

The experience of education for work of the POCET/CENET, Honduras 1990-2007 Education/training and increased productivity

Mario Hugo Rosal G.

INTRODUCTION

The education-for-work methodology was put into practice in Honduras at the beginning of the 1990s. This methodology was applied and validated with the aim of improving the level of life of the poorest sectors of the population in rural areas of the country. One of the objectives of this initiative was to contribute to the fight against poverty, which is partly rooted in low labour and productive capability stemming from a lack of training/education, organization and job opportunities.

Neither the formal education system nor vocational training have responded opportunely to the educational needs of people in the age group who are able to produce but who are illiterate or have low levels of skill. Education for work is a contribution to combating the high levels of chronic poverty that impede human development for individuals and groups, especially among the rural population.

A NEW APPROACH IN ADULT EDUCATION

There have been three kinds of initiatives to tackle the educational and productive deficiencies of adults in rural areas:

- a. The formal education system has implemented literacy and adult education campaigns and permanent programmes, but these have failed to overcome illiteracy in rural areas.

* Mario Hugo Rosal G. is Chief Vocational Training Specialist. San José ILO Sub-regional Office. Costa Rica.

- b. Vocational training has not responded; it has been geared mainly to modern economic sectors so the poorer population groups have been marginalised and they have not reached this kind of training.
- c. Development organizations have promoted productive projects as an instrument to help in the formation of small enterprises in response to the growth of the informal sector.

These efforts have taken the form of partial projects, and this has tended to hinder progress towards integrated development.

The aims of education for work were to bring literacy and basic training into vocational training, so these educational processes would be coordinated with productive work and organization for self-managed production in rural areas.

The beneficiaries

The beneficiaries of the education-for-work initiative were the economically active population and unemployed people between 15 and 49 without schooling, with or without monthly wage, the illiterate and inactive female population, and supposedly literate adults who did not complete their formal education and became functionally illiterate.

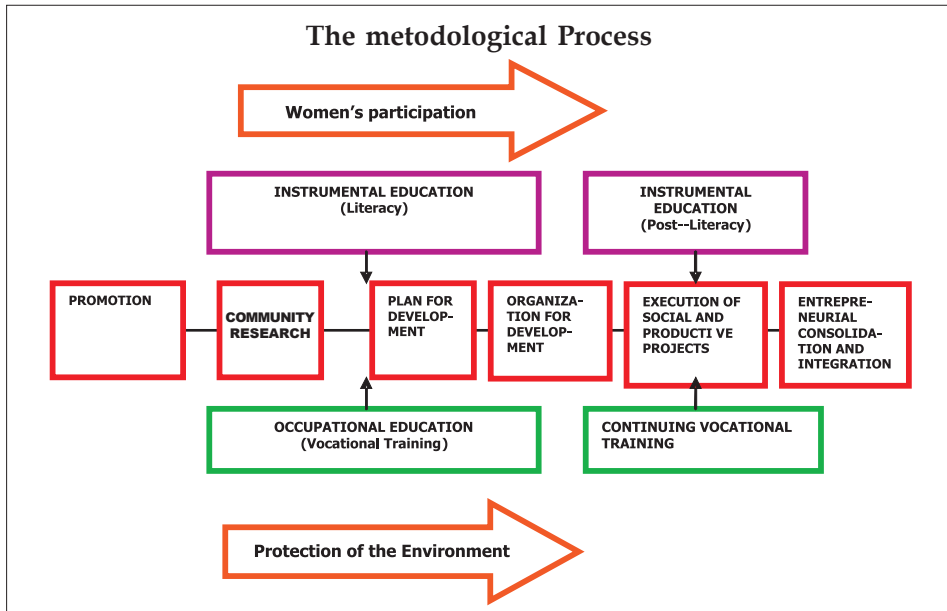
Methodology

The methodological process consists of the following components: participative community research, a community development plan, socio-entrepreneur organization, the execution of projects, and instrumental and occupational education.

