WHY SMALL IS STILL BEAUTIFUL?

Why Small is Still Beautiful?

E.F. Schumacher and His Economics in Dangerous Times

Raza Naeem

COMSATS Institute of Information Technology

Lahore
Introduction

E.F. Schumacher published his little masterpiece *Small is Beautiful* in 1973, nearly forty years ago, at a different time and age when it was still possible to think about an alternative to the dominant capitalist system in the form of Soviet communism, and when the only serious shocks to the world economic system could occur in the form of rise and fall in the price of oil (1970s and 1980s). Almost forty years after the publication of the book, the world is confronted by an acute financial crisis, stemming from the Wall Street Crash of 2008-2010, followed by a worldwide recession that has affected some of the most robust economies in a profound way. As such, the once invincible paradigm of neoliberal capitalist globalization enacted through the Washington Consensus can no longer be taken for granted and even mainstream economists\(^1\) are now admitting that serious questions have to be asked about the vitality and usefulness of such a paradigm as well as possible alternatives. Apart from the usual references to Karl Marx and John Maynard Keynes, a number of long-neglected, heterodox economists\(^2\) have now made a comeback into mainstream discussion of how to deal with this crisis in the West. In the centenary year of Schumacher’s birth (2011), the paper argues that there is an urgent need to revisit the core arguments he made in *Small is Beautiful* regarding economics and its purpose. The paper revisits and summarizes the main arguments Schumacher made in this work regarding the problem of production, Buddhist Economics, the question of size (of a firm, company or organization), the proper use of land, technology with a human face, social and economic problems calling for the development of intermediate technology in the developing countries and

\(^1\) Among them are Joseph Stiglitz, Jeffrey Sachs and Paul Krugman.
\(^2\) One can cite Karl Polanyi (the ‘other’ Karl), Joan Robinson, Thorstein Veblen, Joseph Schumpeter & of course, Schumacher.
ownership. The paper aims not only to critically reappraise and engage with Schumacher’s important arguments but hopefully also reintroduce them to a younger generation of economists and management and financial experts and executives here in Pakistan; and to analyze Schumacher’s arguments in the context of Pakistan’s development strategy especially the New Growth Framework\textsuperscript{3} recently issued by the Planning Commission of Pakistan. It is hoped that this paper would contribute to serious discussion at the highest policy levels, especially in Pakistan, of the value of moving away from conventional thinking that has historically shaped economic policy in the country and towards more diverse, if unconventional alternative ways of economic thought (as per Schumacher’s arguments), living as we are in dangerous times, both in Pakistan and the industrialized West, both economically and politically.

\textit{Revisiting Small is Beautiful}

Schumacher begins the book with an analysis of the ‘problem of production’\textsuperscript{4}: he notes that one of the most fateful errors of the age is the belief that the problem of production has been solved; and that the most important task for the rich countries now is ‘education for leisure’ and ‘transfer of technology’ for the poor countries. This illusion is based on the failure to distinguish between income and capital; far larger is the capital provided by \textit{nature} and not by man, which is now being used up at an alarming rate. To get off the present collision course, we must thoroughly understand the problem and begin to see the possibility of evolving a new life-style, with new methods of production and new patterns of consumption: a lifestyle designed for permanence.

\textsuperscript{3} This paper evaluates the draft version of the New Growth Framework issued in January 2011.

\textsuperscript{4} Chapter One
One of the more important chapters in the book is on the ‘Role of Economics’.

For Schumacher, the critical question to be asked regarding the same is: What sort of meaning the method of economics actually produces? (p.28) For him, the answer to this question is provided by the distinction between economic and non-economic; the latter implies “failure to earn an adequate profit in terms of money”. This failure logically leads to judgments which are fragmentary and methodically narrow because the economics’ methodology ignores man’s dependence on the natural world i.e. it deals with goods and services from the market’s point of view, not with the origin of the goods or the conditions of their production.

The roots of this misleading methodology lie in one simple fact: that economics is a body of thought derived from meta-economics; the latter can be defined as consisting of two parts: one dealing with man and the other dealing with the environment. Ignoring meta-economics can only lead to more fundamental errors like an obsession exclusively with ‘goods’; and to miss the point that primary goods like non-renewable and renewable are different from secondary goods like manufactures and services. This important distinction has to do with the fact that man is not a producer but only a converter.

