CLASSIFICATION OF COUNTRIES

FOR

INTERNATIONAL DEVELOPMENT PLANNING:

A QUANTITATIVE MULTIDIMENSIONAL APPROACH

by

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ABSTRACT

International organizations commited to the development of many countries are faced with the problem of identifying the group or groups of countries which should be given high priority in its development activities. Current approaches in grouping countries generally make use of only a single or a few development indicators (e.g., GNP per capita) as basis in grouping countries according to level of development; in many cases, qualitative assessment is resorted to by the analyst or planner, who more often than not, has his own preconceived notions about countries.

This research study proposes an objective, systematic and multidimensional approach, which makes use of cluster analysis algorithms and complementary statistical techniques, to determine distinct classification or grouping of countries based on as many development indicators as thought relevant. The choice of development indicators to be included as variables is dictated upon by the interests of the development agency, which in this study is the Economic and Social Commision for Asia and the Pacific (ESCAP). Euclidian distance has been used as the measure of similarity and subsequently, as a relative measure of socio-economic development, given a reference group of developed countries. This approach does not require assumptions as to what should be the ideal development indicators of developed countries but only requires that actual developed countries in the sample be identified beforehand. The distance measure is further taken as indicator of "typicalness" and dispersion of countries in the group. Group characteristics are inferred from the means, which in fact, are the cluster centroids used as reference points for measuring between-cluster distances.

The results of the analysis suggest that there are five (5) distinct groups of countries in the ESCAP Region, rather than just three (3), known as developed, developing and least developed countries in ESCAP and other U.N. agencies. In both classifications, the developed countries and theleast developed countries form distinct groups. However, the classification derived by cluster analysis refines the broad middle group of developing countries further into three; one group already closely similar to the developed group in many aspects, another group relatively nearer to the least developed group, and one group lying right in the middle of the middle layer. The analysis also directs attention to possible misconceptions that could result from an assessment of developing countries based on just a few development indicators.

This study shows that, with a novel interpretation of distances, centroids and other parameters, cluster analysis can be used as an aid to international development planning.