The methodological process

Participative Community Research

The aim of participative research in the education-for-work initiative is that the participants should begin to think scientifically through the ordered study of their own situation using basic social research techniques. The final stage of community research is to put the problems that have been found in order and present them in a community dissertation.



Planning of Community Development

This stage involves sketching the route from the situation that has been found or recognized through local research to an ideal of what the community could be. This plan includes an ordered series of steps and specific actions that will have to be undertaken in sequence to improve the situation of individuals and of the group.

Socio-Entrepreneurial Organization for Collective Work

Using the Community development plan as a basis, members of the community are organized around productive of social activities that have been defined in previous stages of the process.

Execution of Projects

The productive and social projects are the integrating core of instrumental education and occupational education (VT) through 'learning by doing'. They are a means to foster the creation of productive units that have a sense of permanence, acceptable levels of income, entrepreneurial management, and the ability to sustain themselves with their own resources or by taking

advantage of the opportunities that are available to them through the formal system.

Instrumental Education

This is geared to facilitating the conscious and reflective perception and assimilation of labour and productive activities. It is made up of three areas of study: reading and writing knowledge and skills, basic arithmetic, and humanistic training.

Occupational Education (VT)

The aim of this is to develop a specific ability considering the requirements of a job or occupation. It is made up of the areas of technical training to carry out a productive activity, training in organization for collective work, and entrepreneurial training to administer and manage productive units.

WOMEN'S PARTICIPATION AND THE ENVIRONMENT

In education-for-work methodology there is a twofold emphasis: that women should participate on an equal and equitable footing with men in all educational and productive activities, and that technological innovation should be used but with due care for the environment.

Preliminary results

The main achievements can be summed up as follows:

1. The ability for autonomous management in the communities involved:
 - Forming teams of local educators to manage the process; forming productive groups; setting up inter-group organizations for production, management and commercialization (cooperatives); helping communities to be able to analyze and understand their own reality, define and prioritize their needs and plan their own development; improving levels of education and production; and increasing the participation of peasant women in community development efforts and in educational and productive activities.
2. Promoting a favourable national and institutional environment in government and also in the private sphere, which favours the adoption of education-for-work methodology in national policies and institutional practices.

EDUCATION FOR WORK AND ITS LABOUR AND PRODUCTIVE IMPACT ON THE POPULATION

The objective of the study, the population and sources.

In order to establish the connection between vocational education/training and increased productivity and decent work, research was undertaken among some of the beneficiaries of the POCET/CENET project in two different periods. The conclusions are given below.

The aim of this research was to determine in what way, how, and to what extent the application of education-for-work methodology had wrought improvements in the quality of life of the beneficiaries. Improvement would be measured as reduced dependence on seasonal work, increased opportunities for autonomous work, the diversification of production, increased productivity, and improved levels of productive organization.

The population surveyed consisted of the oldest and most active communities in the POCET/CENET area of influence, which had participated in the methodological process for three years. Communities that had a minimum of three productive groups per community and that had executed at least two projects were selected. This involved one group of only men, one group of only women, and a mixed group. The research was based on the results obtained by educators, who made up an accessible control group, and it involved 34 out of a total of 198 occupational groups.

The information sources were the productive groups, the technical educators in production, local and regional educators, regional cooperatives, mixed groups, one group of women (besides a focal group) and the families of participants.

The target population were the people who took part in the experience. Visible quantitative aspects to do with production were found in the material surveyed, and also qualitative aspects, namely the perception of the actors involved, based on their experiences. A noteworthy aspect of this was the importance in time of the transition from one situation to the other, and why these changes should have occurred. As we shall see, the beneficial effects go beyond the sphere of economics and production. It emerges that education can have an impact that enables people to manage their situation in an increasingly rational way, and new relationships are generated within the community and outside it. What happens is that the new vision and new practices in work lead to a new attitude to life.

This research was built around three components that are derived from the educational processes involved, and these are closely inter-connected in a logical way. First, the **productive** component – this may not be the direct aim of education for work but it does constitute an indicator of the labour ability that is generated; second, the **labour** component – which translates into the ability of the worker as such, as the result of the educational process; and third, the impact on **well being** or raising the level of life, which is the ultimate goal of these processes.

