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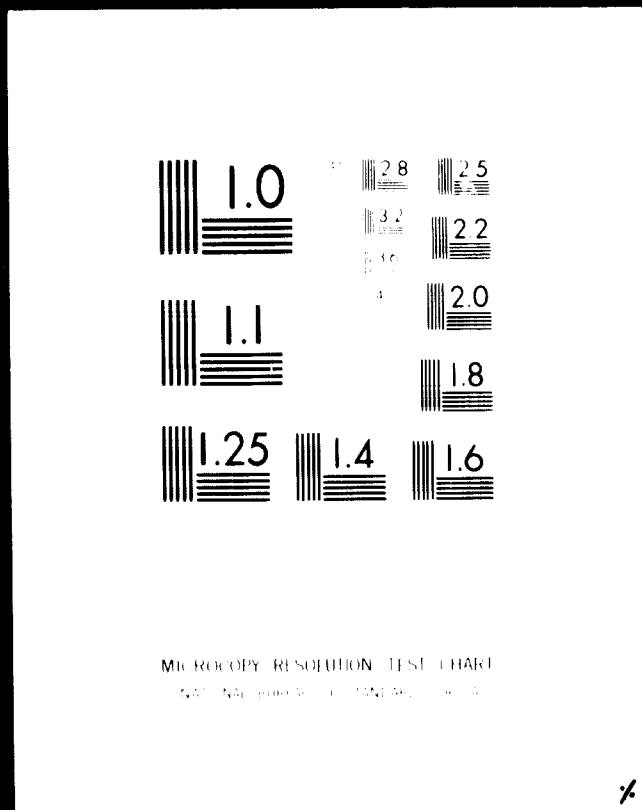
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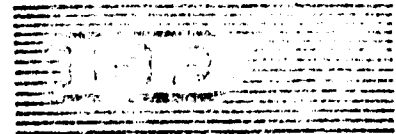


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SELECTION BY INSTITUTIONS OF RURAL INDUSTRIAL PROJECTS *

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Summary

1. There is a growing need to involve the rural areas in the process of industrialization.
2. The most efficient means to do this is through the vehicle of small scale industries.
3. There is a need for institutions, with a rural focus, to know what kinds of projects are "best".
4. What are the alternatives for public institutions in selecting rural industrial projects?
5. One alternative is cost-benefit analysis, but it does not take into consideration public interests such as employment.
6. Social Cost-Benefit analysis does incorporate public interests and gives them weight, but in general it is a complicated procedure for rural projects. It does not relate to policy issues such as the encouragement of public over private, or local over foreign investments.
7. What are the constraints that should be examined in determining what method is best suited to selecting rural industrial projects?
8. Infrastructure: There are three types; physical, institutional and social. Infrastructure can be used as a yardstick in determining the "ruralness" of a locality, and the lack of it used as an excuse for overlooking rural projects. There is a need to generate projects which do not rely on physical but rather on public institutional infrastructure.
9. To avoid failure in selecting rural-based projects, one should be intimate with the social environment in order to determine the areas "economic activity" and receptivity to change.
10. This can be determined by examining whether
 - a) the area shares similar problems and
 - b) it has diversified resources which could be mobilized by a development institution to solve its own problems.

11. In developing projects in economically active areas capital is not the answer, and this can frequently have a negative effect on employment.
12. The preliminary input into rural industrialization should be in the form of software that consolidates the already existing potentialities in rural areas.
13. Once the software has proved effective and there are a number of project options which method is best suited for rural projects?
14. Commercial analysis does not consider public interest, social cost-benefit analysis is too complicated, and using common sense is too vague.
15. Proper weighting should be given to the effect a project has on: satisfying the basic needs, creating employment, redistributing income, and stimulating further balanced industrialization.
16. This can be incorporated in a two tier evaluation process which firstly examines commercial viability and secondly analyzes the project's impact on national policy objectives.