One of the most important chapters of the book, and a term which he in fact pioneered is on “Buddhist Economics”. Schumacher notes at the outset that a fundamental source of wealth is human labour. As an economist would see it, for the employer human labour is a cost, while for the worker, it is a disutility. On the other hand, the Buddhist viewpoint associates work with three functions: to give a man a chance to utilize and develop his faculties; to enable him to overcome his egocentredness by joining with other people in a common task; and to bring forth

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5 Chapter Three
6 Karl Marx used the term commodity fetishism for the same phenomenon.
7 He goes on to elaborate this further as the study of man and the study of nature, respectively.
8 Chapter Four
the goods and services needed for a becoming existence. Furthermore, Buddhists stress on two types of mechanization: one that enhances a man’s skill and power; and one that turns the work of man over to a mechanical slave. Buddhist economic planning would be planning for full employment, whose primary purpose would be planning for full employment, whose primary purpose in turn would be employment for everyone who needs an ‘outside’ job. Buddhism is interested in liberation. The keynote of Buddhist economics is simplicity and non-violence. It combines the maximum of well-being with the minimum of consumption. Buddhist economics is the systematic study of how to attain given ends with the minimum means. It tries to maximize human satisfaction by the optimal pattern of consumption; production from local resources for local needs in the most rational (emphasis added). A Buddhist economist would insist that a population basing its economic life on non-renewable fuels is living parasitically.

Another important chapter in the book is on “A Question of Size”. Here he challenges the conventional wisdom that in order to be prosperous country had to be big – the bigger the better; as well as the theory of the ‘economics of scale’ – that with industries and firms, just as with nations, there is an irresistible trend, dictated by modern technology, for units to become even bigger. He talks about the duality (Schumacher’s italics) of the human requirement in that Man needs the freedom of small, autonomous units as well as the order of large-scale, possibly global, unity and co-ordination. He asks a critical question: What scale is appropriate? ; applying it to

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9 Interestingly, for Buddhist economists, women do not need an ‘outside’ job, and the large-scale employment of women in offices or factories would be considered a sign of serious economic failure. What would they make of the numerous female scions of the Bandranaike dynasty in Sri Lanka and of the emerging Shinawatra dynasty in Thailand, both nominally Buddhist countries?

10 Schumacher coined this term after a three-month sojourn in Burma in 1955. He was not the first Englishman to take an interest in Burma, for another prominent socialist George Orwell was posted as a Colonial Officer there in the period 1922-27, the outcome of which was an anti-colonial novel, Burmese Days. Unfortunately, subsequent events in post-colonial Burma did little to repay interest in that country, despite its rulers’ official ideology of the ‘Burmes Road to Socialism’. As such the new pole of an enquiry into the success or failure of Buddhist economics must also now move from Rangoon to tiny Thimphu.

11 Chapter Five
city size, he advocates an upper limit of half a million inhabitants while the lower limit, according to him, depends on factors like accumulation of wealth, which in turn depends upon the type of (city) culture pursued\(^\text{12}\). The obsession with the idolatry of giantism, particularly in matters of transport and communications has led to people becoming *footloose* (Schumacher). In advanced countries like the United States, it produces the problem of the ‘megalopolis’, with the result that the population in the US has polarized into three immense megalopolitan areas. In developed countries like the latter, this phenomena has created dropouts, crime, alienation, stress and social breakdown, right down to the level of a family; while in developing countries, mass migration, mass unemployment and the threat of famine result in a ‘dual society’, without any inner cohesion, subject to a maximum of political instability.

The chapter on “The Proper Use of Land”\(^\text{13}\) opens with the statement that among material resources, the greatest unquestionably, is the land. Land and the creatures upon it are looked upon as *nothing but* ‘factors of production’. However, this is their secondary, not their primary, nature. Before everything else, they are ends-in-themselves; they are meta-economic, and therefore in a certain sense sacred. In our tie, the main danger to the soil, and therewith not only to agriculture but to civilization as a whole, stems from the townsman’s determination to supply to agriculture the principles of industry. A typical representative of this tendency could be found in the Mansholt Plan for European Agriculture. By generally referring to agriculture as one of Europe’s ‘industries’, the Plan obfuscates the principles of agriculture and industry; while the former deals with life and living substances, the latter is concerned with non-living materials and

\(^{12}\) I wonder how much of this unconventional wisdom is reflected in our own policy planners’ vision of ‘creative cities’ as laid out in Pakistan’s New Growth Framework, obsessed as it is with technology, engines of growth, market demand and market-based solutions.

\(^{13}\) Chapter Seven
the elimination of life\textsuperscript{14}. Human life at the level of civilization, however, demands the \textit{balance} (Schumacher) of the two principles, and this balance is ineluctably destroyed when people fail to appreciate the \textit{essential} (Schumacher) difference between agriculture and industry – a difference as great as that between life and death – and attempt to treat agriculture as just another industry. A wider view of agriculture challenges the crude materialist view of it as ‘essentially directed towards food-production’ and sees it as having to fulfil at least three tasks:

1. To keep man in touch with living nature, of which he is and remains a highly vulnerable part;
2. To humanize and ennoble man’s wider habitat; and
3. To bring forth the foodstuffs and other materials which are needed for a becoming life.\textsuperscript{1516}

Agriculture must cling faithfully and assiduously to three truths revealed by nature’s living processes if it is to fulfil its second task:

1. The Law of Return;
2. Diversification – as against any kind of monoculture; and
3. Decentralisation, so that some use can be found for even quite inferior resources which it would never be rational to transport over long distances.

