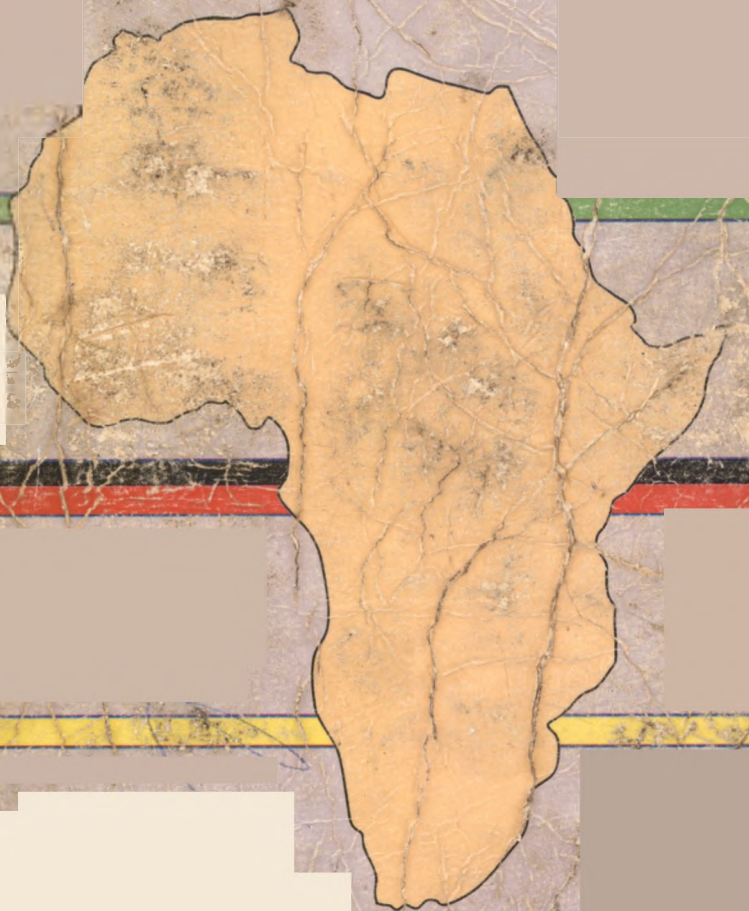


# **The Human Factor Approach to Development in Africa**



**Edited by**  
**G. Chivaura      and      Claude G. Mararike**

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Publications

Chapter Thirteen:	The Human Factor: Tourism and Development <i>Francis Adu-Febiri</i> .....	157
Chapter Fourteen:	The Human Factor and Structural Adjustment Programmes <i>Anders Närman</i> .....	171
Chapter Fifteen:	The Human Factor and Effective Management of Capital and Technology <i>Harold Harder</i> .....	182

**PART FOUR: THE HUMAN FACTOR AND LEADERSHIP**

Chapter Sixteen:	Leadership and Accountability: Lessons from African Traditions <i>John Nkomo</i> .....	191
Chapter Seventeen:	Leadership and Corruption: Impact on Human Factor Development <i>Dumiso Dabengwa</i> .....	198
Chapter Eighteen:	Human Factor Decay and Underdevelopment <i>E.E. Uwakwe</i> .....	201

**PART FIVE: THE HUMAN FACTOR: MEDIA AND POLITICS**

Chapter Nineteen:	The Human Factor, Media and Politics in Southern Rhodesia (Zimbabwe) <i>Claude G. Mararike</i> .....	211
Chapter Twenty:	The Human Factor and Conflict in Post-Cold-War Africa <i>Admore M. Kambudzi</i> .....	221
Chapter Twenty One:	Regional Co-operation: Lessons from African History <i>Witness P. Mangwende</i> .....	229
Index:	.....	235

# The Human Factor and Effective Management of Capital and Technology

Harold Harder

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## Introduction

It is commonly supposed in contemporary analysis that economic growth is the main ingredient necessary for the development of a region and that the primary engines of economic growth are investment in capital and technology (The Economist:23-25). The growth model itself has not been well understood and, unfortunately many who have tried to follow it have found that it did not give the desired results. Usual assumptions are that to achieve development, economic growth must be achieved, and this will happen as the result of investment in capital (including human capital), and technology. Attempts to quickly expand capital have often involved obtaining foreign loans under the assumption that this would bring growth and permit easy repayment of the loans and extra capital that would bring further growth. Often, however, this approach has brought the bondage of debt that has been a burden, especially for the poor, who may not have benefited from the loans.

