Alternative Scenarios for 'Developing' Countries: The Fundamental Issues

by

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A high-income world egalitarian scenario in the middle of the next century is sketched and the conditions for its achievement discussed. The question is first raised whether it would in fact meet the need for creative work or even seem materially satisfying. So far, technical progress has been associated with increased tensions: these could interfere with the growth of output. Another problem is energy. On moderate population projections, the achievement of US or even West European levels of *per capita* energy consumption by the whole world would imply the exhaustion of fossil fuels within a few decades, and the construction of very considerable nuclear capacity. Another condition for achieving 'modern' living standards on a world wide basis would be the mobilisation of vast amounts of capital. It is difficult to see how this can be transferred to countries requiring a 30 or 40 fold increase in *per capita* income, or what political forces will produce heavy internal redistribution. The prospect for the 21st century is therefore one of inequality and poverty. But if worldwide modernisation is not feasible, then policies of opening the door to foreign influences become questionable.

ALTERNATIVE SCENARIOS FOR 'DEVELOPING' COUNTRIES: THE FUNDAMENTAL ISSUES[1]

Since the ... 'developing' countries are now, in varying degrees, integrated into the world political economy, I cannot discuss ... possible ... scenarios without first referring to the ... do this ... structure of the world as a whole. Naturally, to ... input; ... roughly would require a very heavy research ... of the ... however, the main determinants of the structure ... internal ... economy can be broadly discussed, and the ... help of ... logic of some scenarios investigated, with the ... ent research.

A The ... Context

One possible ... long-term world scenario is as follows. By (say) the ... middle of the next century, economic and political ... differences will have largely disappeared. The gap (in ... capita income) between today's 'developing' and 'developed' countries will have largely been eliminated by the ... former's faster economic growth. The size of populations in all continents will be in approximately stable equilibrium, with an expectation of life of about a century ... made possible by the control of cancer and heart disease, but very low birth rates. Migration will be uncontrolled and considerable. Differences in skin colour will be disappearing with inter-marriage. Concentrations of income will be greatly reduced.

... will in fact be homogenised. The great majority ... will live in modern flats in architecturally similar ... cities. Virtually every family will own at least one ... car and a battery of electric devices that will largely ... 'automate' housework and provide ready means of ... communication (with friends, shops, banks, etc). Jobs will ... be available for everyone seeking work; women will do ... same types of work as men and wear the same clothing. ... Almost everyone will be able to converse in English, ... although local dialects will be preserved, ... will ... form, like local music and dancing, part of folklore ... So will the residual religious ceremonies ... marking birth and death. Violence between ... will be controlled by behaviourist therapy,

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... lished in "Problems of Cultural Relations in ... ndent World" (East-West Centre, Honolulu,

and between governments by compulsory arbitration. The United Nations will have become virtually a world government. Civil liberties will everywhere be respected, and there will be a high level of popular participation in politics.

This hyper-modern scenario is widely deemed both desirable and inevitable, even among those with very different political philosophies. Commissar and capitalist alike draw from the Hebraic roots of Western Civilisation a profound Utopianism and from its Hellenic origins a faith in the ultimate triumph of scientific method. They therefore share a belief that there can and will be a solution some day to the world's social problems.[2] (Without such perspectives, their careers would lack a central meaning, and any ruthlessness involved in exercising power would lose moral justification). All who share the sort of scenario of this kind as a guide to action have in fact more in common than is generally realised. First, they all define the problem to be solved as essentially economic. Second, they all treat economic indicators, especially the national income, as a measure of progress to a solution. Thirdly, they all see the economic task as essentially one of 'modernisation', the core of which is industrialisation, with the modern sector spreading until it eventually covers 'backward' areas as well, and overcomes the primitive cultures to be found there. Fourthly, they all assume (and it is merely an assumption) that, after some economic level is universally achieved, social problems will disappear (even, in Marxist terms, that the state will wither away).

There is a basic political difference between Left and Right on the route forward: whether this scenario will represent the logical triumph of the market system, or result from its crisis and collapse in world revolution. (It could of course also come about through countries evolving along various paths that eventually converge). But on the economic and social objectives there is reasonable agreement. Even apparent differences on the organisational form of this scenario - whether the typical unit of production will be socialist or capitalist - and therefore how strong will be the eonomic controls

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[2] "The next 200 years" by Kahn, Brown and Mastell (1976): for Soviet views, "Mankind and the Year 2000" by Kosolapov (1970) and "The Future of Society" by Modrzhinskaya and Arzumanyan (1973). A characteristic of Kahn's work is that he accepts a high degree of inequality as neither unusual nor politically implausible.

