SELF EMPLOYMENT AND AGRICULTURE-RANDOM EXPERIENCES AND THOUGHTS

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Construction, Workshop Fabrication and Repairs, Energy Environment, Agriculture, Animal Husbandry and Homo Science. He has worked at CFTRI and was at Engineering Science Division at Hindustan Lever before experimenting the new system of education for rural youth at Vigyan Ashram.

Introduction

Among all vocational courses, -the agriculture related courses are unique in that they could take any number of students without getting saturated. Also, there is hardly any problem of marketing. Yet most people already practicing the vocation, want to quit and the rural youth do not want to take it Why? Unless we solve this riddle, we will neither have good agriculture nor solve the unemployment problem of the rural areas.

The Problem

Agriculture is seen as a drudgery, anon profitable occupation, that has to be avoided if one can. The farmers generally see it as purely a matter of fate and would like to see their children saved from this fate. At best, they see the farm as something that keeps them alive. No profession can grow if this is the perception Of most of the practitioners.

If agriculture is shown to be profitable, the cream of youth will want to get into it. The objective should be for the vocational courses to demonstrate that one can make money in agriculture. Thus the agriculture related vocational courses, as presently given, are unable to do. Yet agriculture is the mainstay of the nation and increasingly even the industrial class thinks of getting into agriculture as an industry.

Agriculture can be made profitable and has immense opportunities but the vocational course are not able to demonstrate this to their students. If this is done, not only will it start a rush for agriculture related courses but also most of them will opt for self employment.

Vocational courses should not consider their job as only to teach the technology. They have to show how to generate income through whatever they are teaching. This will involve a whole package of skills, including technical, management and entrepreneurial. And often the others are limiting, not the technical knowledge.

The Industrial Culture

Unless agriculture becomes an "industry", it will not be profitable. What I mean is that the industrial culture must come to the agriculture practice. This industrial culture consists of having clear specifications for the inputs, the process and the outputs; there must be financial discipline and cost consciousness; planning and rational decision making and finally an awareness of performance indices – one must

compare one's performance with industry standards and strive to better them. This industrial culture has to be absorbed by practice, not just through the classroom.

Pre-requisites

In teaching this culture the first obstacle is, the aversion for arithmetic and generally a tendency to avoid quantitative aspects. This aversion comes from a dislike for all mathematics that is bred in our primary schools. We have to remove this phobia and show that it is not difficult and with some practice it is mastered. A simple calculator is a great aid in this. People who have problem doing sums can use the calculator and remove the drudgery. They must know and understand however, the operations they need to do on the calculator. I would even suggest the calculators must be made cheap so that every adult has it and uses it.

Equally important is the familiarity with measurement - weights, lengths, area, and volumes, temperatures, etc. Concepts like rate, ratios come later and through practice. Thus, simple arithmetic has to be a part of every vocational course. Assuming that the students have already done it in the primary school does not help. In fact majority of the students in the vocational course will be poor in this skill.

Finance is an important part of any vocation. Yet, it is a pity that even a majority of the commerce students, do not know how to make any bank transactions, nor are they able to keep even simple accounts. It is a very simple operation if taught in a simplified way. The accounts should be a part of the vocational course.

Tabulation of data and its interpretation is also another intellectual skill that is lacking and should be part of the curriculum. Often graphs are more expressive than tabulation. This cannot be taught except through constant use. Recording of all data in a proper format and its review is the best method for this.

Data has to be collected. Are there facilities? What does collection of this data involve? Often, we ask for data that takes a long time and effort to collect and the use of it does not justify the effort. We must therefore designate the data that is essential for the health of the operation.

In my opinion, the performance indices, the accounts, including the stock and inventory, the profit and loss are the essential data. Yet, we ignore this basic lack of facility. How does one weigh the fodder in bulk, by bundles or by weight? Weighing is such an important part of industry. It is an equally important part of agriculture, but the facilities are lacking on every farm. It is a pre-requisite for our development process.

Rural Business Centre

Information is another scarce resource in the rural setting. We are talking of the coming electronic age as the information technology age. First: land was the main resource- this gave rise to landlordism, land being the source of power. Then, with the industrial revolution, capital became the key resource. Capitalism gave power to those owning the capital. In the coming years, information technology, access to information and skills in using it will be the key. We have to give the rural section access to the world of information, otherwise the backwardness will continue.

We have talked about the arithmetic, accounting and result organising skills; but these can be used effectively only when you have access to your own as well as the external data and information. We must have access to the world of commerce. The rural society must be able to communicate. They must have the telecommunication facilities, the trade journals and secretarial services. If the secretarial services are

important to the company executives, because their time is valuable, they are important to the rural farmers, because he does not have the skills to write and express and so he needs help in the form filling and letter writing and documentation work.

With the present level of education, where many farmers can't write at all, where even those who can write, can't write and express properly and the writing is often illegible, secretarial services are a must. A Rural Business Centre, located in a school and using the skill of their staff and students will be an ideal solution. Not only will the farmers get the services, but the school will be serving the community and through this make its education more relevant. A computer, a STD/Fax or electronic mail for both the giver and user, I expect, will be self sufficient. Availability of daily market rates before booking agri-produce to the Mandal will be welcome to all. If the cost is distributed over the whole farmer community, it will amount to very small amount.