Selection of Rural Industrial Projects

Since much has already been written about the urgent necessity to locate as many industrial projects in rural areas as possible, it is not the intention of this paper to recapitulate or summarize any of the justifications for adopting this approach. Secondly, I have made the assumption that the most appropriate medium through which developing African countries can industrialize their rural areas and evoke greater participation of their indigenous industrial talent, is through what are generally termed as small-scale industries. I consciously avoid any definition of small industries, as the term is so relative and it would be better discussed under an alternative heading.

Bearing these thoughts in mind, I would like to turn our attention to the discussion of a variety of methods that can be employed by institutions with a rural focus, who wish to make selection of industrial projects a more conscious and less risky process.

The Project

When a problem has been identified, whatever its complexity or magnitude may be, a solution exists. This is not merely the statement of a positivist, but rather it reflects the clear understanding that institutions are created to better whatever conditions have generated them. In finding a solution, it is essential to identify activities which will produce certain results and in turn provide an answer or solution to the problem. The instrument which we use to conceptualize this process is called "the project". I think few people could deny that the project has become the focal point of most institutional activity. Everything or nearly everything is related to the project. Although the ascendance in importance of the project is a relatively recent phenomenon, a new breed of professionals have emerged responding to the need by institutions to decide just when one draws the line as

to what is included in each specific project. Those are the project analysts. In our search for perfection in project analysis we have not been content just to know what activities comprise a project but also to know what "real impact" the project has on its stated objectives. It is the misfortune of many institutions, under pressure to demonstrate their effectiveness on a timely basis, that implementation of the project has become the goal and not a means to achieving a stated end. In implementing projects, developmental objectives are frequently and surreptitiously brushed to one side, as they more than complicate the life of institutional staff. Projects which are invented or selected by institutional staff are most often easy to execute and are only distantly related to their stated objectives. They are however artistically prepared and presented in a palatable fashion incorporating all the "key" phases such as employment generation, rural development, and raising the standard of living. Reiterating such worn-out platitudes seems to satisfy their own desire for self-respect among other developmental institutions.

All too many of such projects seem to squeeze through the evaluation process. The fault lies in three areas:

- a) insufficient guidelines on project preparation
- b) the project proposers are consequently unsure of themselves
- c) there is a general lack of consciousness and time on the part of project evaluators, for them to do a good job.

Cost-Benefit Analysis

The investment decision involves, in the broadest sense, a choice between present and future consumption. For example, whether we prefer "jam today or jam tomorrow". Pursuing this analogy a little further, whether we prefer a large lump sum of jam today or a slow trickle over a large number of years in the future. In essence people make this kind of decision almost daily in their own lives saying "Will I tackle this problem today and finish it or will I work on it for an hour a day all week? In this last example the scarce resource is your own time. The effect of an investment whether it is time, money, power or any other resource is to sacrifice this for some return in the

future which you estimate to be higher than your present investment. In determining the costs and benefits in such studies a great deal of skill and judgement is required to correctly estimate market fluctuations. In commercial analysis the process ends with the maximization of profits, net present value or internal rate of return. This method used by itself is not of any assistance to public planners who wish to include in their analyses such factors as unemployment, or the scarcity of foreign exchange. It is for this reason that a more comprehensive system was developed by economists to accommodate such variables. Certainly a more sensitive approach than pure commercial viability is required if one is even going to begin to grapple with the multi-faceted nature of rural development.

Social Cost-Benefit Analysis

The most well-documented technique which public institutions have at their disposal for determining the suitability of an investment is Social Cost-Benefit Analysis (SCBA). The major purpose of this methodology is to safeguard the interests of the public. If all investments were made purely on a commercial basis and unrelated to anything other than short-term profits there would be few roads, water reservoirs, or public health facilities. The advantage that SCBA has over purely commercial analysis is that issues which are important to the community are incorporated and given an economic price tag.

