

THE FATE OF THE DEVELOPING ECONOMIES

By: F.W. Mtaño\*

It has become a Universal law now that for any country or region to develop, it must produce more than what it consumes in order to generate an investible surplus. The pattern of production capable of sustaining rapid economic growth differ from place to place depending on the environmental factors and the natural resources available. A dynamic industrial growth is a prerequisite for and cause of, rapidly rising productivity in agriculture, although it does not necessarily follow the other way round. Modernised agriculture is essential for growing industry.

When one looks at the industries already set up, and those springing up in the developing countries today, one finds that they are mostly based on food processing or simple assembling of machinery already manufactured from another industry, in most cases situated in a foreign country. Fertilizer with metallurgical industry devoted to the production of agricultural implements and machinery could significantly be the right type of industry to start with. This would promote mechanization in agriculture and in areas not quite densely populated, reclamation of virgin land. The final result would be increased and better quality production of farm produce. With enough and constant food supply, the urban workers' security is ensured, and their morale to even work harder is stimulated. Thus new industries can then be established. These industries should first of all be based on the consumption of the available natural resources as raw materials.

The vital role of industrialization should be planned so as to ensure that a harmonious agricultural development is integrated with planned industrial growth. Utilization of raw materials (farm products) and the by products should be emphasized. In this way, the farmers will be ensured a constant price for their products. If the farmers earn more, they create an increased market for the industrial output.

Heavy industries based on iron and coal, or oil are also important for the development of the countries, if they are locally obtained. For a country or a region to develop her iron deposits or set an iron and steel industry economically, some points have to be looked into.

First of all, the industry should be constructed in such a way that production costs and running costs are at a minimum. This is more so, if local ore resources are available, and cheap power for coking (coal is needed). Converting iron into steel (coal or cheap electricity supply) is beneficial.

Secondly, cheap transport facilities are inevitable. Iron and steel is very dense, as a result, efficient railway or road transport is required to carry the products from the industry to market.

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Third, and a crucial one too, is the size of the available market. By knowing the size of the potential market, one can actually recommend the size of industry to be set up. It would be uneconomical to run such a complex below full capacity due to lack of markets. Moreover, once the blast furnace is on, it can be kept running for some years without closing down for maintenance and the such.

A very reliable market for the iron could be locally obtained by setting up other engineering industries which would use the iron for the production of other iron goods to satisfy the home market. Another question arising is as to whether a single developing country can do this all along. Bearing in mind that most of these countries do not have enough manpower, technicians, engineers and the capital for the initial 'go', one asks himself where could that come from. The solution might be a socialist planning, getting the right people by educating your own cadres, not necessarily within the country if facilities are not available, and utilize them for the revolution. Should more cooperation be achieved between the countries themselves, development activities could be planned at a continental or regional level, ensuring better natural resources facilities and a bigger market for the products. Pritiation of positive action towards regional or continental unification is imperative if dynamic economic development is to be attained. It does not have to start between a nation and a nation. It can very well start between people of some professions like doctors, lawyers, or Engineers. How would you feel in the presence of "The Association of All African Engineers?"

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#### NEW DIRECTIONS IN ENGINEERING COMMUNICATIONS

By: H. Berenice McKague\*

Very few engineers, if pressed to think about the professional contribution made by their training in language and writing, would underestimate its importance. A number of engineers have told me it was the single most important aspect of their professional preparation. In the cases I am thinking of, the reference was to 'English' specifically. This is coincidental, surely, for they were English-speaking people working in a totally English-speaking environment. I am almost certain the German engineer working in a totally German-speaking environment would place the same emphasis on his German-language preparation, and so on ad infinitum.

The rationale for this language emphasis seems to be that it is imperative for an engineer to issue clear, precise, and thorough communications which cannot be misinterpreted - resulting in costly errors.

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