\textsuperscript{14} What would Schumacher have made of the European Union’s elimination of agricultural subsidies and the violations of the Kyoto Protocol? Surely something to ponder about by the participants of the climate change summit held recently in Durban, South Africa.

\textsuperscript{15} As an instructor in Agriculture Economics, this author can testify that none of the so-called textbooks on the subject used currently introduces or makes reference to agriculture in such terms.

\textsuperscript{16} Complementing these tasks are the goals of agriculture: health, beauty, permanence and productivity.
Here again, both the trend of things and the advice of the experts is in the exactly opposite direction – towards the industrialization and depersonalization of agriculture, towards concentration, specialization, and any kind of material waste that promises to save labour.

Another seminal chapter of Schumacher’s book is related to “Technology with a Human Face”. According to Schumacher, technology recognizes no self-limiting principle – in terms, for instance, of size, speed or violence. The modern world, shaped by modern technology, finds itself involved in three crises simultaneously. First, human nature revolts against inhuman technological, organizational, and political patterns, which it experiences as suffocating and debilitating; second, the living environment which supports human life aches and groans and gives signs of partial breakdown; and, third, it is clear to anyone fully knowledgeable in the subject matter that the inroads being made into the world’s non-renewable resources, particularly those of fossil fuels, are such that serious bottlenecks and virtual exhaustion loom ahead in the quite foreseeable future. The primary task of technology is to lighten the burden of work man has to carry in order to stay alive and develop his potential. Schumacher was tempted to formulate the first law of economics (emphasis added) as follows: ‘The amount of real leisure a society enjoys tends to be in inverse proportion to the amount of labour-saving machinery it employs.’ He then goes onto compare the living conditions in advanced countries like the US, Germany and UK on one hand and relatively poorer societies like Burma on the other, based on this law and finds that in the latter, people have an enormous amount of leisure really to enjoy themselves compared to the former, owing to the fact that there is less labour-saving machinery in the latter than the former. The type of work which modern technology is most successful in

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17 Chapter Ten
18 Two observations are in order here: one, I am not sure Schumacher would have had the same opinion about Burma now, given that political and social conditions there began to deteriorate after the military coup in 1962,
reducing or even eliminating is skilful, productive work of human hands, in touch with real materials of one kind or another. He uses the notion of total social time (emphasis added) to make sense of the extent to which modern technology has taken over the work of human hands. Total social time is the time all of us have together, twenty-four hours a day each. He asks how much of this time is actually engaged in real production? It follows that the proportion of ‘total social time’ spent on actual production is, roughly, 3.5 per cent. The other 96.5 per cent of ‘total social time’ is spent in other ways, including sleeping, eating, watching television, doing jobs that are not directly (Schumacher) productive, or just killing time more or less humanely. He then puts the following proposition to students of sociology: ‘The prestige carried by people in modern industrial society varies in inverse proportion to their closeness to actual production.’

The whole drift of modern technological development is to reduce total social time further, asymptotically to zero. Think of the therapeutic value of real work; its educational value. The present consumer society is like a drug addict who, no matter how miserable he may feel, finds it extremely difficult to get off the hook. The poverty of the poor makes it in any case impossible for them to successfully to adapt our technology. Of course, they often try to do so, and then have to bear the more dire consequences in terms of mass unemployment, mass migration into cities, rural decay, and intolerable social tensions. As Gandhi said, the poor of the world cannot be helped by mass production, only by production by the masses. The system of mass production, based on sophisticated, highly capital-intensive, high energy-input dependent, and human labour-saving technology, presupposes that you are already rich, for a great deal of capital investment is needed to establish one single workplace. The system of production by the

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19 One can detect shades of the work of Thorstein Veblen here, especially on the ‘instinct of workmanship’.
masses mobilizes the priceless resources which are possessed by all human beings, their clever brains and skilful hands, and supports them with first-class tools. (Schumacher) The technology of mass production is inherently violent, ecologically damaging, self-defeating in terms of non-renewable resources and stultifying for the human person. The technology of production by the masses, making use of the best modern knowledge and experience, is conducive to decentralization, compatible with the laws of ecology, gentle in its use of scarce resources, and designed to serve the human person instead of making him the servant of machines. Schumacher has named it intermediate technology to signify that it is vastly superior to the primitive technology of bygone ages but at the same time much simpler, cheaper, and freer than the super-technology of the rich. One can also call it self-help technology, or democratic or people’s technology – technology to which everybody can gain admittance and which is not reserved to those already rich and powerful. Schumacher thinks we can already see the conflict of attitudes which will decide our future. On the one side, he sees the people who think they can cope with our threefold crisis by the methods current, only more so; he calls them the people of the forward stampede (emphasis added). On the other side, there are people who seek to return to certain basic truths about man and his world; he calls them home-comers. Let us admit that the people of the forward stampede, like the devil, have all the best tunes or at least the most popular and familiar tunes. You cannot stand still, they say; standing still means going down; you must go forward; there is nothing wrong with modern technology except that it is as yet incomplete; let us complete it. They point to the population explosion and to the possibilities of world hunger. Surely, we must take our flight forward and not be fainthearted. If people start protesting and revolting, we shall have to have more police and have them better equipped20. If