Additionally it is the claim that the market rate for commodities is not always the one which most accurately represents the real price people are prepared to pay. For instance in a country where machine tools are scarce an engineer may be prepared to pay twice the market rate for a lathe and consider himself lucky to have obtained one. Consequently much of the work of the project analyst is involved with reducing market imperfections to a minimum, so that "real" costs and benefits to society can be measured. Factors such as unemployment and scarcity of foreign exchange, which relate to the overall well-being of the nation, can be included in comparing costs with the eventual stream of benefits.

Private vs Public Investment

To ensure that public interests are maintained many Governments have nationalized large industries or public utilities which have significant consequences on large portions of the population or the economy as a whole. This however can frequently be a second best solution as public corporations are notorious the world over for their lethargic bureaucracies and low efficiency in operation. So that what the public may gain in the decision to invest is often lost in the financial deficits produced by these corporations. It goes without saying that Governments, their Ministries, and other para-statal organizations must have the welfare of their citizens at heart, and one method suggested for redistributing benefits is by allowing for greater commercial participation (assuming this will generate greater profits) and then reallocating through taxation the gains derived. The choice of preferring one system over the other must unmistakably be viewed in its perspective of political security and national liquidity. Politicians who draw their support from an impatient constituency naturally have a preference for impressive projects which yield visible results in the shortest possible time. Governments themselves for a variety of budgetary reasons may prefer less risky investments which will generate substantial returns in a relatively short time. A tendency has resulted, therefore, in industrial strategies which encourage the concentration of industry in the hands of a selected and trained few whom Governments know will operate with some degree of efficiency. Seemingly the alternative is to disperse industrial projects with simpler forms of technology among entrepreneurs of lower social classes in less fortunate regions of the country, with less predictable results. The third choice, and one that avoids the question altogether is to channel as much investment as possible through Government-owned para-statals.

The first method provides immediate benefits to a few but has its own consequences of class formation. The second yields few benefits immediately but stimulates the future process of industrialization over a wider and more decentralized economic base. The third is relatively

the safest formula which perpetuates and expands the existing bureaucracy with all its disadvantages of sluggishness.

None of these offers an attractive compromise of present and long-term benefits and this is perhaps where we begin to see the real limitations of SCBA. The final decision, whether it is on a large investment or a group of smaller investments is most often made on political grounds relating either to a single decision-maker's own future or the future of his constituency.

Limitation of SCBA

In preparing the material for inclusion in a project and deciding upon which criteria should be used for evaluation, it is important to know just how far one can go with this type of analysis. In general the method is best suited to situations where:

- 1) inputs and outputs are largely traded and price tags can be fixed for these commodities with some degree of accuracy
- 2) strategic considerations are insignificant, for example the encouragement of private vs public, large vs small or local vs foreign investment
- 3) governments do not use direct control on foreign exchange
- 4) the projects are large enough to justify the costs of the sophisticated analysis required.

Although the analysis is influential in highlighting the major ramifications of a project and may generate a great deal of consciousness in decision makers by asking some searching questions, the method is generally not suitable for small-scale or rural projects. Initially it is much too complicated. It is rather short-sighted to expect rural extension workers, who must inevitably be the ones charged with preparing projects for submission, to be burdened with collecting all the data necessary for establishing the correct values for the inputs and outputs.

Secondly the method must ignore governmental strategies which one must confess are a political reality. For instance the question of private vs public industry and foreign vs local investment are critical ones having enormous ramifications; both are subject to better disputes throughout the world. To some extent the disputes concern economic issues - the effects of equality and inequality for example on levels and patterns of consumption, on bargaining strength, on learning, on local dynamism, on the access to and price of technology and so on. These are matters of political economy. To reduce such important issues with their manifold implications to questions of reinvestment of surplus etc. can do them no justice and one can hardly expect Governments to turn a blind eye to the consequences of favouring one over the other.

As if these two reasons were not good enough, we have to consider the question of size. Economists and development theoreticians have been working for years on how to generate projects which have a marked effect on the general well-being of the majority of the population. I think it is a testament to their failure that so little development has actually taken place in non-metropolitan areas. Understandably it is far easier to work in urban areas where infrastructure is more developed and the people more receptive to change. The concentration has been on large urban projects with the occasional addition of a large rural project. The famous trickle down effect has not altered the accelerating propensity for incomes to become less evenly distributed. The small entrepreneur who represents, to my mind, the most significant force which developing African countries have for servicing the rural population has been conveniently forgotten.

