RECONCEPTUALIZING DEVELOPMENT:
A Linkages-of-Capital Approach

Introduction

Education must always provide the fuel or should be the catalyst for development by enhancing not only knowledge but also attitudes and skills’. Current theorizing and measurement do not really capture the multidimensional nature of development. The received wisdom fuelling development efforts has highlighted the importance of technological accumulation (Bell and Pavitt 1997), economic modeling (Zafirovski 1999), people’s participation (Redclift 1992), bilateralism and multilateralism via trading blocs (Riley 1998), structural adjustment and the importance of contemporary knowledge management. (Jayarajah and Branson 1995). The major deficiency of these approaches is that they have largely focused on one aspect of development and the resultant practices have spawned a variety of destabilizing and decivilizing processes which continue to escalate: rich-poor gaps, gender, social class, religious geographic inequalities and social problems. These have been further aggravated by materialist values which usually accompany capitalist-driven development. Collectively, over time, the aforementioned impacts and approaches have sometimes increased or decreased the strengths and vulnerabilities of economies globally to varying degrees. One international response to shortcomings in measurement was to strengthen the (GNP) or Gross
National Product with the HDI or Human Development Index. The former was a purely economic measure while the latter, (HDI), took into consideration other factors such as literacy levels, life expectancy and educational attainment (Beneria 2003). After decades of development theorizing, research, policy formulation and program implementation, the ‘balance sheet’ still shows little progress in some areas and increasing inequalities and deprivations in others. This obviously requires that we revisit current notions of development particularly now when many development perspectives are only addressing parts of the issue (Kothari and Minogue 2002). Moreover, we need a philosophy for development, one that prioritizes the need for people and nature to be harmonized, theory development be interdisciplinary and so too research in order to capture the multidimensional nature of reality. Such perspective aligns cultural, intellectual, emotional and social ways of being in order for us to realize the full extent of our ‘beingness’ since people are always central to development. What do we, however know about development?

**Theoretical Framework**

Current development discourses have been strongly influenced by perspectives such as Globalization, Marxism, World Systems Theory, Dependency School, Endogenous Growth Theory, Sen’s Capability Approach, Modernization and Postmodernization. These were rooted in Functionalist, Weberian and Marxist
perspectives which had concurred on a new cultural logic of capitalism (Cvetkovich and Kollner 1997) interacting with the local. The eventual destabilization of societies globally led to the emergence of new explanations such as Feminism and other post-discourses. The emphasis was shifted to notions of otherness, difference, dualisms, marginality, multiculturalisms and the use of power. (Cvetkovitch and Kollner 1997). After summarizing the prevailing perspectives, the author welds together several strands of the development discourse (various types of capital, notions of assets and vulnerabilities) to develop a more comprehensive formulation.

**Globalization**

Globalization encompasses spatial rearrangements, cross-border interpenetration, technologies, large-scale movements of labour, finance and technologies. Globalization has variously foregrounded information systems, military might, market development and resource expansion while producing economic, technological, cultural and practical interconnections (Croucher 2004). Globalization had been advanced as a panacea for development. However, it has severely reduced the likelihood of ‘evening out’ the benefits to all by precipitating inter-country inequalities, bringing an end to sovereignty of nation states. It was expected to homogenize economies as via the interpenetration of economics,
politics and culture the creation of new markets, new information technologies and the transgressing national and regional boundaries. This occurred and it created institutional forces which produced more complexities, bifurcations and disturbing differentiations (Cvetkovich and Kellner 1997). Such scenarios were further compounded by the fact that individuals, organizations, communities and nations had become further endowed with varying amounts of assets/resources over time and space. However, in most countries, resource mobilization has been poor, severely constrained by different levels and degrees of vulnerability. Globalisation has increased private foreign investments, open market operations, trade and financial liberalization, global dissemination of ideas, technology and investments. As a result of recession and structural adjustment, crises with tremendous social costs were precipitated in Asia and Latin America (Tortora 2000). As a result of rising consciousness of these problems, several counter-globalization initiatives along with waves of resistance have emerged (Hawkins 2006).