20 Recalling Schumacher’s prophetic words almost forty years later, having more and better-trained police might not be the preferred solution of the growth mandarins anymore, as we look at the Arab uprisings which have
there is trouble with the environment, we shall need more stringent laws against pollution, and faster economic growth to pay for anti-pollution measures. If there are problems about natural resources, we shall turn to synthetics; if there are problems about fossil fuels, we shall move from slow reactors to fast breeders and from fission to fusion. There are no insoluble problems (Schumacher) The slogans of the people of the forward stampede burst into the newspaper headlines every day with the message, ‘a breakthrough a day keeps the crisis at bay.’ And what about the other side? This is made up of people who are deeply convinced that technological development has taken a wrong turn and needs to be redirected. The term ‘home comer’ has, of course, a religious connotation. For it takes a good deal of courage to say ‘no’ to the fashions and fascinations of the age and to question the presuppositions of a civilization which appears destined to conquer the whole world; the requisite strength can be derived only from deep convictions. The home-comers base themselves upon a different picture of man from that which motivates the people of the forward stampede. It would be very superficial to say that the latter believe in ‘growth’ while the former do not. Equally, it would be very superficial to say that the homecomers do not believe in progress, which also can be said to be an essential feature of all life. The home-comers believe that the direction which modern technology has taken and is continuing to pursue – towards ever-greater size, ever-higher speeds, and ever-increased violence, in defiance of all laws of natural harmony – is the opposite of progress. Hence the call for taking stock and finding a new orientation. The stocktaking indicates that we are destroying our very basis of existence, and the reorientation is based on remembering what human life is really about.

already claimed dictators in Tunisia, Egypt and Yemen, and have now spread to Western Europe and even the United States (in the shape of the Occupy Wall Street movement)
Another important chapter of the book talks about ‘Development’.\(^{21}\) It notes the emergence of the ‘dual economy’ in developing countries, in which there are two different patterns as widely separated from each other as two different worlds. It is not a matter of some people being rich and others being poor, both being united by a common way of life: it is a matter of two ways of life existing side by side in such a manner that even the humblest member of the one disposes of a daily income which is a high multiple of the income accruing to even the hardest working member of the other. The social and political tensions arising from the dual economy are too obvious to require description.\(^ {22}\) Development does not start with goods; it starts with people and their education, organization, and discipline. Without these three, all resources remain latent, untapped, potential. Here, then, lies the central problem of development. If the primary causes of poverty are deficiencies in these three respects, then the alleviation of poverty depends primarily on the removal of these deficiencies. Here lies the reason why development cannot be an act of creation, why it cannot be ordered, bought, comprehensively planned: why it requires a process of evolution. According to Schumacher, it is always better only if the general guidelines of a development policy \textit{involving the entire population} are already firmly established. (Schumacher)

\textbf{Pakistan’s ‘New’ Growth Framework}

The New Growth Framework approved by the Planning Commission of Pakistan in May 2011 to give direction to Pakistan’s development strategy has correctly noted at the outset the country’s volatile growth history and falling potential GDP growth\(^ {23}\); also the big challenge

\(^{21}\) Chapter Ten  
\(^{22}\) This chapter contains one of the more effective critiques of the ‘dual economy’ model pioneered in development thinking by W.A. Lewis, for which he won the Nobel Economics Prize. No such prestige was alas reserved for Schumacher himself, despite being the greater thinker.  
\(^{23}\) Section titled \textit{Growth, Investment & Savings: An Overview}
posed by the bulging demographic dividend as it pertains to providing employment for this latter. It realizes the fact that “In the standard neoclassical growth model, growth is determined by capital formation, labour force, growth and changes in productivity. It is fair to say that the standard model is still relevant. The criticism is on how the model is applied.” It is here that the authors of this Framework appear misguided. A realization of the fact that the Rostovian and Harrod-Domar models could not work for Pakistan should have led the current strategists away from a discredited model based on savings, investment and foreign aid and towards a model envisioning a social welfare state for the country or at the most, an economy where the state plays an important role in provision of free health, education, housing and employment to the masses. Instead, what we get is a seemingly ‘new’ model but with the same emphasis on growth and private sector where the role of the state is merely reduced to the protection of public interests and rights, provision of public goods (which are ill-defined in the document), enforces laws, punishes exploitative practices and operates with transparency and accountability. It is also interesting to note how the Framework cites the economic strategies of regional economies to bolster its claims for some legitimacy. However useful looking at the current economic models of these countries may prove to be, one need not be oblivious to how these countries got to where they are, today. Of these Thailand’s green and happiness society initiative harks to the Buddhist economic model already cited in this paper above in the