Constraints for Selecting Rural Projects

The excuse for overlooking this latent force is that rural areas lack infrastructure and that rural populations are skeptical of innovations.

Infrastructure

There are three distinct types of infrastructure. The first, which is generally well-understood and relates to the physical installation of roads and transport facilities; communications services; power; water, etc. These are critical for most large-scale industrial undertakings. Secondly, we have institutional infrastructure. The kinds of institutions I have in mind here are: banks and other credit institutions; marketing and distributional outlets whether they are co-operative, state operated or privately owned; and extension or consultancy services. These are necessary for both large and small scale industrial projects. Thirdly, we have social infrastructure which consists of schools, hospitals, public watering points and community recreation centres. These are essential in rural areas for any kind of development whether industrial or agricultural.

Traditionally when selecting rural projects we have tended to view these three types of infrastructure in descending importance from physical to institutional and social. However, I contend that for rural projects one needs to rearrange the order of these to suit the particular conditions of rural areas. For instance, physical infrastructure can be used as a yardstick in determining the degree of "ruralness", and if we go on insisting on high-levels of physical infrastructure for rural projects no significant changes will ever take place. Indeed it is one of the more attractive features of small-scale industry programmes that they are much less reliant on this type of infrastructure than are medium or large-scale ones. In dealing with the problem of infrastructure, I see two clear alternatives, either you invest in it on a small or large scale, or you adapt institutional support to the existing conditions and concentrate on whatever programmes require a minimal dependence on infrastructure.

This is why institutional infrastructure should be considered as the key tool available to governments for operating in rural areas as investments in this kind of support naturally take the form of software and not capital. This kind of institutional service goes beyond the physical and imparts industrial technology at a level compatible with the existing social infrastructure, and in the initial stages works on generating investments which concentrate on the production of local resources for local needs i.e. self-sufficiency.

Therefore we should re-orient our priorities to favor locating projects first where social infrastructure exists, using institutions for generating projects which do not rely on physical infrastructure. Adopting this approach therefore leads us to a point where it is essential to be able to identify the level of social infrastructure, or what could be called "economic activity" and receptivity to change or innovation.

Determining Economic Activity in Rural Areas

When dealing with industrialization in rural areas it is important to be able to determine with some degree of probability whether or not the social fabric surrounding the proposed project will support the industry. A new project in a rural area normally represents an innovation of some kind and we have been encouraged in the belief that rural dwellers are slow to change. I contend that this is a fallacy based on an ignorance of the basic principles of social change which are:

- a) the more integrated the society, industry or individual with regard to social values the more successfully it can respond to change and
- b) change is more likely to occur in heterogenous societies than homogeneous ones.

I am sure all of you have had at least one experience of this phenomenon. For example a small-scale carpentry industry is more likely to be successful and adopt newer methods of production if

- a) the members share a common goal and
- b) they have a variety of skills upon which they can call, in producing the desired goal.

In determining the economic activity of a rural area those of you who have worked in rural extension will probably already have your own methods of evaluating whether it is worth spending your time and energy in a certain village, or with a certain entrepreneur or farmer. A community can be judged on the enthusiasm of its leadership or village headman, by the number of children attending school or whether the community shares a common goal, i.e. they want better facilities for clean water, additional schools or a feeder road, and are prepared to make some sacrifice to achieve that end. An individual can be sized up on

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his past record and present surroundings, and latent management talents can frequently be identified by the order and logical methods with which he operates. These are some of the factors which should be investigated in determining the suitability of industrial projects for rural areas.

After examining all of these constraints one might erroneously come to the conclusion that these are very few projects suitable for rural areas and that the absorptive capacity for industry in rural situations is very low. This is certainly true for projects in which capital forms the major position of investment.