**Growth Theories**

There are three versions of growth theories - the Harrod-Domar Model, the Solow-Swan Model and the Romer-Lucas Model. The Harrod-Domar Model posits that growth stability was due to discrepancies between warranted and natural growth rate. The former varies with savings and capital requirements while the latter is a function of labour force and productivity and may yield sustainability. This model
was soon used in developing countries to stimulate savings and investment and it allowed estimates of foreign aid to such countries. The Solow-Swan Model however introduced a variable-capital output ratio into the development equation generating constant returns. This model argues that increased savings would increase output without changing growth rate thus generating higher rates of technical growth. The Lucas version of this model postulates that growth is dependent upon human capital, and in Romer's revised model, greater emphasis was placed on the joint effects of human capital, labour and technology (Ruttan 1998).

Marxism

According to Marxism, societies are characterized by specific means, mode and relations of production through which production of goods and services is maintained. The role of such goods and services generates capital which accumulates across time. As the working classes become increasingly conscious of their level of deprivation, and begin to question the legitimacy of resource destruction, they are moved to ‘rise up’ to rectify the situation. This usually takes the form of a revolution which is often considered to be a means of change and opportunities for development. Neomarxist explanations of underdevelopment provide clues about their views of development, Underdevelopment is said to be
due to continuous outflow of surplus goods from the periphery to advanced economies. This generates slow rates of capital accumulation as a result of unequal exchanges between advanced and peripheral economies. This also removes incentives for industrial development in the periphery (Hunt, 1989).

**World Systems Theory**

The world-systems perspective posits that trade between core (developed) countries and peripheral (developing) countries is controlled by the former. The nature of that control influences the political, economic, technological and ideological systems in developing countries across time (Stein 1999). As a result of population, resource and technological differences, some parts of the world became more or less developed and were labeled as core, semiperiphery and periphery. Centralized administrations became dominant on the basis of controlled exchanges, capital accumulation and investments while peripheral countries provided the raw materials and had weak internal administrations. Semiperipheral economies were more highly developed than peripheral economies but less developed than core economies. This global arrangement that became entrenched meant that all other countries become dependent on core states (Stein 1999).

Critics of world-system theory have argued that (i) several core states had weaker
state machinery than those in the periphery, (ii) strong states have been built on weak bases; and (iii) world systems theory was guilty of generalizing the assumption that semi-peripheral states were weak when, in fact many revolutions occurred in such areas (Stein 1999). This meant that people in the periphery were not helpless victims of core dominance and that Europe was solely responsible for shaping global history and therefore the world-system perspective is guilty of economic reductionism (Stein 1999). Indeed, the view of the world-systems view that this core-periphery is a ‘zero-sum’ game (benefits going only to the core), ignores the possibilities that both regions may benefit and sometimes peripheral countries may benefit more than core states (Stein 1999).

**Dependency Theory**

Neomarxists have argued that forms of dependency have changed and continue to be facilitated by collaboration between upper social classes in the periphery. This has produced increased dependence on aid, trade and investment. Dependence is seen as simultaneously influenced by sale of exports and technological monopolies (Hunt 1989). Some versions of dependency have foregrounded cultural aspects while others emphasize the role of transnational corporations. According to Kari Levitt and Michael Witter (1996), dependency can be used to explain underdevelopment in the Caribbean. Indeed, the Dependency School of George Beckford, Kari Levitt, Lloyd
Best and others foreground dependency as generating persistent economic problems/challenges for developing regions like the Caribbean as had been articulated by Furtado and others for Latin America. These approaches exemplify the role of historical experiences in present development as alluded to by A. Gunder-Frank (1996), foregrounded the centrality of dominant metropolitan influence on development initiatives in the periphery. According to Kenneth P. Jameson and Charles K. Wilber (1996) metropolitan influences are visible in agriculture and industry.

**Modernization**

Modernization constitutes an enhancement of the capacities (political and economic) of countries. As a result of industrialization, such countries focus on their economic growth while achievement and nationalization criteria become dominant and visible. One can also anticipate increased urbanization, labour specialization, educational expansion, changing value-systems and social changes (Inglehart 1997). In this regard, there has been a shift from the Marxist focus on economic issues to a focus on the cultural and ideological dimensions. Some of the criticisms are that societal changes are nonlinear and that the model is deterministic and not facilitative of democracy (Inglehart 1997). In more recent times, modern societies have prioritized knowledge-driven development which is
characterized by emphases on intellectual property rights, knowledge management fuelled by a host of information and communication technologies. There has not yet emerged any comprehensive theory of knowledge-driven development although they have identified the required ingredients for such theorizing (Adhikari and Sales 2001).