...sed by governments (world and national), are not as ... as they seem: the question is whether big public or ...ivate bureaucracies will triumph.

... certainly evidence that, in many respects, we are ... in the general direction of this scenario. Economi- ... politically and culturally, an international system ...rging - incompletely and fitfully, but definitely ... shape. Moreover, the causes are fairly obvious. ...ital and expertise requirements of high-technology ..., notably aircraft, require output in each industry ...concentrated increasingly in a few models produced ...w transnational firms, eliminating small and medium ...ers and their brands. International agencies are ...reading rapidly and, like the transnational corpora- ... they require denationalised staff.

... argue that this Utopia, is nevertheless unattain- ...d that policies based on its feasibility are ...ously mistaken. But first let me declare my own ...ices. Of course, any sane person must welcome some ...es of the Utopia especially a secure peace. Of ..., it would be an immense social gain if basic ...al needs were met. But taken as a whole, a scenario ...s type arouses in me feelings of horror and revulsion ...may be reflected in my professional criticism.[3] ... of course a subjective judgement, and therefore ...ntific'. But there is no objective way of choosing ...iteria for evaluating long-term scenarios, because ...s really involved is the meaning of human existence.

...ntally one's choice of criteria is intuitive, and ... private set of values ('objective function') gives ... weight to human <u>differences</u> - in nation, race, ...e, sex, ability, etc. - and to creative work and ...ety. Although personality cannot develop unless ... basic material needs are met, these are obviously ...art of our requirements, and if their satisfaction ... sacrificing the roots of personal identity, or ...oring and repetitive work, either on assembly ... in bureaucracies, these are heavy costs to weigh ... the benefits.

... familiar with some of the literature in this field ...ice that there is strong correlation between what ... <u>expect</u> and what they <u>want</u> to happen: even those who ... that doom is nigh seem to enjoy doing so.

carrying out such an intuitive cost/benefit appraisal, should bear in mind that these needs can be exaggerated. For the great majority of mankind, the basic physical needs (for food, water and shelter) have already been met: many of the further needs we see as important (including more food and many housing amenities) have been socially induced - by emulation and advertising, in fact by the very process of modernisation itself. These are wants, not needs: indeed, some of them are damaging (certain foods, cigarettes, high-speed cars, etc.). Material progress can, therefore, never satisfy even material demands because it creates new ones all the time.

There is no way of verifying the previous paragraphs. Those who object to them, as contrary to their own Marxist or liberal ideologies, or to their introspective assessment of how deprived they would feel (and why) if their present income were halved, can only refer to a different subjective belief, which underlies these ideologies, essentially that human beings are perfectible if consumption wants are satisfied.

But to say that these are non-verifiable propositions is not to deny the possibility of finding material that throws light on them. If material progress is a sufficient condition for solving social problems, we may look for a decline in neuroses as levels of living rise, and therefore in such symptoms as violence, mental illness, suicide and addiction to drugs (whether in a more-or-less natural state, like tobacco and cannabis, or fermented into wines and spirits, or manufactured into sedatives). Actually, it is of course common knowledge that, on the contrary, there are upward trends in these symptoms in both the capitalist and socialist societies. There is certainly evidence of violence on a worldwide scale in the 1970s, not excluding countries where material prosperity is greatest - rioting, looting, assassination, terrorism, bombings, kidnapping, hijackings, etc. While there are various explanations of why these have become more conspicuous, they must be broadly the products of changes in modern society related directly or indirectly to technological advance. This suggests that the price being paid for material progress is high.

It may, however, not merely seem biassed, but be professionally ineffective, to base a critique of modernisation on personal doubts about its widely accepted desirability. It runs the risk of being dismissed as another 'back to nature' crank. So I shall concentrate on whether this scenario is internally consistent - whether a homogeneous Utopia is in fact possible.

Socio-political conditions

A question arises immediately out of what has been said above: are the social stresses of high technology not only intrinsically undesirable but also capable of undermining the levels of production it makes possible and releasing manpower to be diverted into security services ? It can be argued that mental illness, suicide and drug addiction have minimal effects on output. But violence certainly could become a threat to the functioning of modern society. So could strikes, the frequency and incidence of which may be aggravated by the nature of work in many modern factories apart from the desire to obtain a greater share in the affluence that seems readily available.