To give you a clearer understanding of this propensity which all of us have to inject massive amounts of capital into rural areas, I would like to cite the example of the rural industrial workshops, which some people claim to be the solution to the low absorptive capacities and lack of infrastructure. These workshops have the following advantages:

1. They are neat, tidy packages which can be delivered to the doorstep of rural areas
2. In some cases they can be administered by local officials who will undoubtedly take pride in them as examples of modernization
3. They have the advantage that friendly donors always find it easier to transfer capital to developing countries in the form of buildings and machinery, as opposed to know-how and technology, which have the disadvantage of having to be adapted to local conditions. Such investment programmes often go under the guise of being labour-intensive solutions to rural industrialization, when in fact they are achieving exactly the opposite ends.

This may come as a surprise to some people and therefore warrants closer investigation.

One of the major purposes of encouraging the growth of rural industrialization is to decentralize industry which has tended to concentrate itself in large urban areas. The motivation for decentralization is both social and economic. By promoting rural industrialization we are attempting to deconcentrate as many future investments as we can, with the understanding that this will create more jobs, distribute incomes more favourably

and stop the rural-urban drift of unemployed. Now what happens when we recommend a rural workshop to achieve this end is quite clearly the opposite effect. What we are doing is applying the same concept of industrial concentration and scaling it down to fit into a rural setting. Each workshop concentrates in it whatever local talent it, or rather its management, can persuade to enter. This devitalizes the areas surrounding the workshops and accelerates the migration of people from the land.

To illustrate more clearly I would like to give you an example of a typical rural workshop proposal which we at UNIDO received. This African LDC was importing hoes from overseas and in a drive to stimulate its own industrial base wished to start producing hoes themselves in a rural context.

The Government then requested outside consultancy advice on how best to proceed. The solution which the consultants proposed was the establishment of one or two rural workshops equipped with all the machinery and foreign technicians necessary for stamping out hoes and producing wooden handles. While this on first inspection may have appeared as a reasonable solution, there were major repercussions. This approach is, what a friend of mine calls the "start from scratch" approach. It assumes that nothing in the way of industrial talent exists in rural areas. It ignores the basic human potential which exists even in the poorest regions of every country.

The consultants had overlooked the fact that there were existing local blacksmiths scattered throughout the country already occupied in the small-scale production of hoes and that there were also local carpenters making hoe handles. By promoting the workshop method one is driving the rural craftsman, the very foundation upon which rural industrialization must be based, out of business. Industry is then concentrated as opposed to being dispersed and rural unemployment rises rather than decreases.

We have been persuaded into believing that the mobilization of capital is the major bottleneck to rural development and that by providing more, we are to some degree immediately solving the problem. Small amounts of capital are indeed necessary but the utilization of this type of capital is not easy and has to be based on a highly motivated

extension service. So the tool for creating greater employment opportunities is the use of more labour i.e. extension services rather than capital. This alternative is simple, less costly and involves little foreign exchange. It works on consolidating the talent that already exists and builds upon it to achieve higher rates of production. This I would argue, is the initial input that should be used in laying the foundation for future industrialization in rural areas.

Evaluation of Rural Projects

So what kind of system can multi-functional or uni-functional institutions use in deciding upon which projects are most suitable for rural areas.

First of all we can revert to strict commercial analysis. This of course has the advantage of being relatively simple, the major questions are ones of profitability, interest rates, present value and internal rate of return. These are legitimate criteria to employ, for when dealing with rural or small industries one is frequently dealing with a co-operative, a partnership or a private entrepreneur, who despite whatever long-range objectives the government has, must concern themselves with their financial security and the survival of their undertaking. There is however not much flexibility in the system, as only the most direct costs and benefits are evaluated. The disadvantage therefore persists that questions which are related to the public interest may never arise in the examination of the projects' worth. By itself, it is therefore generally unsatisfactory for widespread use by a public institution.

