### EDUCATION AND MANPOWER PLANNING: THEIR COMMON TARGETS

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#### 1. The Manpower Factor in Development

During the last two decades or so, developing economies have directed much attention to physical capital formation as the main instrument of national development. Yet, the production possibilities of these physical resources are not maximized without the effective combination of adequate — qualitatively and quantitatively — manpower resources. Further development plans have overlooked the manpower context and the critical need for planning the availabilities of such resources given national objectives. Manpower is often described in terms of employment generation, without defining the manpower development strategies to attain such manpower availabilities.

#### 2. Education in Manpower Development

Education is the main instrument for generating the productive human resources. Recent developments in national planning have begun to stress the social components of national development plans. Accordingly, more and more attention is being directed to education and manpower development strategies. This seems to be manifested in the ferment that sweeps developing and developed economies alike, for an educational assessment in particular, and for human resource assessment in general. Manpower planning and educational planning have become critical activities in total national development planning. There is clearly a set of common targets to both.

## 3. Defining the Manpower Problem

The manpower problem can be defined simply: what the requirements are — in both quantity and quality — for manpower resources, and what development strategies and programs are to be implemented to meet these requirements. The educational problem can then be defined in terms of what educational programs are to be implemented to attain the quantity and quality objectives set by the manpower requirements plan. A corollary problem is therefore what approaches or strategies are to be adopted to successfully implement such educational programs.

The planning requirements, therefore, call for the determination of quantity in all its relevant categories — by industries, by regions, by occupational groupings, etc.; and the determination of quality, that is, in terms of the specifications of skills by levels and by relevant categories.

#### 4. Common Targets for Manpower and Educational Planning

The common targets for both manpower planning and educational planning are easily delineated when taken in the context of national development planning. To attain the manpower objectives set in the development plan is to articulate manpower and educational planning with national development planning. For some countries, in fact, the difficulty of formulating a manpower and educational plan is due to the absence of a national comprehensive plan from which manpower plans and educational plans can derive their own consistent objectives.

One clear requirement for purposes of planning is a national assessment or survey of both manpower and educational needs that will establish the basis for both short- and long-term needs, and, therefore, generate the guidance for the formulation of strategies for manpower and educational development.

From this assessment it is then possible to derive projections of the basic and common manpower and educational planning variables, such as the types and mixture of skills required and the magnitude of such requirements, and accordingly, the investments required for manpower development programs. Specific educational planning variables — such as the type and intensity of curricular emphasis, the nature and utilization of educational technology, the determination of teaching quality — can then be projected and planned.

# 5. The Problem of Articulation of Manpower and Educational Plans With National Development Plans

It has already been cited that the formulation of relevant manpower and educational plans can be done, if there is a comprehensive national development plan that specifies the development input of education and manpower. Accordingly, operating or performance targets for manpower and education can be set. This has of course been one of the most difficult aspects of planning — the formulation of operating objectives that make possible the identification of common targets between manpower and education.

The operationality of objectives will enable planners and policy-makers to determine what are feasible and non-feasible objectives, since operationality requires quantification of such objectives, and the specification of strategies and the investments required to attain such objectives.

Thus, the manpower plan will specify a shape of manpower pyramids that indicate the levels and dimension of skills requirements. Educational planning will then derive its own pyramid that specifies the levels of education, and their corresponding dimensions as these are consistent with manpower targets. Thus, the educational planner knowing the magnitudes and quality of high-level, middle-level, and lower-level manpower can indicate the specific inputs of elementary, secondary and higher education levels. The identification of skills mix will enable the planner to pinpoint the scope and range of educational programs in such fields as agriculture, engineering, commerce, medicine, etc.

Informal education as an instrument of manpower development can then be described in terms of its share of such a development responsibility, in addition to defining the coordination with formal education.

## Educational Planning: The Manpower Requirements Approach

Educational planners have adopted alternative approaches or a combination of them in formulating an educational plan. Among the more popular approaches is the manpower requirements approach, which requires the determination of quantitative and qualitative targets as called for by development plans. As already noted, this approach calls for an adequate manpower requirements assessment from which current and projected manpower needs can be determined. This is of course a most formidable task and very few countries have come up with such an adequate study. In addition, this approach does not give an indication of the efficiency of investment utilization by a measurable rate of return.

However, this approach offers the benefits of an integrative perspective in planning, clearly establishes the relationship between education and manpower, and accordingly, identifies common targets in the planning for both.

It is of course expected that educational planners consider a combination of approaches to arrive at a realistic and feasible manpower and educational plan.