Productive impact

An outstanding component of the programme is to formulate productive processes that are conceived as a **laboratory** in which learning takes place under the principle of ‘learning by doing’, and from this flows the connection between education and organization, management, production, credit and commercialization.

This means analysing the improvement of the beneficiaries’ work or the results of that work, that is to say bringing about ‘manual literacy’.

The target sample groups were in the POCET/ CENET area of influence, and the experience lasted from 1992 to 2000. In this period, out of a total of 198 groups 33 were researched (16%), and this involved 266 participants of whom 224 were men and 42 were women (25%). The groups mostly date from 1990, but there was one from 1986 and one from 1987. These two groups had been linked to peasant organizations, and they subsequently joined the education-for-work process.

Productive projects

The region with the fewest **projects** was Comayagua, followed by Intibucá and Marcala. The greatest number were to be found in Siguatepeque and La Libertad. The minimum number was 3 and the maximum was 15.

Increased production

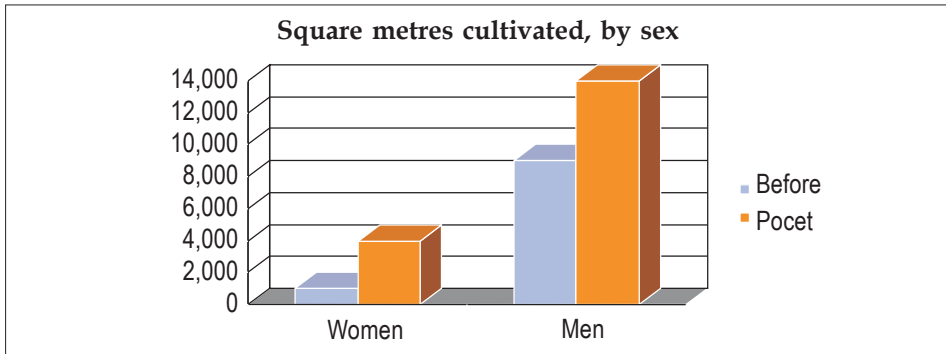
It emerges that in spite of higher production costs, illnesses and increased labour costs, all groups increased the areas they were working and intensified cultivation, which resulted in yields that were considerably higher.

The table below shows the area cultivated before the project, the area now, and the percentage increase.

CULTIVATED AREA IN BLOCKS

PROCUCT	BEFORE	NOW	DIFFERENCE
COFFEE*	157.5	253.25	95.75 (60.79%)
MAIZE	123.5	180.0	56.5 (45.75%)
KIDNEY BEANS	48.25	72.00	23.75 (49.22%)

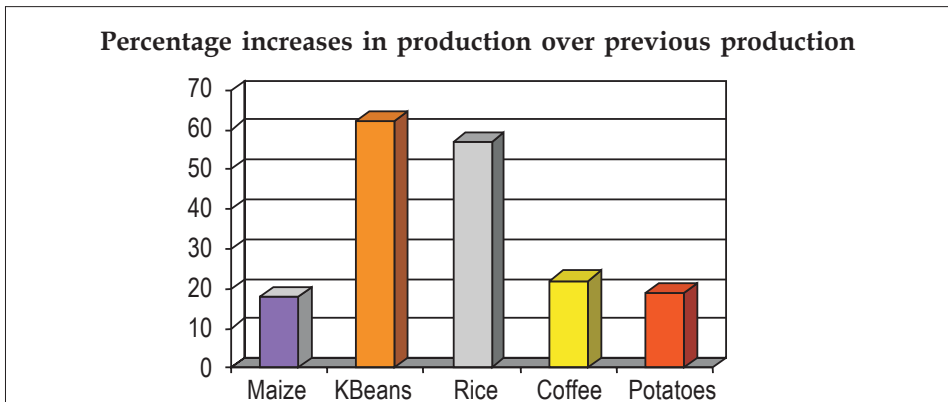
The chart below shows the area cultivated by sex, before and after the project.