Secondly, let us consider the common sense approach. If a country is importing large quantities of soap or knitted wear, it is common sense that there is an investment potential for the local production of the commodity. Another example is the construction of the Tan-Zam railway. When the two Governments concerned were asking for assistance in the building of the railroad, all the potential investors claimed that the project was unprofitable. It was, however, common sense that the investment was not meant merely to generate profits, in fact this motive was clearly secondary to the principal objective, which was political. For an institution to regularize and issue guidance on common sense whilst not a bad idea, would undoubtedly leave room for deciding just

whose sense is more common than another's. Such vague guidelines clearly can not be institutionalized, however, in looking at this approach positively, it can be argued that there is as much bad judgement used as there is bad analysis and that lengthy and complicated analysis is frequently used merely to disguise bad judgement. But in the long run its applicability is limited.

So where does that leave us? Social cost benefit analysis is too complicated, commercial analysis does not consider public interests and commonsense is too vague. What resort does a public institution have for deciding what investment opportunities they should support in rural areas. This naturally implies that there is indeed some real choice to make. One needs to employ a far greater degree of imagination in identifying potential projects in a country geared to the production of primary goods for export, than in a country which already has a diversified rural industrial base, however there is a choice even if the number of options is restricted.

I would propose a relatively simplified two tier evaluation process. The first stage would involve an elementary commercial analysis. It is essential for the entrepreneurs who are involved, to know exactly what the financial consequences of their investments are going to be. The banks will also insist on at least a simple feasibility study indicating such factors as raw materials; labor; overheads; production rates; markets; profitability; cash flows; and loan repayment schedules. This is not a difficult procedure to master and can easily be taught to non-economists. This stage of the projects preparation could be completed by extension workers in preparation for the second tier of evaluation.

At this point a second set of criterias are employed which relate to the overall policy objectives of the country concerned. Relative values could be attributed to such factors as:

- Creation of employment.

This could be related to the capital/employment ratio and would be used as a yardstick to measure the efficiency of capital in creating additional jobs. Care would be given to investigate future ramifications of the project, of increasing or decreasing employment in areas not directly related to the project.

- Distribution of income.

This would involve a description of the major beneficiaries of the project. In Botswana rural project proposals indicate, in a very simplified form, how it would appear what the benefits of a project will be distributed. For example:

Which Group will benefit?

<u>Group</u>	Ranking (1 to 5)
Very Poor	
Poor	
Small Men	
Well Off	
Very Wealthy	

- Self sufficiency.

This can be defined as the general convergence of domestic resources with domestic demand.

What percentage of the project has local content?

What percentage of production is for the local market?

What percentage is substituting for imports?

What is the value added?

- Location.

Again in Botswana the following table is used:

Where do the Beneficiaries live?

<u>Group</u>	Ranking (1 to 5)
Extra Rural	
Rural	
Small Villages	
Large Villages	
Urban centres.	

It is up to each country to determine definitions between how large and small a village is.

Are the beneficiaries sedentary or nomadic?

- Stimulation of industrial process.

What degree does the project contribute to sparking off future industrial projects? Are there any linkages envisaged or evident, i.e. ancillary industries?

- Social environment.