However, the modern economy is so inter-dependent as to be highly vulnerable to its social stresses, as input-output analyses reveal: holdups even in the manufacture of ball bearings, say, let alone in electric power supplies, can halt production in a large sector of industry. The social system is also vulnerable. Socio-economic unrest can produce authoritarianism, as can be seen throughout the 'Third World'. This inhibits innovations and their communication, which these are necessary to scientific advance and therefore ultimately to the creation of the life styles the scenario envisages.

What are internal and international peace in the end conducible ? Is there not a possibility at least that authoritarian regimes (which take power with the slogan that order must be restored) will take advantage of the lack of public scrutiny of their policies to threaten the use of the military products of modern technology, raising the danger of a pre-emptive strike, especially if their regimes are precarious. One could certainly find material to support this view - as one example, the Arab-Israeli conflict. A major war, or even a series of localised conflicts, could play havoc with the whole scenario.

There are also inconsistencies (or as Marxists say 'internal contradictions') in this scenario which are more specifically economic and therefore professionally more respectable. The worldwide spread of modern technology would require amounts of energy, capital, etc., which can, at best very roughly and partially, be quantified. These requirements would arise first out of the increasing population, especially in 'developing'countries, second from a rising consumption.

...tion pressure

...re many projections of world population, depending ... on assumptions about fertility. Here I shall only ... two sets which have been thoroughly worked out; ... of the United Nations[4] and Mesarovic and Pestel[5]:-

Table 1

World Population Projections, 2000 and 2050 (billions)

	1975	2000	2050
...d Nations - Medium variant	4.0	6.3	
- Low variant	4.0	5.8	
...rovic-Pestel - High variant		6.7	11.2
- Low variant		5.2	6.3

... estimates were all prepared in 1973, and assume moderate ... in mortality. I have omitted two higher UN variants, ... on constant and gradually declining fertility respec... because since 1973 it has become clear that fertility ...falling.[6] The UN projections quoted are based on assump... of moderate and fast fertility declines (outside ...ern Europe where it is assumed to stabilise). Inter... values of 6 billion (2000) and 9 billion (2050) will ... for the purposes of the rough estimates in this paper, ...ing a growth of 50% in the last quarter of this century ... another 50% in the first half of the next, with a con... deceleration. Some such slowing down would be ...essary to make the scenario realisable.

...rld Population Prospects, 1970-2000" (ESA/P/WP.53.1975)

..." and at the Turning Point - The Second Report to the ... of Rome" (1974).

..."Fertility Trends, 1950-1975" by W.Parker Mauldin in ... Council Annual Report (1975).

The Energy Constraint

These projections for population can be combined with two hypotheses about energy consumption.[7] The implication of estimates in a Ford Foundation study is that, by the year 2000, US consumption of energy would rise from its 1970 level of 12 tonnes of coal equivalent (tce) per capita to 28, on the assumption that relative energy prices returned to the early 1970s level.[8] This would correspond to upper-middle-class US consumption levels today. If we take this as the world average in the mid-21st century, as is more or less implicit in the Utopian scenario - let us call this scenario A - and the population projection suggested above, we get very heavy energy consumption indeed, as Table II shows.

Table II

The implications of different hypotheses on world energy consumption for 2050

Assumed average (tce per capita)	World Total in 2050 (billions of tce)	Approx 1974-2050 cumulative[a] (billions of tce)
Scenario A		
28 (US, 2000)	252	10,000
Scenario B		
6 (Sweden, 1974)	54	2,000

[a] The area under a logarithmic curve assuming a constant rate of growth.

It can be compared first with the actual world consumption of less than 9 billions tce in 1975 (2.25 tce per capita), and second with proven reserves of fossil fuels (coal, oil and natural gas) at about 1,500 billions tce, mostly coal.

I have drawn the basic material on energy consumption from a chapter by John Chesshire and Keith Pavitt in "World Futures: The Great Debate" ed Chris Freeman and Marie Jahoda (Science Policy Research Unit, Sussex, to be published by Martin Robertson in 1978).