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24 Section titled Demographic Dividend?
25 Section titled Why has growth been low?
26 Ibid.
27 In fact, the regime of Ayub Khan was obsessed with the Rostovian model of growth, references to which even made it into the former’s speeches while the regime of Shaukat Aziz during the Musharraf era was also similarly obsessed with ‘take-off’.
28 Ibid.
29 Ibid
Malaysia and China followed contrasting models of development, but in both cases the emphasis was on provision of social services like free health, education, employment and housing, and not growth; growth followed much later. What also helped was the fact that both countries had a remarkably harmonious ethnic balance and low or controlled population growth rates, which stand in stark contrast to Pakistan. One can utilize the same argument for India, where the development model only began to change in favor of growth in the 1990s, with trade liberalization and market-led ‘reforms’, after having been a socialist planned economy for the better part of four decades; the fact that India has one of the world’s most robust democracies also favoured it. Again Pakistan did not enjoy the early advantages which India enjoyed in the first few decades after independence – in the shape of the material base for India’s take-off being provided by its socialist economy – nor did it have a lot of democracy in those critical periods. In many ways, the lack of democracy in Pakistan historically can be related to the lack of a coherent national development strategy. The comparison with Bangladesh is more illuminating, especially since the latter has done better than the former in terms of education, literacy, health, population and gender equity, though not growth.

The Framework mentions missing “software of growth” as a reason for low growth in Pakistan. It admiringly cites figure after figure from the Global Competitiveness Report 2009-

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30 Bhutan might be even more of a relevant model for Pakistan at this stage since it has the added benefit of being a fellow-SAARC member. It has instituted an economic model based on Gross National Happiness (GNH) since the 1980s putting the country on a map other than that for enthusiastic mountaineers. This is currently the best-practice case of Buddhist Economics on offer.


32 Section titled What Constrains Pakistan’s Growth?
Why Small is Still Beautiful?

10 to make its case for the same.\textsuperscript{33} However there is no mention of the statistics that really matter for Pakistan and which will be critical to determining the quality of this software in future: namely that adult literacy in Pakistan is still 54 percent, with female literacy just 40 percent, while female-to-male primary and secondary enrollment ratio is just 0.83:1;\textsuperscript{34} life expectancy is 66 and despite child malnutrition at a low level of 38 percent, the under-five mortality rate is 89 per 1,000\textsuperscript{35}. On the Human Development Index, Pakistan ranked at 141 but this was 9 places lower than predicted by its income.\textsuperscript{36} With regards to population, fertility has fallen only to 4.0 (World Development Indicators, 2008)\textsuperscript{37}. In terms of gender equity, Pakistan cores in the fourth and lowest category (“countries in worst situation”, Social Watch Report, 2004); as of 2008, only 60 percent as many women as men were literate – a figure that is little higher in the 15-24 age group.\textsuperscript{38} Also, the enrollment level of girls is less than three-quarters that of boys; male-to-female ratio is 1.05, which indicates gender inequality (higher mortality of girls).\textsuperscript{39}

If we analyze the mantra of ‘growth’ much touted – and desired - in the Framework, it can be seen that PPP-adjusted income in Pakistan is $2,590 (2008). Per capita income grew at about 2.2 percent in the period 1950 to 2000, which led to tripling of per capita income. Then in the period 2003 to 2007, growth accelerated, but declined to about 3 percent in 2008 and 2009 after the global economic crisis.\textsuperscript{40} But it remains to be seen whether the high growth rates sustained in

\begin{enumerate}
\item Statistics are cited for Overall Infrastructure Quality, Transport Infrastructure Quality, Technology and Competition, State of Governance and Education & Innovative Capacity.
\item Todaro, \textit{op cit.} The Framework prefers to look at the Net Enrolment Rate at primary level & the illiteracy level among youth. See section titled \textit{Youth Engagement}.
\item \textit{Op cit.}
\item \textit{Op cit.}
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the past can do so for a longer period of time; there is a consensus that pro-poor growth in Pakistan has been the lowest in the SAARC region. In fact, Pakistan is one of the leading examples of the phenomenon of “growth without development”, as defined by William Easterly, with low social indicators for its income and growth.41

The reforms prescribed by the Framework in the field of agriculture are obsessed with productivity42 and geared towards a view of it as being an industry exclusively geared towards food-production, in opposition to the schema proposed by Schumacher. There are few good proposals like proposing an agricultural income tax but unless combined with real land reforms which reverse a fundamental injustice towards our landless farmers by distributing land among them, they would not yield a sustainable agriculture. The version of the latter preferred by the Framework has little to do with redressing the plight of the landless peasants, in fact they go so far as to giving protection to the landlord in the urban commercial areas.43 In fact in Punjab and Sindh, there are powerful peasant movements now demanding serious land reform and in the long run our policy planners and ruling elite will have to contend with their legitimate demands if they are to create a viable participative development paradigm.44

41 Op cit
42 Section titled The Need for Productivity
43 Section subtitled “Land Reforms” under the title Market Reforms.
44 The Anjuman Mazareen Punjab (AMP) and the Sindhiani & Hari Tehreek in Sindh.
What is to be Done?