**Postmodernism**

According to this perspective, individual agency is unstable and the state and other institutions experience weakened legitimation. Concerns with well-being supersede economic concerns about food, clothing and shelter and postmaterialist values, de-emphasizing achievement, motivation, economic growth nationality and lowering confidence in scientific and technological progress (Inglehart 1997). Postmodernity continues to focus on secularization, specialization and individuality from the modern era but seeks to rehumanize societies (Inglehart 1997). Indeed, postmodernity has peripheralized notions of class, race, gender and nation and contemporary identities are only realized through differences (Bloul 1999). Postmodernism does not believe that it is possible to be rational or objective. They do not believe in any stable sense of self. Moreover, they have not been able to identify the characteristics of postmodern societies as distinct from modern societies. While we may not be able to examine our issues from outside of
our cultural ‘box’, scientific procedures have allowed us to uncover facts and wrong doing and have informed transformation in many societies across time. (Jones 2003).

**Models of Technical Change**

Theories of technological change have sought to explain how new technologies facilitate and enhance the generation of new products and processes while simultaneously triggering economic growth. These theories have emphasized induced innovation, evolution and path dependence (Goel 1999). The induced innovation perspective posits that market forces (consumer demand) drive firms to innovate while technology push innovations are due to know-how of individuals. Evolutionary models postulate that technical changes emerge gradually over time while path dependent models emphasize that current technologies depend on earlier standards (Goel 1999).

Several writers argue that certain factors influence the nature of technological innovations: education; popular support, culture, size of the country and even history. These in fact influence the nature of emergent innovation systems and this latter has implications for technological changes and national innovation policies (Archibugi and Michie 1999). Indeed, the globalization of technology has reduced
the impact of the aforementioned factors to the detriment of mankind. For example, a strong emphasis on this approach produces technological determination thus placing cultural and educational concerns on the 'backburner' of national and regional priorities.

**Capability Approach**

On the basis of a critique of theories of human well-being that foreground (i) opulence and entitlements and (ii) utility and welfare, Amartya Sen advanced a Capability Approach which incorporates areas that were not covered by these approaches- physical, health, literacy and personal security. This theory also emphasizes the importance of what people can achieve with their resources. (Clark 2005: 1341-1343). This approach provides a broader base for evaluating a range of societal functionings. Some have argued however, that Sen's approach should have also included negative functionings in addition to examples of same. (Clark 2005: 1961-1962). This author would also add that a focus on capability expansion does not necessarily produce development particularly if societal changes are generating more vulnerabilities relative to capacity enhancement at different levels of societal functioning – individual, group, community or organizational.
Most of the above theories have accounted for causes and vulnerabilities precipitated by development thus far but mainly in economic terms. In addition, these theories had stimulated research mainly on economic aspects of development. Despite the preceding, some commentators posit that development faces an intellectual and practical crisis (Tucker 2001), needs to be reconceptualized (Sadar 2001) can be better explained by more useful perspectives such as postmodern critical theory or critical holism (Sousa-Santos 2001, Pietese 2001).

The Knowledge Paradigm

Knowledge has become the key to competitiveness as a result of scientific improvements and advancements in information and communication technologies. Technical advances and reduced transportation costs have intensified competitiveness globally. New Goods and services are reaching consumers faster. As prices are depressed, restructuring is an imperative. ??? are facilitating better interaction between governments and the public as different forms of networking are foregrounded. In such a situation, it is necessary that many countries seek to increase overall productivity, develop new alliances and redefine a role for their governments (The World Bank 2000, 11-12). “A knowledge-based economy is
defined as one where knowledge (codified and tacit) is created, acquired, transmitted and used more effectively by enterprises and social development.’ (World Bank 2000, 13). In this regard the emphasis is on education and entrepreneurship. Asian countries such as Korea and China have been able to transform their economies by incorporating the knowledge paradigm into their development policies.