"A Time to Choose" ed David Freeman (Ballinger, 1974).

llow for hydro-electric power and for ultimately
fossil fuels being several times as great as
proven reserves. There are of course also other
tional sources of energy which have hardly been
ll (geothermal, solar, wind, tidal). These
wever, technical uncertainties (especially in
rage) and timelags and capital costs, as does the
of reserves yet unproven. So this hypothesis
restricting fossil fuels (even in countries
are abundant) to prime uses, especially vehicles
ry efficient and light-weight storage batteries
ped).

lso mean the development of very great nuclear
in particular breeder reactors. The greater
is capacity would have to be constructed in
, which would be very short of fossil fuel re-
the consumption levels postulated. The capital
roducing enough money to raise the whole of Asia
y), Africa and Latin America to this level would
so would the environmental problems. These
uld be consuming more than three-quarters of
s total energy. Moreover, fossil fuels would
ensive as they became more difficult to extract,
duction declined in an increasing number of
rs, aggravating their need for revenue. This
to stimulate production of new sources of energy,
r countries with limited reserves of fossil fuels
energy or install massive nuclear capacity, it
se them even more severe financial problems than
price rises, making it very hard indeed for them
up economically.

ncy of 'modernisers' faced with such arguments is,
lly, to fall back on miracles - in this case a
t ways will be found to develop unconventional
nergy in time and cheaply. And that some system
iscovered for monitoring the output of plutonium
olling its uses, involving even more remarkable
tive and political assumptions. Much the same
nswer are offered to those who point to the
nuclear 'incidents' and the certainity of highly
effluents difficult to store.

It is very doubtful whether such immense nuclear
would be consistent with the libertarian aspects
nario, in view of the serious security problems
clear power stations, and whether this capacity
restricted to peaceful uses.

hard to avoid the conclusion that scenario A has to be
ioned. Let us turn to an alternative scenario (B), in
more modest consumption standards and patterns are
ed at, such as are current in Sweden, where energy con-
ion in 1974 ran at 6 tce per capita. Yet this would
mean too big a growth of energy consumption to be
fied by fossil fuels, or even non-conventional sources.
ed, to reach the level projected for 2050 in Table II
require supplies of at least 20 billion tce in the
, or more than double the level of 1974. It is
unlikely that energy from fossil fuels could double in
period or great progress be made with new sources.
efore nuclear power would have to make a contribution
the order of 5 billion tce, and rising rapidly, involv-
increasing reliance on fast breeders in the 21st cen-
- though not nearly as much as in scenario A. It is
drawing attention to the fact that heavy reliance on
ear power seems very probable in Sweden itself in the
future, and it will be inevitable when oil becomes
e.

e reductions in energy consumption are, however,
ed by scenario B for the USA where per capita consump-
already more than twice the figure mentioned above,
further increases would need to be prevented throughout
'developed' world. On paper, the growth of energy use
halted by various means. Improved energy conver-
techniques could make some contribution. But incomes
industrial production could only continue to rise in
A and other developed countries - with average energy
ption being held to this level - if there were sub-
ial changes in patterns of consumption, especially
ions in the use of energy in private motoring, cen-
heating, electrical gadgets, etc.

these changes be brought about? Of course,
in energy prices are virtually implicit and would
to change consumption patterns in the right direction,
would hardly be compatible with an egalitarian
as has been pointed out above. So either a halt to
growth or strict consumption controls (or taxes)
needed. Yet there seems, even embryonically,
llation of forces in international or national
powerful enough to compel the publics of 'deve-
countries to accept an end to economic growth or

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al OPEC countries, notably Kuwait and Venezuela,
has already passed its peak and is likely to
further by 2000. To double coal output would
y heavy investments.

...nge their life styles to this degree.[10] On the ...try, companies and unions in sectors producing energy, ...tially electricity, and equipment for energy production, ...ming energy (especially motor cars), would be ...ful adversaries. In the absence of a feasible politi... ...hanism, why should even this, much less ambitious ...ario be taken seriously ?

...ntially threatening problem would be raised by car... ...oxide emission.[11] A cumulative energy use of 2,000 ...on tce (largely of fossil fuels) over the next 75 ... would cause a total emission of over 2,000 billion ...s of carbon dioxide. Even if half of that were ...ed, mainly by the sea, as is believed to be happening ...ently, (and there is some question mark over the absorp... ...capacity of the oceans), there would be a significant ...on to the amount currently in the atmosphere, about ... billion tonnes. Each 1,000 billion tonnes may raise ... average temperature of the earth by more than 1°C.

...ver, we need to allow for the dust particles, some of ... originate in the burning of fossil fuels, also ...bing surface heat radiation. However, it is by no ... certain that this warming effect would be unwelcome. ... experts argue that this 'carbon dioxide greenhouse'[12] ... of industrialisation has recently been offset, at ... to 1970, and even outweighed by basic cooling ...encies, also partly man-made (due to deforestation etc.)

...en ending economic growth would mean changing life ..., because of the employment problem. Growing produc... ... could only be offset by increased leisure and shifts ...our-intensive forms of production, if unemployment ... to be avoided.