Since a major part of the Framework is concerned with the role of technology\textsuperscript{45} in enhancing growth, it was appropriate for this author to return to the work of Schumacher, who has also analyzed the role of \textit{appropriate} technology in creating a sustainable paradigm of development in developing countries.\textsuperscript{46}

Schumacher deals with appropriate technology in his chapter on “Social and Economic Problems Calling for the Development of Intermediate Technology”.\textsuperscript{47} If we define the level of technology in terms of “equipment cost per workplace”, we can call the indigenous technology of a typical developing country – symbolically speaking – a Great British Pound (GBP) 1-technology, while that of the developed countries could be called a GBP 1,000-technology. The gap between these two technologies is so enormous that a transition from the one to the other is simply impossible. If effective help is to be brought to those who need it most, a technology is required which would range in some intermediate position between the GBP1-technology and the GBP1,000-technology. Let us call it – again symbolically speaking – a GBP100 technology. Such an intermediate technology would be immensely more productive than the indigenous technology, but it would also be immensely cheaper than the sophisticated, highly capital-intensive technology of modern industry. At such a level of capitalization, very large numbers of workplaces could be created within a fairly short time; and the creation of such workplaces would be ‘within reach’ for the more enterprising minority within the district, not only in financial terms but also in terms of their education, aptitude, organizing skill, and so forth. The intermediate technology would also fit much more smoothly into the relatively unsophisticated...

\textsuperscript{45} The Sections on \textit{What Constrains Pakistan’s Growth?}, \textit{The Need for Productivity}, \textit{Creative Cities & Connectivity}.

\textsuperscript{46} This section will again rely heavily on citations from \textit{Small is Beautiful}, unless otherwise stated.

\textsuperscript{47} Chapter Twelve
environment in which it is to be utilized. The equipment would be fairly simple and therefore understandable, suitable for maintenance and repair on the spot. Simple equipment is normally far less dependent on raw materials of great purity or exact specifications and much more adaptable to market fluctuations than highly sophisticated equipment. Men are more easily trained; supervision, control and organization are simpler; and there is far less vulnerability to unforeseen difficulties. The applicability of intermediate technology is, of course, not universal. What the poor need most of all is simple things – building materials, clothing, household goods, agricultural implements – and a better return for their agricultural products. They also most urgently need in many places: trees, water and crop storage facilities. Most agricultural populations would be helped immensely if they could themselves do the first stages of processing their products. All these are ideal fields for intermediate technology. Schumacher then quotes two examples of applications of intermediate technology: The first relates to the recent tendency for international firms to design small petroleum refineries with low capital investment per unit of output and a low total capacity, say from 5,000 to 30,000 barrels daily. These units are as efficient and low-cost as the much bigger and more capital-intensive refineries corresponding to conventional design. The second example relates to “package plants” for ammonia production, also recently designed for small markets. According to some provisional data, the investment cost per ton in a “package plant” with a sixty-tons-a-day capacity maybe about 30,000 dollars, whereas a conventionally designed unit, with a daily capacity of 100 tons would require an investment of approximately 50,000 dollars per ton. The real achievement of intermediate technology lies in the accumulation of precise knowledge, and this knowledge can be applied in a great variety of ways, of which the current application in modern industry is only one. The development of intermediate technology, therefore, means a
genuine forward movement into new territory, where the enormous cost and complication of production methods for the sake of labour saving and job elimination is avoided and technology is made appropriate for labour surplus societies. A study of intermediate technologies as they exist today already would disclose that there is enough knowledge and experience to set everybody to work, and where there are gaps, new design studies could be made very quickly. Schumacher cites Professor D.R. Gadgil, director of the Gokhale Institute of Politics and Economics at Poona, who has outlined three possible approaches to the development of intermediate technology, as follows:

1. One approach maybe to start with existing techniques in traditional industry and to utilize knowledge of advanced techniques to transform them suitably. Transformation implies retaining some elements in existing equipment, skills and procedures…This process of improvement of traditional technology is extremely important, particularly for that part of the transition in which a holding operation for preventing added technological unemployment appears necessary;

2. Another approach would be to start from the end of the most advanced technology and to adapt and adjust so as to meet the requirements of the intermediate…In some cases, the process would also involve adjustment to special local circumstances such as type of fuel or power available; and