**Sustainable Development Paradigm**

Sustainable development has been variously defined as:

i. that condition in which there is an acceptable growth rate in per capita real incomes without any reduction of national capital assets or that of the national environment.

ii. biomass net productivity as maintained across time and

iii. development that satisfies present needs without depleting that which is needed for the future. Some of central sustainability issues revolve around population changes, food provisions, energy and industrial needs, urbanization and the environment. (Elliott, 1994). Some of the challenges associated are pollution impacts, inequalities in across to resources,
increasing poverty and deprivation. The achievement of sustainable development requires a coordination of the efforts of non-governmental organizations, governments and international bodies in both rural and urban areas. (Elliot 1994). Indeed, development is only sustainable when capacity building efforts at all levels of society begin to gain ground or alternatively, when vulnerabilities are reduced.

**Research Findings**

Many participatory evaluation studies have found strong positive relationships between socio-economic progress and people-centred development. Many have also concluded that other factors contribute to democratic development: individual behaviours, class structures and external and cultural factors (Sanchez and Jesuit 1996). In addition to these factors, Christopher B. Barrett (1997) identified interpersonal trust as critical to economic development. Indeed, living standards and income growth are considered to be strong determinants of savings performance (Hussein and Thirlwall 1999). While many have argued that the state has an important role to play in the development process as in South Korea, Taiwan's and Japan's institutional strengthening and rural growth promotion have been found to enhance the state's capacity in East Asia compared with other developing regions (Grabowski 1998; Boeker 2004). While it has been
acknowledged that there has been much research and support for the trust-economic growth relationship (Yamagishi, Cook and Watabe 1998; Molm, Takahashi and Peterson 2000) growth should be conceptualized in terms of the promotion of savings and exports. (Page 1997).

Further research on development issues has found that increases in foreign investments and exports tended to boost labour productivity (Ramirez 2000). Other researchers have found that foreign capital penetration precipitates long-term negative economic growth (Kentor 1998; Chase-Dunn 1975a; Dixon and Boswell 1996; Firebaugh 1992; Kamara 1998). Industrialization has also been found to contribute to the overall performance of economies and regional patterns (1975-1993) have yielded positive relationships between social sustainability and growth in productivity across many countries (Pieper 2000). The increasing emphases on well-being, work ethic and entrepreneurship in psychology have provided testimonies to the importance of the need for development with a human face (Tropman and Morningstar 1989; Wickrama and Mulford 1996).

With respect to other capital, countries with the highest level of intellectual property rights protection tended to grow the fastest (Gould and Gruben 1997) while the innovation - intellectual property rights linkage was found to be weak in
highly protected markets (Gould and Gruber 1997). Studies done by Johannes Fedderke and Robert Klitgar (1998) found that human rights, political stability and institution strengthening as social capital measures, were positively associated with economic growth. It was also found that institutional capital without relational capital is not beneficial to growth (Krisha 1999).

Indeed the momentum of development initiatives can be carried along by networks, values and kinships systems (Turner 1999). Social capital in its two forms (roles, rules, vs. norms and values) was found to be useful in boosting productivity after government intervention (Uphoff 1999). In fact, there are many commentaries on the relationships between gender and development (Beneria 2003), ethnic identities and development (Bloul 1999; Rupesinghe 1996), religiosity and development (Kelly and De Graaf 1997) and social class and development (Alderson and Nielsen 1999; Gustaffson and Johansson 1999). Commentaries and research on these relationships have been hitherto guided by very little theorizing. Much of the literature on these dimensions have instead focused on issues of identity and conflict (Bangura 1994; Jones 1998) and intergroup contacts (Wittig and Grant-Thompson 1998). In evaluating the contributions of technological changes to development, Rajeev K. Goel (1999) identified problems associated with research and development. Moreover,
technological changes must always be driven and guided by human need and not the other way around.