Productivity

The chart below shows the increase in yield per block. It is clear that these increases depended on opportunities to execute projects with an alternative educational base, and this made it possible to adopt more suitable technology, and also to increase the investment in terms of inputs and work force.

It can be seen that there were considerable percentage increases in production per block of maize, kidney beans, rice, coffee and potatoes.



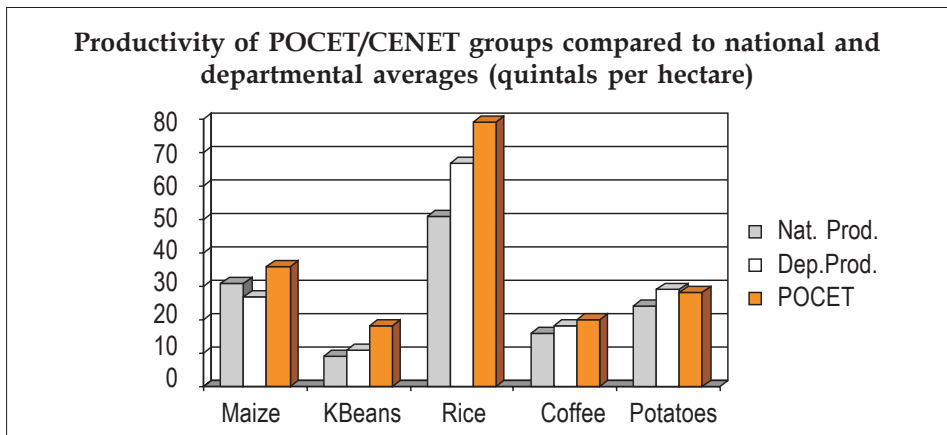
Increases in production were due to a variety of reasons including the following:

- People’s attitude towards the application of technology.
- Internal and external resources were utilized in a rational way.
- The productive projects implemented had been tested previously.

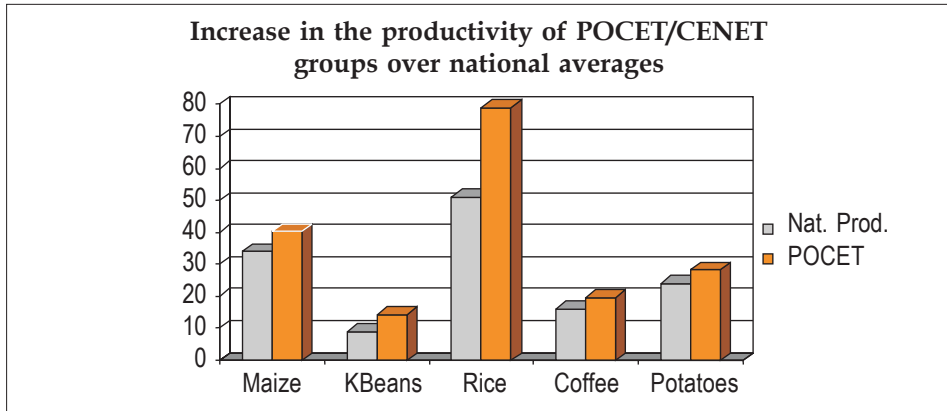
The table below shows the increase in production per block. This is measured in quintals (100 pounds) per block (approximately 7,056 square metres), before and after the education-for-work methodology was applied.