3. A third approach maybe to conduct experimentation and research in a direct effort to establish intermediate technology. However, for this to be fruitfully undertaken it would be necessary to define, for the scientist and technician, the limiting economic circumstances. These are chiefly the scale of operations aimed at and the relative costs of capital and labour and the scale of their inputs – possible or desirable. Such direct effort at establishing intermediate technology would
undoubtedly be conducted against the background of knowledge of advanced technology in the
field. However, it could cover a much wider range of possibilities than the effort through the
adjustment and adaptation approach.48

Another solution proposed by Schumacher which has special relevance now49 can be found in
his very short chapter on “Socialism”.50 According to him, both theoretical and considerations
and practical experience have led him to the conclusion that socialism is of interest solely for its
non-economic values and the possibility it creates for the overcoming of the religion of
economics. If the purpose of nationalization is primarily to achieve faster economic growth,
higher efficiency, better planning, and so forth, there is bound to be disappointment. A total
rejection of public ownership means a total affirmation of private ownership. Ownership,
whether public or private, is merely an element of framework. It does not by itself settle the kind
of objectives to be pursued within the framework. From this point of view it is correct to say
that ownership is not the decisive question. But it is also necessary to recognize that private
ownership of the means of production is severely limited in its freedom of choice of objectives,
because it is compelled to be profit-seeking, and tends to take a narrow and selfish view of
things (Schumacher). Public ownership gives complete freedom in the choice of objectives and
can therefore be used for any purpose that maybe chosen (Schumacher). While private

48 Schumacher’s theoretical work is being carried on in practice by an organization he founded, now called Practical
Action, in Third World areas like Bangladesh, East Africa, Latin America, Nepal, South Asia, Southern Africa &
Sudan. In East Africa, for example, projects are being undertaken in agriculture & pastoralism, small-scale
manufacturing, transport, urban livelihoods, shelter & renewable-energy generation. Other organizations like the
Jeevika Trust & the Schumacher Centre for Development are engaged in grassroots initiatives for appropriate
technology development with poor marginalized communities in rural India focusing on water & sanitation; skills
training, especially for women; local income generation (micro-credit); health and nutrition (establishment of
‘kitchen gardens’); & provision of socio-economic support to families infected with HIV/AIDS. Chapter Three,
“Third World development models” in Small is Beautiful in the 21st Century by Diana Schumacher, pp. 35-52, Green
Books, 2011. For more on Practical Action, visit their website www.practicalaction.org
49 Not just in the wake of the Great Crash of 2008-2010 worldwide but Pakistan’s own structural crisis – both of the
economy and of the (‘socialist’ Pakistan Peoples Party) ruling & policy-making elites.
50 Chapter Seventeen
ownership is an instrument that by itself largely determines the ends for which it can be employed, public ownership is an instrument the ends of which are undermined and need to be consciously chosen. There is therefore no strong case for public ownership if the objectives to be pursued by nationalized industry are to be just as narrow, just as limited as those of capitalist production: profitability and nothing else. The campaign of the enemies of nationalization consists of two distinctly separate moves. The first move is an attempt to convince the public at large and the people engaged in the nationalized sector that the only thing that matters in the administration of the means of production, distribution, and exchange is profitability; that any departure from this sacred standard – and particularly a departure by nationalized industry – imposes an intolerable burden on everyone and is directly responsible for anything that may go wrong in the economy as a whole. This campaign is remarkably successful.\textsuperscript{51} The second move is to suggest that since there is really nothing special at all in the behaviour of nationalized industry, and hence no promise of any progress towards a better society, any further nationalization would be an obvious case of dogmatic inflexibility, a mere ‘grab’ organized by frustrated politicians, untaught, unteachable, and incapable of intellectual doubt. This neat little plan has all the more chances of success if it can be supported by a governmental price policy for the products of the nationalized industries which makes it virtually impossible for them to earn a profit.\textsuperscript{52} What is at stake is not economics but culture; not the standard of living but the

\textsuperscript{51} Reading these words almost 40 years on, one is bemused when looking at how the ‘S’ word made an unwelcome return to mainstream American debate in the aftermath of the trillion-dollar bank bailouts by the US government (socialism of the rich) in the wake of the 2008-2010 Wall Street crash, as well as the limited health insurance ‘reform’ carried out by the Obama administration. Now in the wake of the Occupy Wall Street movement, critics like Schumacher might yet have the last laugh.

\textsuperscript{52} Events in Pakistan have shown this to be true: the vengeance with which erstwhile supporters of Zulfikar Ali Bhutto’s limited nationalization schemes (some of them were foolish and ill-advised) have turned over a new leaf in their second and third incarnations (under Benazir Bhutto and the present dispensation) has returned to haunt them, whether it is the tribulations of the Pakistan Railways, the troubles of the Oil & Gas Development Corporation or the woes of Pakistan International Airlines and PTCL. This should give pause to the enthusiastic privatizers (or privateers?) of the New Growth Framework.
quality of life. Economics and the standard of living can just as well be looked after by a capitalist system, moderated by a bit of planning and redistributive taxation. But culture and, generally, the quality of life can now only be debased by such a system. Socialists should insist on using the nationalized industries not simply to out-capitalize the capitalists – an attempt in which they may or may not succeed – but to evolve a more democratic and dignified system of industrial administration, a more humane employment of machinery, and a more intelligent utilization of the fruits of human ingenuity and effort.

