy. In the potato belt, most farmers still grow table varieties. Many articles on the potato farming in this area say that the farmers are lacking the discipline to meet corporate quality standards. Structure of the market can be moulded to objectives without stepping on bare feet of farmers.

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