Yield per block in the five areas					
PRODUCTS	NOW	Q/BLOCK	BEFORE	Q/BLOCK	DIFFERENCE
MAIZE	41.4	q/b	15.08		26.32
COFFEE	19.3	q/b	8.7		10.6
KIDNEY BEANS	14.6	q/b	6.1		8.5
POTATOES	205.5	q/b	154.5		51
CHILLI	160	q/b	120		40
RICE	80	q/b	70		10
VEGETABLES	22	q/b	0	New product	0

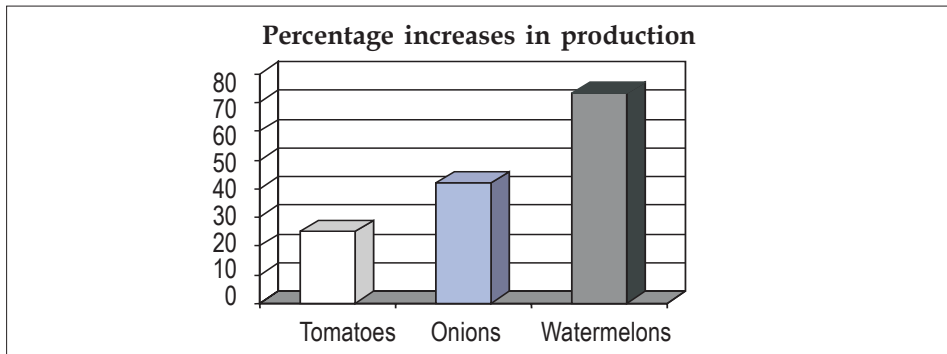
We can use a more specific analysis to show the increases in production of five of these products by a comparison with average yields in the country and in the department.



It is important to note that production per unit of measure by the POCET/ CENET groups increased in comparison to average production in Honduras as a whole. This is shown in the chart below.



There were also significant percentage increases in production per block in other products like tomatoes, onions and watermelons, as is shown in the chart below.



Financing: investment and re-investment

The application of this methodology created opportunities for financing far in excess of what was available previously, but this investment would not have been possible without credits. It was necessary within the initiative to generate suitable credit lines to finance the productive projects involved.

Investment

PRODUCTS	NOW Total cost of inputs	BEFORE Total cost of inputs	DIFFERENCE Total cost of inputs
Coffee	2269		2269
Maize	1223	993.5	229.5
Kidney Beans	776	207	489
Chilli	4800	240	4560
Cabbages	7500	3680	1500
Carrots	2800		2800
Tomatoes	6625		6625
Other vegetables	7440		7400
Rice	3040		3040

Financing: credit and similar sources

New resources were required to finance the increasing amounts of inputs and to acquire the materials and tools needed for the productive experience. Credits became necessary and, in fact, indispensable for the POCET/CENET learning project. Although the main function was to validate a methodology rather than to make credit available, the productive groups needed finance.

Thus a credit and commercialization unit was set up, and this paved the way for a fund which was administered in the form of a trustee agreement with the savings and credit cooperatives in the sector. Under this system, credit was considered an educational tool, and this amounted to a break with paternalism and progressively opened the way towards formal financing institutions, with all their rules.

Profits

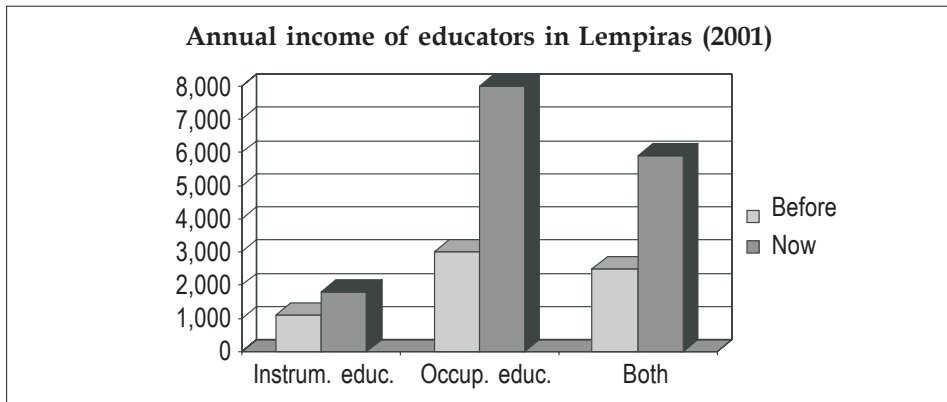
Income per product increased thanks to the adoption of technologies, the increase in production areas and the adoption of business administration methods. This applied especially to the production of basic grains, vegetables and coffee, and the beneficiaries of the project made substantial profits.