Schumacher’s chapter on “Ownership” is a vital corrective to the privatization-led development strategies in many parts of the developing world, including Pakistan, especially in the light of the New Growth Framework. ‘Nationalisation’ extinguishes private proprietary rights but does not, by itself, create any new ownership in the ‘existential’ – as distinct from the legal – sense of the word. Nor does it, by itself, determine what is to become of the original ownership rights and who is to exercise them. It is therefore in a sense a purely negative measure which annuls previous arrangements and creates the opportunity and necessity to make new ones. These new arrangements, made possible through ‘nationalisation’, must of course fit the needs of each particular case. A number of principles may, however, be observed in all cases of nationalized enterprises providing public services:

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53 In the realm of culture, progressives in Pakistan have been celebrating the birth centenary of renowned socialist poet Faiz Ahmad Faiz this year; another kinship which Schumacher shares with the latter. Faiz always celebrated the quality of life under socialism and the working class, something his more elitist admirers are loath to understand.

54 The socialist approach to economics and politics has been amply vindicated, at least in Latin America, the first laboratory for so-called neoliberal reforms throughout the 1990s, with the result that socialist governments have been elected and re-elected in Venezuela, Bolivia, Argentina, Ecuador & Paraguay, and broadly sympathetic governments in Brazil & Uruguay since the 2000s.

55 Chapter Eighteen
1. It is dangerous to mix business and politics. Such a mixing normally produces inefficient business and corrupt politics. The nationalization act, therefore, should in every case carefully enumerate and define the rights, if any, which the political side, e.g. the minister or any other organ of government, or parliament, can exercise over the business side, that is to say, the board of management. This is of particular importance with regard to appointments.

2. Nationalized enterprises providing public services should always aim at a profit – in the sense of eating to live, not living to eat – and should build up reserves. They should never distribute profits to anyone, not even to the government. Excessive profits – and that means the building up of excessive reserves – should be avoided by reducing prices.

3. Nationalized enterprises, nonetheless, should have a statutory obligation ‘to serve the public interest in all respects.’ The interpretation of what is the ‘public interest’ must be left to the enterprise itself, which must be structured accordingly. ‘Serving the public interest’ means nothing unless it permeates the everyday behaviour of management, and this cannot and should not be controlled, let alone financially compensated, by government.

4. To enable the ‘public interest’ to be recognized and to be safeguarded in nationalized industries, there is need for arrangements by which all legitimate interests can find expression and exercise influence, namely, those of the employees, the local community, the consumers, and also the competitors, particularly if the last-named are themselves nationalized industries.

5. The chief danger to nationalization is the planner’s addiction to over-centralisation. In general, small enterprises are to be preferred to large ones. Instead of creating a large enterprise by nationalization – as has invariably been the practice hitherto – and then attempting to decentralize power and responsibility to smaller formations, it is normally
better to create semi-autonomous small units first and then to centralize certain functions at a higher level, if the need for better co-ordination can be shown to be paramount.

Conclusion

This paper has tried to show how the seminal work of E.F. Schumacher is especially relevant in the aftermath of the worldwide financial recession following the Wall Street crash of 2008-2010, primarily by revisiting and summarizing his great work *Small is Beautiful*; and how it could be a basis for reinventing economics and the development on more sustainable, humane lines. More importantly, in developing countries like Pakistan, where policy-makers have always been obsessed with growth and not development, Schumacher’s arguments are vital to giving our development trajectory a push towards a new, sustainable direction, something which is clearly still not recognized in the New Growth Framework issued by the Planning Commission, obsessed as it is with buzzwords having little relevance for the ills of Pakistan’s economy. As such the answer to the latter lies in Schumacher’s visionary concepts of Buddhist Economics, intermediate/appropriate technology, socialism and nationalization; the former two are already being successfully applied in various parts of the developing world, while the latter two are now being ardently debated even in the developed world following the disastrous economic crises that has spread to Western Europe and has led to sustained uprisings in the Arab world. To paraphrase Schumacher, “We must learn to think in terms of an articulated structure that can cope with a multiplicity of small-scale units. If economic thinking cannot grasp this it is useless. If it cannot get beyond its vast abstractions, the national income, the rate of growth, capital/output ratio, input-output analysis, labour mobility, capital accumulation; if it cannot get beyond all this and make contact with the human realities of poverty, frustration, alienation, despair, breakdown, crime, escapism, stress, congestion, ugliness and spiritual
death, then let us scrap economics and start afresh. Are there not indeed enough ‘signs of the
times’ to indicate a new start is needed?”

References


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56 Chapter Five, pp. 57-58, op cit.