... ...aw heavily here on a draft chapter for a study to be ...ed by the INTERFUTURES group of OECD.

... ...imatic changes in the coming decade" by George Kukla ...tant for the Future Vol II No 1 (UNITAR, 1977). ... the following issue in which Irving Kaplan makes ...rather extreme) suggestion that there is a basic cooling ... °C a decade and forecasting a climatic crisis in ... 1980s.

...net trend is apparently unpredictable in the present ...te of knowledge, but whichever way it went its effects ...clearly could be very serious.[13] (Another argument ...inst scenario A is that it might well have devastating ...effects, especially on the polar ice caps).

...pital needs

...rtage of capital has already been mentioned as an ...pediment to solving the energy shortage. However, even ...cenario B would require very big capital investments in ...ll sectors. Of course, capital is only one requirement ...r growth (less important than technical progress) but it ...essential.

...er capita income of Sweden was $ 7,200 in 1974. If ...poorest countries are to achieve anything like this ...e level, say $5,000 (at 1974 prices), the great bulk ...world investment would have to be devoted to Africa, ...sia and parts of Latin America - the opposite to its ...rent distribution.

...re were 33 countries in 1974 with a population of 1,130 ...llions where income was less than $200 per capita ...though one must take these figures as very tentative ...ome incomes in poor rural areas are very inadequately ...ured). Their average income was $130. To raise that ...,000 would mean a nearly 40-fold increase: if it is ...be done by 2050, that would require a growth of 5% ...ar. These countries, which include India, Indonesia, ...kistan and Bangladesh, are among those where population ...w at a relatively fast pace, and might well treble ...the next three-quarters of a century[14] (this would need ...than 2% a year) so that total GNP would have to rise ...than 100-fold or say by $20,000 billions. Using a ...ly arbitrary incremental capital output ratio of 3 ...low in view of the capital needs of energy above), ...would require some $60,000 billions of capital ...stment altogether, starting with an annual rate of ...$ billions in the 1970s, and then growing rapidly,

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...re would in any case be something disquieting ...olving on a canopy provided by burning fossil fuels ...a descent, possibly a swift one, into another ice

...line with a trend intermediate between the ...and 'low' projections for South Asia, but one ...ather sceptical about the implied density of ...ion. There are already signs that mortality is ...to fall in this region.

equivalent to 20% of GNP. This is quite beyond the savings capacities of the countries concerned, especially if their incomes are to become less concentrated, and there is to be more participation in government. The capital requirements of scenario A would of course be even greater. Since the energy constraint (at least for the 21st century) is ultimately a capital constraint, that is all that one need to say to demonstrate that a 'modern' living standard for the masses of South Asia or several other regions cannot be financed out of their own resources within the foreseeable future.

A proper possibility is an increase in foreign aid. This would have to be massive and on very easy terms, but one comes back to the question: where is the necessary political force to come from ? Humanitarian motives in rich countries are not to be despised, but in fact they have carried little political muscle so far. Moreover, as energy supplies become more expensive, the long-term economic trends of many rich countries which import oil will include chronic inflation and recurring foreign exchange deficits: these will induce deflationary policies, further weakening their aid lobbies.

Conceivably, concerted action by the governments of 'developing' countries, using their bargaining weapons collectively, could shift capital towards them via commodity support and other devices. Indeed, this is what has been very roughly sketched in the 'New International Economic Order'. However, there is little reason to expect from recent diplomatic history that such a coalition would survive the detailed and strenuous bargaining need to bring about such a redistribution of the world's wealth.

Another possibility which somehow sustains the optimism of some is that a united international prelotariat will overthrow world capitalism at its centre. It is now very questionable whether this old dream is in any way realistic. Real wages in 'developing' countries can easily be increased greatly without depriving 'developed' countries of the means to buy enough energy and other raw resources to maintain the real incomes of their own working classes. Even were a revolutionary government to take over a core-capitalist country, it could hardly afford to let real incomes, especially of industrial workers, decline substantially. What the oil crisis and related raw material shortages in recent years have begun to expose the lack of fundamental common interests, which had in any case been undermined by the widening of international wage differences in the past century, and to encourage nationalism.

Some other constraints

Another possible constraint would be educational. To raise the technical level of the population, especially of Africa, to today's West European levels within 75 years would be an immense task, especially in tropical Africa. It would imply achieving virtually universal education up to age 16, and numerous big institutions of higher education. This would not in itself be impossible. It would, however, increase the financial strain on the poorest countries, especially in view of the large and increasing fraction of their population in the school age groups. It would also require the retention within the educational system of a big fraction of the output of its higher level to teach the swelling numbers: this would make it more difficult to find the qualified manpower for the other sectors.