So also, it has often been assumed that technology, the other ingredient for growth, could be imported or transferred to less developed regions from more developed regions where it was available. This would bring growth and a better and easier life for many, especially if training in the operation of the technology were included. Often, experience has been the opposite. People have moved from their places of subsistence to benefit from new employment opportunities generated by new technology, only to come to the place of having nothing and experiencing poverty worse than before (Lapierre, 1985).

The Human Factor (HF), however, has often been neglected or ignored as a factor essential for healthy development. When a society changes from being a subsistence society to an industrialized society, more than new capital (physical and human ) and more than transferred technology are required. *But is the HF important for technology and money? Are these not independent of human values? With capital and technology comes power, hence the effect of technology and capital depends very much on the HF, since the HF influences how power is used.*

To understand the situation better, let us contrast two societies under very different economic and technological conditions. Heilbroner (1993:Chapter 1), contrasts societies in terms of dependency and relationship. Let us consider these factors by comparing a subsistence village and a highly industrialized society. In a subsistence or small scale economy, there is considerable independence and ability to cope on one's own. Furthermore, transactions occur between buyer and seller, or with a trader, based on relationship and understanding of who is trustworthy and what each person's responsibility is within the society (Grabowski: 49-69).

An industrialized society on the other hand, includes a much more complex set of interactions and greater interdependence. It includes a much larger flow of money through a banking system and maintenance of technologies, both physical, and financial. These systems require a different HF to operate them effectively. Moving from a subsistence to an industrial economy without development of the requisite HF leads to potential disaster. Even technology requires integrity, a HF characteristic. A skilled person without integrity can cause more problems than an unskilled person, because he is in a position of power which the skill provides. For example, if I have the skill to repair an automobile that you need to use, and you do not understand its operation, I am in a position of power to provide good service at a reasonable price, or to provide poor quality service, especially if competition is limited and you have few alternatives.

### Capital and technology

Let us consider again the picture of two societies functioning at vastly different technology levels. Compare a traditional subsistence society and a modern with an industrialized society. These could be in the same place, separated in time, or at the same time, separated in space. The contrast was well illustrated to me recently when I visited a village on the island of Sulawesi in Indonesia, then a few days later, visited Singapore, an industrialized commercial city.

It has been noted that in a subsistence society, people have a high level of independence and self-sufficiency. As Heilbroner (1993: Chapter 1), explains, many are able to function adequately on their own for a considerable length of time by growing their basic food requirements, or gathering foods from their environment. They also know how to provide for themselves the basic needs of housing, clothing and transportation by using what is present in their environment. A society of just a few hundred people can be essentially self-sufficient, producing their food and the few other commodities they need for their living. This also means that their levels of exchange, buying, selling or trading, are usually quite direct. The buyer and seller often know each other and each other's families, and can depend on relationships and personal knowledge to act as guides for most transactions necessary for daily living.

Take the example of the village in Sulawesi that I referred to. In this village the money exchanged is minimal. People grow their own basic foods such as rice, fruit and vegetables. If a villager does not have a particular item he or she wants, say a papaya, he or she may not find it in the marketplace, but if he or she asks a relative or neighbor, they will probably willingly give him one that they have. However, the gift incurs an obligation. When they also need something he has, he is also expected to help. Even the rice does grow rice for himself alone. If he or she has a good harvest of rice, he or she will provide for himself or herself and his or her family, but will also be expected to share with relatives or others from whom he or she may have borrowed earlier, or who are now in need and, therefore, wish to borrow from him or her. Little will be left to sell, and that will often be sold at a low price, though he or she may later need to buy at a higher price. This system is effective for survival. Most people are able to survive. But the system makes it difficult to build up capital for investment. It tends to act as a disincentive to accumulate capital for investment in technology.

Industrialized society, on the other hand, depends on a much more complex set of relationships and dependencies. Each person depends on thousands of people. Each individual does his or her job faithfully and would have great difficulty surviving on his or her own. Few people in highly industrialized society are able to produce their own food or repair the machines on which they depend. Witness the frustration of a person trying to use a computer, whose software is simply 'not doing what is expected'. The error may be only one keystroke, but without knowing what that is, there is *nothing* that person can do to make the system operate. How often have we said in frustration, 'I thought computers were supposed to make life easier!'