Research has also found that relationships between industry and academia tend to be more informal than formal through literature, consultancies and recruitment which vary across countries (Senker, Faulkner and Velho 1998) and which has generated long-term strategic alliances (Webster 1998). In most instances, benefits have accrued to universities and industries rather than the wider community of citizens. Such research however do highlight the potential for wider research-development linkages. If real development is to occur and, if it is to be sustainable, then there must be no discrimination between countries. None must be allowed to exploit the other's resources and rights and entitlements would then be more equitably realized. It would then be possible to expand human capabilities in the true sense. (Oxford University Press 1999). Moreover, the global emphasis on opulence and wealth, irrespective of unequal distribution, has had debilitating effects on many economies - Africa, Latin America, South America. This approach ignores the role of fundamental issues like social organization and social justice (Sen and Anand 2003; Ranis and Stewart 2001). For example improved levels of education and health care can contribute to greater economic growth. According to Gustav Ranis and Frances Stewart (2001), '.. ..economic growth should be viewed
as a contributor to it (human development), rather than as the end product,' a view that is supported by T.P. Soubbotina and K.A. Sheran (2000). However, evidence of the mutual dependence of economic growth and human development were unearthed in studies of countries across Africa, Latin America and the Caribbean, South Asia, East Asia and the Middle East by G. Ranis and F. Stewart (2001). The importance of people's participation and the role of social capital were also featured in grassroots development in Karala, India (Veron 2001), Bangladesh (Yumus 1997), Mexico (Cisneros et al. 1997), Malawi (Krishna and Robertson 1997). There has been such consensus on the significance of literacy on shaping our lifeworlds (Gee 2002), education (Birdsall, Ross and Sabot 1997), institutional credibility as recognized in East Asia (Birdsall and Jaspersen 1997) and the need for policies that would enhance human capital (Page 1997). It is quite easy to identify rich and poor countries and therefore it is also easy to state which countries have attained greater economic growth. This does not say anything however about income distribution across groups, quality of health, levels of education, environmental issues, levels of entrepreneurship and consumption (Soubbotina and Sheram 2000). Moreover, since countries pursue different development policies, then their development goals would also vary. Even in countries with high economic growth, other aspects of life have suffered - levels of employment, underemployment, weakened democracy and the absence of cultural identity. The
reality is that poor human development can seriously retard economic growth (Soubbotina and Sheram 2000). In fact, in the contemporary development literature, there has been a shift from purely economic matters to those that highlight social issues. (Choon Heng and Siew Hoey 2000; Taylor, Mehrotra and Delamonica 2000; Rahnema 1997). Illustrative of the argument advanced herein is the fact that the restructuring of Latin American economies, for example, has precipitated issues of identity, normlessness and weakened collective action (Diaz 1997) which have slowed the growth process. In Japan however, social behaviours, belief systems, values and education have significantly fuelled the development of the economy (McMillan 1985).

Ken Boodoo (200, 2), in discussing Caribbean development emphasized that economic growth has brought a high social price in terms of poverty, increased unemployment and income inequalities as exemplified in Latin America and the United States. Previous measures such as that used but the Overseas Development Council (ODC) and the Physical Quality of Life Index (PQLI) acknowledged the significance of physiological, psychological, nutritional, medical, social, cultural and environmental factors in the promotion of physical well-being across the lifespans. (Boodhoo 2000, 7).
Where Do We Go From Here?

Articulated herein is a theoretical and methodological strategy that is rooted in a linkages-of-capital notion in a manner that renders it empirically and analytically useful. The variants of capital (corresponding to the various dimensions of development) used herein are as follows: social, economic, cultural, intellectual and emotional. This discussion focuses on their definitions and their integrated potential for stimulating and sustaining development. It is further argued that these various forms of capital are simultaneously constitutive of an asset dimension and a vulnerability dimension. As a result, a new measure of development is proposed, that is the Asset-Vulnerability Matrix. Indeed this article was stimulated by implicit consensus in the literature that the possession of various capitals can enhance development while their absence has put many countries and communities at risk.

Social Capital

Social capital has been defined in terms of networks, norms and trust which facilitate cooperation and mutual benefits. Evaluation of social capital in a country requires data on family relationships, ageing, immigration/emigration, economic restructuring, changing work patterns/preferences/reforms, attitudes, participation
in formal and informal social institutions, nature of social problems. (Spellerberg 1997). While (on paper) governments' public policy statements reflect the high value that is being placed on social capital development, their actions reflect a prioritizing of materialism and economic concerns. Indeed, the quantity, quality and composition of social capital are influenced by development. (Stiglitz 1999) and so institutional capital required a relational base. (Krishna 1999).