If all these problems were solved and all sections of the community had full access to secondary education, there would be a big question about who would do the menial jobs, especially on the farms, in the mines and the hotels. This gap has been largely filled in Western Europe and North America by use of migrant labour and by mechanisation. But there would, in this scenario, be no labour available (even for the 'developed' countries to export) and widespread mechanisation in 'developing' countries would make the capital costs of full employment extremely high. A degree of direction of labour would seem inevitable, as in the socialist countries today, but that would be a major defect in the scenario.

Food is even more fundamentally a distributional problem, despite the prospective continued loss of agricultural land due to erosion and urbanisation. Total food output could no doubt keep pace with the increase in world population indicated above - a rise of 1½% a year would suffice.15 In many areas, however, food consumption would need to rise much faster than this in the near future, not merely to achieve nutritional levels which are acceptable on humanitarian grounds, but also to satisfy the scenario. One reason is that if children are born and grow up undernourished in the last quarter of this century, the work force of the next will be physically or mentally capable of the output that is needed even on scenario B.

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15 There are, however, great doubts about the possibility of fish output rising substantially, especially if allowance is made for the increased hydrocarbon pollution of the sea (due to both fallout and tanker spillage) implicit in the scenario. In addition, growing pressures on land would reduce meat production. A faster increase in crop output would therefore be needed.

A fast increase in agricultural production in Africa and Asia would be implicit in the scenario, not merely to satisfy food needs, but also to provide employment, especially in the decades before urbanisation there is high. This raises problems of rural organisation, including technological diffusion and reforming systems of land tenure, and the time lags involved are great. To increase food consumption to adequate levels in the poorest areas with the fastest increase in population growth (and the greatest difficulty in affording fertilisers and other inputs) could hardly be done without an acceleration of the current flows of food from the main cereal exporters, especially the USA, and heavy internal redistribution of income. Questions are again raised about the political feasibility of this, whether we look at the international or internal requirements, and also about its economic implications, because it is difficult to transfer food without discouraging its production by recipients.[16]

Metals could be another constraint, especially on achieving world incomes of the levels indicated above, but the possibility always exists of mining lower-grade or deeper ores in response to rising prices. This will only slow world economic growth if policymakers cannot either control or tolerate price inflation or find it difficult to raise the necessary capital.

Various types of pollution (pesticides, phosphates, nitrates etc) would also be very high at these levels of output. The problem is one of identifying and then abating them. It seems that considerable progress has already been made in the former and that the costs of the latter need not be unreasonable.[17] The problems are again ones of political motivation, in this case especially in the countries that would need to grow fastest.

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[16] There would also be resistance on the part of food importers, especially Japan and many Western European countries, to the terms of trade being turned in favour of food producers, as this scenario implies.

[17] "The United Nations World Input-Output Model", W. Leontief (1976)

To sum up the argument so far, it is technically and economically unfeasible - if only because of the energy and capital implications - to achieve by the middle of the next century consumption standards for the mass of the world's population at a level corresponding to today's higher incomes in the United States, if only because of the energy and investment demands. Equality at less energy-intensive levels, such as those of Sweden today, would possibly be technically and economically feasible but politically highly doubtful, because it would mean putting a ceiling on incomes and/or drastically changing consumption habits in the 'developed' countries.

In fact, the only reasonable expectation is that there will still be large international inequalities in the middle of the 21st century, although around an income level much higher than today. Some people will, as today, enjoy 'modern' living standards: some will not. Whether any individual does so will depend, also as today, partly on what bargaining strength his or her government possesses or can develop. Indeed, in the harsh world of natural resource shortages, bargaining capacity will be more important. Oil exporters will enjoy long-term improvements in the terms of trade and fast rates of economic growth - as long as their oil revenues persist. But there is little prospect of countries without many trump cards to play, or considerable technological and political capacity, doing much more economically than keeping pace with population growth, unless it slows down considerably. Big, poor countries, like India, Bangladesh, Burma and Egypt, may well continue in a state of semi-stagnation. So, while there will be changes in the ranking of countries, the prospect is for the concentration of income between them to continue increasing.