Operations like a milk collection centre, have to keep daily records of milk collection of each account holder (producer), its fat and SNF/or lactometer reading, and spreadsheet application will not only make this easy and fast but will be able to generate reports, about the interpretation and plans for future. An average centre can have over 500 account holders and an average of 10 litres (1) milk per account. Therefore, an average dairy will net Rs. 30,000 per day (@ Rs. 6/ litre) and will pay the Business Centre Rs. 60 per day for all the entries. This itself may use about 4-6 hours of time per day.

Most formers have no record of the farm operations. Even when they do the same crop again and again, they have no data for comparison of their own earlier experience, leave alone that of others. If we make a separate data base for each farmer, he will be able to learn from his own and others experience. Unlike the dairy records, which are maintained now, the farm records will be a new activity, and we shall have to convince them of the utility of the same. But this is part of the industrial culture, that only through analysis of your performance data, can you control costs and improve performance. In the absence of the requisite skills with the farmer, the Rural Business Centre can do it for him.

The rural business centre should also help him with commercial information, the prices in the various markets, and the costs of selling there. The rural business centre, if equipped with the communication facility also, particularly fax or E-mail, would tell him about his options. The whole marketing system might undergo a change.

Apart from benefitting the farmer and the dairyman, the small traders, etc., the operation will create a new set of opportunities. While it is difficult to quantify these benefits, it is certain to change the complexion as modern management techniques have done for industry.

Staff Selection

If we want the vocational courses to be courses that promote entrepreneurship, then we must have staff who believe in it. It also means, at some stage the staff should want to resign and start their own enterprises rather than just teach enterprise. The staff who look for security will not be able to do this job. We should therefore see how we can attract potential entrepreneurs to the teaching job? I suggest this could be done by offering the farm and the working capital of the course to the teachers to demonstrate their knowledge and allow them to keep a share or most of the profits. So only those who are keen on self employment in the agriculture sector, would like to come as teachers, to gain experience, before they launch themselves in their own

enterprises. Thus the teacher post becomes a stepping stone for the entrepreneur. Then we can hope to make the vocational courses popular and effective.

Scope for Self Employment in Agriculture Operations

We have seen how the managerial skills can open up opportunities for service industry in the agricultural sector. There are also opportunities for the new vocational graduate through practice of technology. Most of this technology already exists but has to be demonstrated and shown to be profitable. There would be many more such areas. We shall see some as examples.

A) Cattle Fodder/Feed

The deficits for the following cattle feeds have been noted by ICAR.

		Value (Rs.)
Green Fodder	388 million tonnes	31,000 crores
Crop Residues	639 million tonnes	64,000 crores
Concentrates	82 million tonnes	24,600 crores

Total value of the deficit in cattle feeds 120,000 crores

This means there is an almost unlimited scope for the production of cattle feed, if it can be produced at commercially viable costs. As a farm product, it should be profitable to the farmer. And as a cattle feed it should be attractive to the dairyman. We shall first see the prices of some commercial feeds (Table A).

TABLE: A
PRICES OF SOME COMMERCIAL FEEDS

Item	TDN% on drywt		% Moisture	Market price (Rs./Kg)	Price TDN
Jowar REs.	52	12	1.00	2.16	
Lucerne	62	75	0.80	5.30	
Silage, maize	61	30	0.75	1.75	
Concentrate	81	10	3.00	4.20	

This shows how the relative costs of maize fodder are in relation to other feeds. While the Lucerne is the most expensive, because of its superior quality, it still finds a constant share of the green fodder use.

Considering from the farmer's point of view, the following yields and costs are informative.

Crop	Yield/acre		Expenses	Market price (Rs.)	Profit/acre (in 3-4 months)
Jowar grain	1006	2684	3.50	1438	
fodder	600	1.0			
Bajra grain	1050	2385	3.0	1568	
fodder	800	1.0			
Maize fodder	19555	2572	0.4	5250	
Groundnots	815	4580	8.0	1940	
Lucerne	14581	6116	0.8	5549	

These figures indicate that. maize and Lucerne are indeed very profitable for the farmer and also economical for the dairyman.

Considering all the above, it seems that cattle feed could be the basis for a large number of youth for self employment. The maize can be made into silage. The dried

crop residues could be blended and made/extruded into blocks for feeding. There are large number of possibilities, when the market deficit, alone is Rs. 120,000 crores.

Apart from the fodder crops, the fruit and the vegetable industry is booming. Food processing, for bulk production, appears to be growing very fast. The poultry broilers business is growing around 20% per year. The value added by dressing is substantial. The dried chicken, appears to have some market. The milk products are growing.

All in all, the agriculture is likely to be a very profitable operation. When the agriculture catches on, the mechanical, civil, electrical/electronic industries will grow to meet the needs of the agriculture production.

All this, growth will need support from the technical and management experts. Consultancy will be more in demand.

An Entrepreneur is not just a self employed. It implies innovation and uncovering new opportunities. I see agriculture as a fertile ground for the entrepreneurs. Our vocational program will produce them, only if we operate it in real life situation and show how it can make profits.