There is unanimity in the view that social networks enhance economic performance at any level. It has been emphasized that social capital is the term used to encapsulate ‘...trust of constituting to a common effort...’ (Solow 1999). Teaching social norms and ensuring that they are upheld are necessary. Indeed, we have to build organizations that can adapt (Solow 1999) or respond to a changing environment. Indeed actions are culturally shaped and reshaped and in the process individuals and group seek to maximize utility. It has been argued for example that economic institutions have traditionally and mistakenly failed to acknowledge the significance of interpersonal relations in producing trust and norm conformity (Coleman 1999). Social capital is antecedent and further fuelled by trustworthiness, obligations, information flows, norms and sanctions (Coleman 1999). While the pursuit of development is important, sustaining it is even more so.
Sustainability has been defined as providing future generations with as much opportunities as present generations (Serageldin 1996b). Such a definition requires that consideration should be given to stocks of capital (human and social) in addition to flows of wealth and income (Serageldin and Grootaert 1999). While the various forms of social capital reinforce each other, it must be noted that different countries require different amounts of social capital at different points in time.

Social capital can be used to facilitate access to resources that would render it possible to increase the production of goods and services (Paxton 1999) and this is manifest in the literature on participation, impact evaluation (Abes 2000; Rutherford 2000), and empowerment (Singh and Titi 1995b). Moreover, if social capital is eroded development advances cannot be sustained (Soubbotina and Sherman 2000). However, social capital, by itself, cannot promote development. This is manifested in the lives of small business people in the Caribbean who possess much social capital and insufficient economic resources or experience difficulties in accessing same. This refers to savings, investments, stocks, shares owned and/or managed by any individual, groups, organization or country at home and abroad.

**Economic Capital**

This is ‘...wealth either inherited or generated from interactions between the
individual and the economy...’ (Reay 2000). In this regard, several studies have unearthed strong interactions between economic issues and social life. For example, A.S. Alderson and F. Nielsen (1999), found that inflow-outflow foreign investment balance tend to influence income inequality changes over time while H. Bartoli (2000) had emphasized that economic approaches had failed and it had become necessary to establish linkages between social, environmental and economic institutions. While the possession of economic capital is necessary and may actually help many (the wealthy) to sustain their levels of living, an escalation of social problems (poverty, unemployment, crime) can seriously undermine individual and collective gains in this area.

**Intellectual Capital**

Knowledge has become a significant social asset. It is currently referred to as intellectual capital, that is, information, experience and intellectual property, which are collectively used to generate wealth (Stewart 1997). Societies are focusing much more on knowledge because of its potential to improve their competitiveness and such knowledge is increasingly concentrated within organizations. The shift from the use of manual skills to intellectual skills has produced so much economic benefits that many companies are investing heavily in brilliant minds. As a result knowledge management is critical (Stewart 1997). Intellectual capital is therefore a
major component of organizational resources. The economic approach for example, has emphasized the significance of accumulation and information processing for decision-making. Another view however sees knowledge as both an input (competence) and output (innovation) in production (Kamara 1998) at the organizational level. Knowledge-driven societies often derive their momentum from the activities of knowledge-based organizations. In the pursuit of development, it is necessary to leverage what is known and use assets in certain directions (Leonard 2003).

**Emotional Capital**

Emotional capital is that stock of resources that children internalize as they interact with their mothers (Reay 1997) and indeed other adults and socializing agencies across time and space. It is manifested in the bonding between families, friends, workers, employers, employees. It varies across gender (Reay 1997), ethnicity, age, religion. It is manifested in time, caring and attention, patience and commitment. As this increases, individuals become more sensitive to each other's feelings. Emotions become much more manageable and emotional intelligence more visible. While emotions permeate all aspects of organizational life, its effects are greatly enhanced in the presence of others. Emotional intelligence help people to take care of self and others and thus putting a human face to development
Cultural Capital

Cultural capital is passed on through family life. It is comprised of ways of thinking, temperaments, meanings, (Reay 1997), and these are reflected in the arts, crafts taste, music and general way of life of a people. Forces of capitalism have over the last few years served to destabilize and in some instances, displaced traditional cultural practices. The ongoing onslaught has triggered the commodification of cultures, viz. '...consumption, production and diffusion...' of cultural products (Lacroix and Tremblay 1997). Culture does not only promote hard work, entrepreneurship, but it also serves to orient us to attach a value to what we can do and what we possess (World Commission on Culture and Development 1995). Cultural capital can be said to refer to ‘...tangible and intangible cultural resources...' that have been accumulated over time and space, some of which have been destroyed or rejected with the advent of modernity’ (World Commission 1995). Cultural capital de-emphasize structural approaches to development in favour of actor-oriented approaches. As countries seek to harness cultural capital (tangible and intangible resources) they should pay attention to diversity, power differentials, literacy level (Carrasco 1994) and cultural management procedures (MacManamon and Hatton 2000). In many developing regions where cultures have
inherited a legacy of dependency, agency diminishes.