National scenarios

Income distribution

Let us however also explore the consistency of the internal dimensions of the scenario sketched at the beginning. This also envisaged greater equality within countries, especially 'developing' countries. In half of these, the poorest 40% share only 9% of income[18] (although the caution about rural

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[18] "Income Inequality" by Montek Ahluwalia in Redistribution with Growth (IBRD-IDS, 1974), p 7.

income measurement must be born in mind), as against 14% of income in Sweden. Even if average incomes rise 40-fold, as would be necessary in some countries to achieve scenario B, let alone A, the incomes of the local rich would have to be held back if those with the lowest incomes were to attain current Swedish-style levels of living. Yet it is precisely those who are already rich who have the technical expertise and capital to benefit from growth and there is little sign of a decrease in the concentration of income in any of the fast-growing economies where this can be measured.

What would be needed to achieve such massive internal redistributions of income would be drastic changes in the ownership of property, particularly land. The scenario would be incompatible with anything like the present concentration of land ownership, if only because large farms are normally producing at low levels of output per hectare, mostly livestock products, so the necessary rise in cereal output could not be obtained; yet landowners constitute one of the main bases of political power for existing regimes. The scenario would also imply taking away many of the economic and political privileges of state bureaucracies. To identify plausible internal forces to bring about the situation described in either scenario is almost as difficult as to discern what would achieve it on the international plane.[19]

Those living the 'modern' life have every incentive not to give up their privileges, even if it means (as it often does) using political repression to preserve them: indeed the increasing price of oil has already reinforced their determination not to sacrifice energy-intensive life styles. Such consumption tastes are shaped by external cultural examples, in contrast of course to those of their counterparts in the industrialising countries of Europe in the 19th century. They also receive political support from abroad (which inhibits their exercising what bargaining power they have in international negotiations). Moreover,world scenario B requires them not only to accept such economic sacrifices but simultaneously to implement complex socio-economic plans that would need great effort and judgement. Yet it has been argued that scenario B is politically unfeasible - in that event, all the capital and educational costs of ending massive rural and urban poverty would require even greater internal redistribution.

One consequence is that a fast decline in population growth and its levelling off seems improbable. Population

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19. Not quite, because those who are most deprived can get within stone-throwing distance of the national elite.

must ultimately be an endogenous variable in scenarios, and though the causal mechanism is complex and not clearly established, it clearly depends in large part and general on socio-economic progress.

The original vision of 'dualism' theorists was that the modern sector would spread gradually until it enveloped the whole population - as had apparently happened in the 'developed' countries. This is obviously very improbable.

External Links

Here we have come to a crucial point in the argument. Suppose the contrary were true and 'modernisation' could be relied on sooner or later to eliminate poverty, and create internal scenarios with high and fairly well-dispersed incomes. Then it would be argued that the optimal strategy in most 'developing' countries would be to open the doors to the inflow of foreign capital and technology and the associated political and cultural influences, because the price in terms of the partial destruction of national culture would, on humanitarian grounds, be worth paying and perhaps be politically inevitable. It would be correct to consider, as 'modernisers' do, local languages, religions, traditional customs, etc. as 'obstacles' which would (no doubt regrettably) need to be removed. But it is clearly not worth paying that price unless there is a good prospect that this sort of scenario can in fact be realised. A more plausible world scenario is indicated by this analysis - and in my personal view also more desirable. It envisages strong and more independent nations (not necessarily with the same frontiers as today) restricting foreign political and cultural influences, and therefore limiting economic contacts. Consumption would be physiologically adequate but its pattern would not be a copy of those in the 'developed' countries. Development plans would build on local traditions, which would be seen as the essential conditions of achieving the scenario not as 'obstacles'.

This does not by any means necessarily mean autarchy, i.e. cutting off foreign influences completely. For countries that are already integrated into the world economy, especially small ones, this option is not really open. In many, industries rely heavily on inputs from abroad (e.g. tractors, mining machinery, steel, heavy chemicals). Armaments, food and energy often have to be imported. Technological progress may be largely obtained through the transnational corporations. To sever external links with the major powers would mean painful social costs in the form of increased unemployment and lower real incomes for large sections of the population, especially those in export industries, the bureaucracy and sections of the professions and industrial working classes. In such countries, the political basis for a 'closed door' policy is therefore narrow. On the other hand, those opposing

such a policy get powerful foreign support, including on occasion military intervention.[20]

One should not draw the conclusion, on the other hand that a more egalitarian and self-sufficient scenario must necessarily prove unworkable. Great political change can be expected in many countries because of growing income inequality and the continuation of severe poverty. What it does mean is that to succeed, a revolutionary strategy would need to allow scope for foreign links for some decades at least. This appears to be true even of China, to judge from the defeat of the xenophobic and highly egalitarian 'gang of four'. It is true a fortiori of smaller countries which are much less able to insulate themselves politically, culturally or economically.[21].