The table below shows the profits and global increases in 2001 Lempiras (Honduras' currency) for some products, following the application of the education-for-work methodology.

Profits

PRODUCTS	NOW			BEFORE		
	Income	Outlay	Profit	Income	Outlay	Profit
Coffee	18,116.50	11,363.00	6,753.50	5,707.70	3,382.50	2325,20
Maize	6,167.00	4,284.00	1,882.00	2,038.80	1,231.00	807.80
Kidney beans	5,459.30	3,066.00	2,393.30	1,794.00	330.00	1,464.00
Potatoes	31,650.00	21,830.00	9,820.00	12,450.00	3,979.00	8.471.00
Chilli						
Tomatoes	17,280.00					
Carrots	13,333.00	7,320.00	6,013.00			
Cabbages	54,400.00	12,900.00	41,500.00			
Other vegetables						

Source: based on area instruments and workshops. Annual income of educators in Lempiras (2001).



Improvement of self-employment

The figures below show that there was a general falling trend towards labour sales outside the community. With the exception of Zone II (Siguatepeque), where the labour sales outside the community held steady at a high level both internally and externally, the overall trend was downwards.

The application of new technologies enabled women and men who previously had to work outside the community to dedicate more time to work-

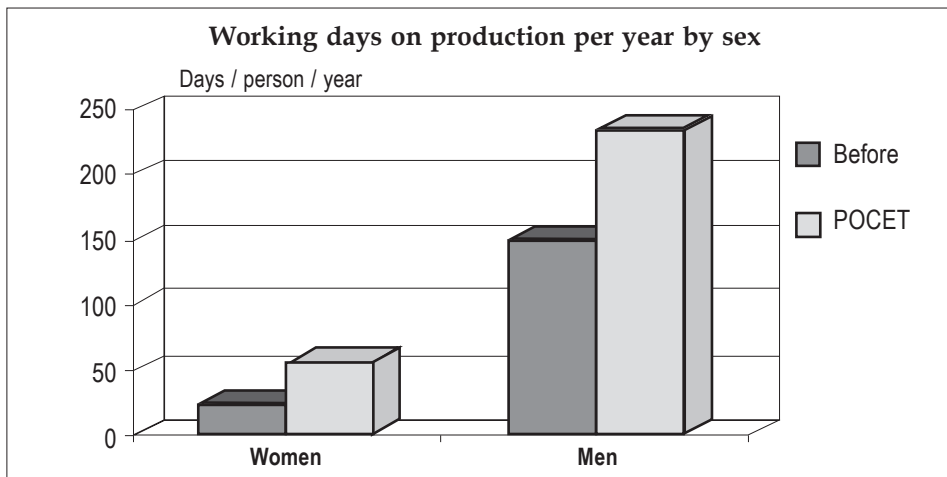
ing their own land. This increase in working days per person on their own productive units contributed to the expansion of the cultivated area.

PERIOD ZONE and total number of group members	NOW		BEFORE	
	Ls * in the community	Ls outside the community	Ls in the community	Ls outside the community
I (64)	10	0	43	8
II (37)	31	21	33	19
III (51)	15	8	27	12
IV (64)	32	1	67	4
V (47)	25	4	41	47

*Ls = Labour sales

There is another aspect to be taken into account. The fact of having more opportunities to work on productive projects generated more worker days spent on productive activities, and when this activity involved an alternative product there was less migration. This is what happened with maize and kidney beans: there were alternative production possibilities like vegetables, and therefore more time was spent on this occupation. On the other hand, coffee producers were more dependent on their only one crop and they were therefore obliged to sell their labour outside the community.

In the chart below it can be seen that the number of hours worked by men and women increased after the project went into operation.



Job creation

From what has been explained above, we can deduce that the execution of productive projects contributes to creating more opportunities for work in the productive units and in the rest of the community. These are not only economic or technological opportunities, they are also of a social nature.