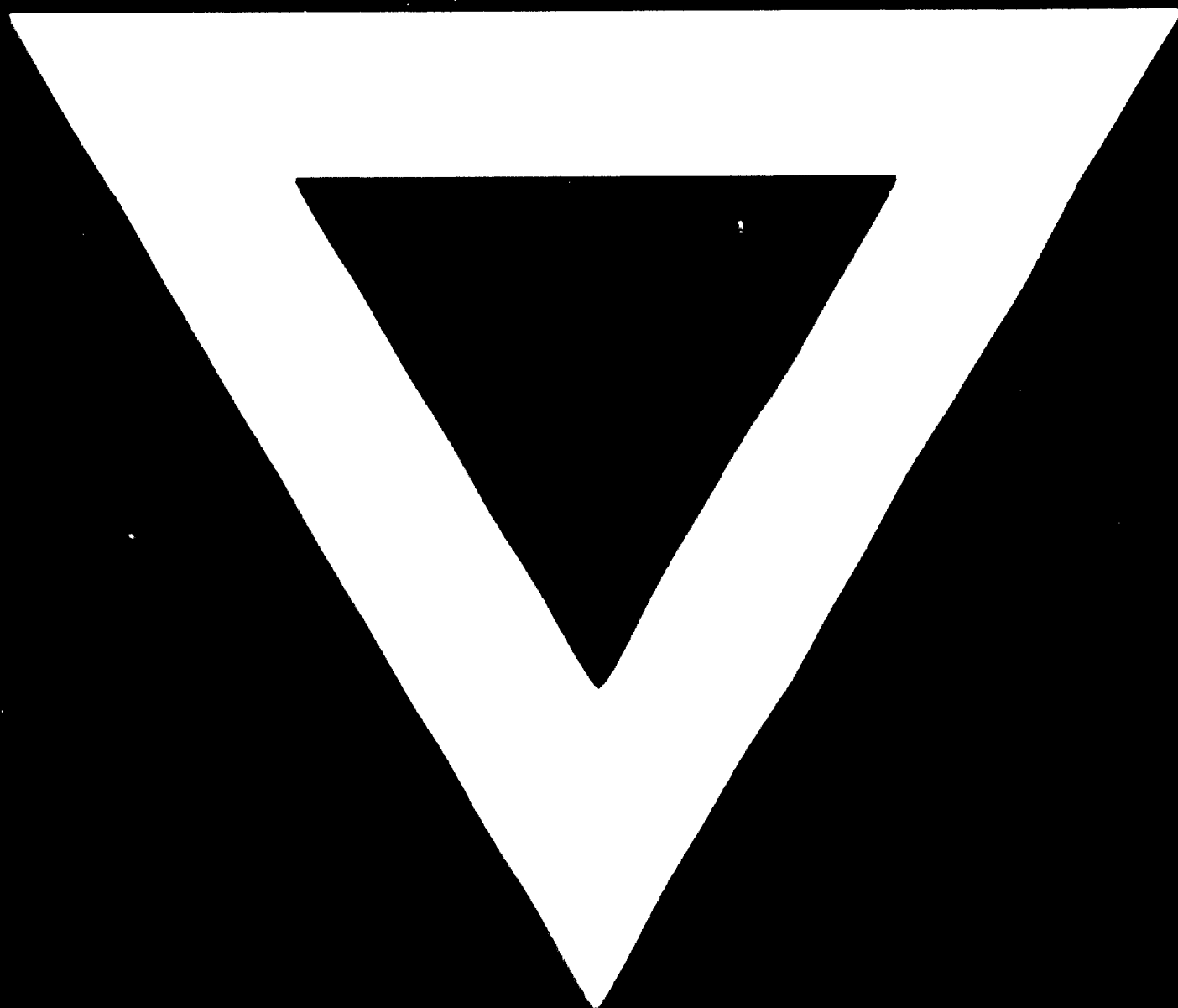
How much does the project contribute to improving the quality of life?
How does the project relate to rural-urban migration? Does it contribute to the encouragement of participation of greater numbers in the decision-making process?

In opting for such a system greater attention is placed on the projects which contribute to satisfy the basic needs of education, health, employment, clean drinking water, public transport as well as food, clothing and shelter. To satisfy these basic needs there must be an interplay between local initiative and national guidance. Industrial extension workers should be given guidelines through manuals and seminars to clearly illuminate what the national priorities are. This will facilitate the extension workers' job in generating, assisting and selecting projects which are most likely to contribute both to the achievement of national goals, as well as satisfying some of the fundamental requirements needed for raising the standard of living of the rural poor.

Such a method would allow planners to more accurately measure the impact of a project and would create an awareness in decision-makers as to where the benefits of projects are really going. In doing this there should be an ever-increasing move towards decentralization in decision-making and greater popular involvement in project preparation. This will eventually ensure a more successful selection of rural-based projects for industrialization by public promotional institutions.



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