The clue to the survival of any type of government is a selective policy towards foreign influences, judging each proposition (e.g. an investment project) on the basis of an objective appraisal of its social costs and benefits. This applies to 'developed' countries as well as the 'developing' (and the previous sharp contrast is becoming obsolete). Selectivity has been and still is the Japanese practice. It is now implied by the very elastic term 'self-reliance'. It means training cadres capable of deciding what foreign inputs are necessary for national development; how high a price should be paid for them (in cultural and political as well as economic terms); and which country is the best source, taking account of the need for a technology appropriate to national circumstances - and of the intrinsic advantage of diversification. It also means avoiding being politically dependent on any single great power.

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20. All this was demonstrated by the failure of the insurrection in Sri Lanka in 1971, which was based precisely on a policy of achieving autarchy by converting the tea estates to food production. Support from Colombo workers, which the JVP hoped for, never materialised.

21. It might be argued that the Cuban Revolution has survived despite the severance of nearly all links with the United States. However, this was largely due to the Soviet government stepping in to replace the United States and to offer not merely a guaranteed market for the leading export (sugar) but also credits for arms and for the inputs essential to keep the economy running. They could hardly provide help on this scale to many countries (even if their basic foreign policy in the years ahead permitted them to sponsor additional revolutions of the Cuban type).

Such a basically nationalist strategy also requires a sufficient cultural basis and a knowledgeable political leadership.

National Structures

Here we come into a field where the crystal ball is even more cloudy, and generalisation very difficult. However, it seems that the scenario just sketched may require the elimination of caste and other social differences, and a moderation of income inequality, to achieve the necessary national unity (especially since egalitarian ideas cannot be completely kept out, in the late 20th century). Moreover, import-intensive consumption patterns cannot easily be changed without reducing the concentration of income. However, policies to achieve this would come up against the same vested interests as would obstruct egalitarian tendencies in the 'modernising' scenario. In fact, a scenario of this type might well also prove unattainable in countries with deep social and/or ethnic divisions. In such countries, the likelihood is a continuation of a vacillating strategy, alternating between different ideologies and different internal and external sources of support as they each in turn prove politically unmanageable. Ghana has been a case in point.

Size may also be a constraint. Very small economies can hardly develop the necessary bargaining capacity, and their specialised economies are likely to be heavily dependent on foreign markets as well as foreign sources of the essential goods listed above. In economic theory, these weaknesses can be reduced by regional integration, but so far, none of the regional groupings of small countries (in East Africa, the Caribbean, Central America or the Andean region, for example) have been very effective. There may not be, even in these groups of neighbours, efficient cultural and political homogeneity to build the political framework for integration.[22]

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22. Some countries, like Puerto Rico, may be able to reduce poverty by becoming part of a big neighbour and enjoying the guaranteed protecion of its fiscal system. There may, however, be a heavy price to pay in the weakening of national culture, for example the perversion of music and dances into entertainment spectacles, and a contamination of the language.

Some countries may seem to have sufficient assets to be able to envisage a future scenario with a high degree of self-reliance, e.g. oil exporters. However, most of them are heavily dependent on foreign firms for production technology and for marketing their oil. Moreover, the exchange rates and wage levels made possible by oil revenues inhibit the emergence of other sectors, so that when oil revenues decline, the economic structure ceases to be viable. Despite the prospect of rising oil prices, such revenue declines are likely before 2050 for all existing exporters, except perhaps Saudi Arabia, because of the exhaustion of resources. In the meantime, in the smaller ones, national unity is undermined by dependence on migrant labour, and great inequality.

It is the larger economy, with oil enough to provide for local needs, but not enough to distort the economy (e.g. Brazil, Nigeria, Indonesia, or China) which is most likely to achieve high incomes, widely dispersed, and a degree of self-reliance in the next century, provided social and ethnic differences do not disrupt them.

Further than this one can hardly go. The analysis points to a patchwork map in the next century, with some countries still dependent on the capitalist powers and showing income and internal inequalities, alongside perhaps neighbours with more highly controlled economies linked to the Soviet Union or China and others (probably bigger) able to pursue a partially independent strategy with a big emphasis on nationalism. In another dimension, some would have very high average incomes by today's standards, high enough to haveeliminated mass poverty: in others, the combination of slow growth and increasing inequality will imply that large-scale poverty persists.