Industrialized society depends on a complex set of relationships among many contributors, most of whom do not know each other and, therefore, cannot depend on 'relationships' to make a smooth operation. For example, I may have no human relationship with the person who soldered the wire incorrectly in the computer which I am trying to use. The computer, therefore, is rendered useless by that mistake. Furthermore, my knowledge of computer hardware may be too limited to identify the problem. As a result, all I know is that this piece of machinery does not work correctly and that I will have to rely on help from others.

### Money exchange relationships

In subsistence society, little money is exchanged. In the Sulawesi village, I may not find a papaya to buy in the market, but if I ask someone who has a papaya tree, her or she may give me one. I also grow my own rice, vegetables, keep some chickens and own a few other items for daily survival. I only buy a few items at the market, and the market typically has only a limited range of items available for purchase even if I had all the money I wanted. The land was passed on to me from earlier generations. For transportation, I would walk, ride a bicycle, or maybe, a motorcycle and occasionally travel to a larger town by local transport. So, little money is needed for daily living. Yet life could be quite complete and satisfying even though the GNP per capita would be low.

In an industrial society, the exchange of goods and services is much more monetarized. With a much greater division of labour and responsibilities, there is greater dependency on others and on the use of money as a medium of exchange for goods and services. I buy my food (often partly prepared), my clothing and my means of transportation needed daily to get to my place of work. This greater use of money goes along with a greater division of responsibilities, so that a few people have a great deal of control over large amounts of money. If these people lack honesty, integrity, and other essential HF characteristics, there is great potential for abuse. Even if a person begins with good intentions, when the amount of money that person controls is many times greater than his or her personal income, or even his or her personal assets, the temptation becomes great to increase personal gain from this money which lacks a personal 'face'. If there is also lack of adequate checks and balances on the person's activities, problems easily arise. Therefore, building the HF becomes especially important. A person, may be a leader in a society, or someone who has obtained greater education than others, or control over a particularly desirable technology, gains power over others in his society.

With power comes the need to use it responsibly and the potential to abuse it by using it selfishly at the expense of others.

Another way that abuse of power may arise is by trying to continue with the old view of relationships, while holding newly gained power resulting from control of finances or technology. This may occur by providing opportunities for highly paid employment or other benefits of new money or technology to relatives, while withholding opportunities from others who are not of the family, even if the new source of income was to be for the common good rather than a personally held asset. A person in a high level position in a public corporation or government may find it convenient to give job opportunities to relatives rather than to others. If the relatives are capable and reliable, all may be well, but when incompetent people are appointed because they are relatives and need to be rewarded, rather than because they are suited for the job, problems are likely to arise. Another question is one of discipline. Will it be possible to discipline a relative if that relative does not do the job appropriately, or can that employee become negligent in his or her work because of the relationship?

What I am trying to show is that the difference between a subsistence society and an industrialized society is more than the difference of technology that society uses. There is a fundamental difference in the way each society operates and functions socially, not only economically. If now, a subsistence society tries to become industrialized quickly, by simply importing capital and technology, the HF may not be ready to deal with the changes. The HF must also be developed to deal with the new social structures that result or become necessary.

Control of technology and money gives power. Use of power demands responsible action for the good of others. Therefore, development of the appropriate HF becomes critically important as technological development and development of monetary systems occur, otherwise the potential for abuse that is, use of power for self-aggrandizement and enrichment at the expense of others, becomes great. For example, money borrowed to develop an industry which failed becomes debt which must be repaid, often at the cost of structural adjustment programmes which especially burden the poor and powerless who have not even benefited from the technology.

To improve technology, it is usually most successful to begin at the stage where a society or a person is and make small changes they can adapt to and benefit from. An example of this is a power pump, (Harder, 1995) a hand-operated water pump in Bangladesh for irrigation purposes. Earlier attempts to organize farmers to co-operate in motorized pumping schemes had been very disappointing. It was appropriate because it fitted the setting; rock free deltaic soils that permitted easy installation of a tubewell, small farm plots requiring small amounts of water, low cost, and plenty of labor available in the family. It has been used by many for about 15 years now (currently the number of users would be in the thousands). I believe that the contribution of the foreign based non-governmental organization that developed and introduced it was significant because, rather than giving away pumps made elsewhere, they developed and produced this pump in Bangladesh and let the farmers absorb the risk of testing and demonstrating it to observe and evaluate whether to buy it or not (Harder, 1995 b).