Internal and external labour	Person days	Person days	DIFFERENCE
PRODUCT	BEFORE	NOW	
COFFEE (3 zones. I, III and IV)	111	159	48 (43.2%)
	152	337	185 (121%)
MAIZE (4 zones)	135	123	-12 (-8.9%)
	104	238	134 (128.8%)
KIDNEY BEANS (2 zones, II and V)	34	69	35 (102.9%)
	42	131	35 (102.9)
TOTALS	280	351	71 (25.4%)
TOTALS	298	706	408 (136%)

The non-shaded bands show internal labour and the shaded bands show external labour. At the bottom there are separate totals for the two kinds of labour, reached by adding the figures vertically. The difference is obtained by subtracting previous labour from current labour horizontally along the band.

Thus we have the increase in labour that corresponds in part to the increased investment (greater attention to coffee cultivation). In all products there was an increase in the amount of external labour employed, which is justified by the implementation of new technologies and increased production.

New employment opportunities

When we talk about rural employment we usually think of enterprises that move into an area to reduce unemployment there. It is as if peasants or the rest of society always have to depend on some outside agency for employment, as if rural development is inevitably brought about by some other sector that is better equipped for the task of promoting development.

But opportunities for employment can be generated by the peasants themselves: they can form microenterprises and do well in the informal economy.

FINAL REMARKS

The data and figures given above indicate that there is a very close connection between vocational education/training on the one hand and increased production and decent work on the other.

The manner and the degree to which the application of the education-for-work methodology has improved quality of life for the beneficiaries have been demonstrated. This progress is evident from the fact that seasonal work has decreased, there are now more opportunities for autonomous work, production is more diversified, productivity is higher, and there are better levels of productive organization.

Very poor peasants can learn how to plan their development through organizing themselves on various levels, and gear their efforts to a number of specific objectives among which production is given priority.

These processes have their starting point in people acquiring knowledge about their physical environment and being convinced that it is necessary to overcome obstacles to take advantage of that environment for the benefit of the productive group.

Important aspects come into play like knowledge of the type of soil and the topographical profile of an area, the selection of seeds, fertilizer and pest control inputs, regulating shade, moderation in the use of agro-chemicals, and the progressive incorporation of organic fertilizing agents whose beneficial effects are gradually discovered and valued. All these factors make it possible to plan productive development in the context of sustainable environmental conditions. There can be no doubt that education has played a part in this transformation since basic vocational education and training helped to initiate the process of productive diversification.

Knowledge and the application of new technologies have made it possible for women and men who previously had to work for a wage outside the community to dedicate more working days to cultivating their own land. This increase in person days for their own production has meant more employment for family members and also for outside labour, and it has led to a better utilization of resources, greater labour stability, and the creation of jobs.

In spite of increased production costs, days lost through illness and higher labour costs, the groups have increased the areas they have under cultivation, and what is even more important they have made more intensive use of land, especially for the cultivation of basic grains.

There has been a global increase in the yield and productivity of a number of products: for example, maize yield has risen 174%, coffee 97%, kidney beans 139%, potatoes 33% and chilli 14%. It is important to bear in mind that increased yields involve increased investment in the factors of production.

The POCET/CENET experience showed that development must be endogenously-based and not based on an outside agency doing things for people. No project should be perceived as a donation, there always has to be a commitment on the part of the participants. In this, a crucial effect of education is that the population should not merely manifest their dissatisfaction with what they come to perceive as impediments to improving their life situation, but that they should develop the permanent ability to engage in undertakings to improve it.

The education-for-work methodology has made an observable impact on welfare levels of the people involved in the experience. Education and work are now perceived to be closely connected in all aspects of their lives. It is clear that the stimulus to organized work that flowed from the execution of productive activities and instrumental and occupational education has made a real contribution to improve employment opportunities for the members of the groups.

Finally, the fact that the participants' welfare has improved is clearly shown by indicators that reflect the satisfaction of basic needs as regards food, education, health care, housing and clothing.