There now are several copies. This shows widespread acceptance of the idea. The power pump idea has subsequently been taken to many other countries including those in Africa.

### **Developing the HF**

If the HF is so necessary for progress in a society, what can be done about the problem? How can the HF be developed? Must we give up in despair and say that it is hopeless? Must we conclude that societies are simply different, and those who lack the requisite HF for the functioning of an industrial society will simply have to be without it? Will the poor always be poor and the rich always rich? I believe that it is possible to develop the HF, and that it is also possible for a society to witness the decay of the HF and find the deterioration of their strength occurring.

First, I believe, it is necessary to realize that the HF is necessary for development, and that without it, attempts at development may, instead, lead to ruin and severe polarization of a society into those who are rich and those who are poor. It may seem simplistic to say that one must realize the need to develop the HF, but unless there is *willingness to acknowledge the need and embark on the path to improvement, progress will not happen of itself. Those needing change must desire it and be committed to it, change cannot be imposed from outside.*

Secondly, the source of change must be a change of attitude. In the long run, it will not be sufficient to blame others, but it is necessary for each person to take responsibility to do what they can to bring about positive change. External help and even external controls may be necessary and helpful for a time, but real change must be from within (Romans, Chapters 6-8). I submit that this comes through the right relationship with oneself, with one's fellow persons and with God. If I recognize that the power I have, however small or large, is given to me as a responsibility to be used for the good of others and the honor of God rather than for my own aggrandizement, privilege, or right, then I will use it as effectively as I can for the good of others in building society.

Thirdly, what can be done to enhance HF growth in a society? We can teach others by word and example. This happens as parents train their children, 'Fix these words of mine in your hearts and minds. Teach them to your children. Talk about them when you sit at home and when you walk along the road, when you lie down and when you get up (Deuteronomy, 11: 18-19 and 11: 13-21).' As these matters become part of our thinking and dreaming, as we talk about them with our children and our friends, as we teach their importance to others, others will become aware of their part in changing society. It is important to teach our children, but adults also can change. However, I believe the above indicates that it takes time, consistency and commitment to truth to bring about positive change.

Are there examples? I will give some Asian examples with which I have become familiar, through observation, experience, and reading. Some examples from Bangladesh where I lived and worked for three years, are the Bangladesh Rural Advancement Committee (BRAC) (Lovell, 1992), the Grameen Bank (Wahid, 1993)

and the rural savings programme run by the Mennonite Central Committee, the organization I worked with in Bangladesh as director of the Mennonite Central Committee programme from 1981 to 1984. Some of these have become well known as examples of dealing with people in groups to teach savings and provide loans for endeavours that will improve people's financial situations. They do this by forming groups of people and teaching accountability to each other for their use of finances. This method teaches the value of accountability and initiative which are of fundamental importance to being able to improve their situation. Another interesting feature of this method is that it brings the young educated class and the poor in their society together to build the country's future. Too often, these two groups are working against each other. With effective development of the HF, a society will be able to use new technology for the good of many.

### Conclusion

Differences between subsistence and industrialized societies are more than the money and the technology involved. Increased money and technology bring with them power and the question of whether that power is distributed among the people or concentrated in the hands of a few who will seek to use it for their own aggrandizement rather than the good of many.

New conditions and relationships demand appropriate development of the HF, with the characteristics of honesty, integrity and commitment to work for the common good rather than selfish gain. These qualities are also important in traditional subsistence society where workable relationships and structures have been developed over long periods of time. When the monetary and technological environment changes, it is important to also develop the HF to deal effectively with these new structures and the power they bring, for the common good. Technological change will come, but with it the HF must be developed to deal constructively with the changes that occur. These HF characteristics of honesty, knowledge, diligence, integrity and others are important in all societies. Lack of positive HF characteristics can be devastating to social progress. Development of the HF cannot be neglected if wholesome development is to occur.

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