**The Linkages-of-Capital Perspective**

These various capitals interpenetrate in varying proportions to determine levels of personality, organizational and community development. This Linkages-of-Capital Approach is conceptualized as a multidimensional phenomenon straddling political, social, religious, economic, educational and cultural spheres of our existence. It is expected that opportunities to enhance capabilities or capacities would be provided and pursued in all these sectors. Moreover, capacities that are utilized or developed could become vulnerabilities while those that are developed would become assets in each of the aforementioned spheres and at the levels of the individual, organization and community, The notion of linkages-of-capital is driven by the fact that all forms of capital need to be simultaneously developed; that these forms need each other to make a greater visible impact on degrees and levels of people's empowerment and that emphasis on these will add much more credibility to the oft-articulated view that the human resource is the most important resource in the development process.

Some of the cross–country developmental requirements are the need to assess the quality of health care, education, crime and poverty in evaluating levels of risk of
various groups and communities. The building of human and social capital is an imperative in reducing the vulnerabilities that are consequent upon political, economic and environmental changes in many countries. In Canada (Shewell 1998), Hong Kong (MacPherson 1998), Netherlands (Duven, Fourage and Muffels 1998), United Kingdom (Silburn 1998), United States of America (Midgely and Livermore 1998), social development strategies to enhance progress are being increasingly emphasized. Similar strategies for social partnering were also proposed by Hans Keman and Paul F. Whitley (1987) to assist advanced industrial societies in coping with their economic crises. Concentrated emphasis on ethnopolitics and state control of cultural expressions have stagnated the development thrust in many countries. Some of the more specific obstacles, particularly in developing countries have been with respect to supply capacity, the absence of export diversification, employment fluctuations, technological capabilities (Noorbaksh and Paloni 1999) and the absence of sectoral linkages.

This perspective posits that development occurs when individuals are able to utilize their assets (categorized as social, cultural, intellectual, emotional and physical capitals) to reduce their vulnerabilities at different levels of societal functioning - individual, group, organizational, community and national. This formulation incorporates but goes beyond Sen’s focus on capability expansion (seen as assets herein), since more or different vulnerabilities may emerge across
time and this may retard the rate of development even as assets (including capabilities are being expanded).

**The Asset-Vulnerability Measure**

According to this perspective, development occurs when individuals, groups, organizations and communities are able to utilize their assets (social, emotional, cultural and intellectual capital) to reduce their vulnerabilities. While Sen’s notion of capability resonates in this theory in the form of assets, this perspective goes beyond Sen’s theory and includes the element of Vulnerabilities. It is being argued that a comparison of both provides a more reliable assessment of development within and between countries across time than Sen’s formulation on capabilities which captures mainly the asset dimension. The rationale for this approach is that intra-individual strengths and weaknesses eventually become manifest at the inter-individual level in different contexts - homes, schools, workplaces. These strengths and weaknesses accumulate at these different levels - individual, inter-individual, groups and workplaces, that is, in different organizations. Indeed the ratio of strengths (assets) to weaknesses (vulnerabilities) at these different levels ultimately shape both our challenges and responses to development opportunities at different levels and spheres of our existence. Such strengths and weaknesses are the constitutive elements of our capabilities: intellectual, social, emotional and
cultural. They direct who we are, where we are going, what we can and will become as individuals, groups, organizations, communities and nations and therefore prospects for development: political, social, economic, social, cultural, religious and educational. Some examples of assets at any level are:

a) technical-vocational skills and achievements;
b) skills and achievements in sports and creative arts;
c) communication and literary skills and achievements;
d) skills and achievements in the use and application of technology to different spheres of activity;
e) social skills;
f) business management and financial skills and achievements; and
g) science-related skills and achievements.

The absence of improvements in these areas can be considered vulnerabilities at any level. The current Asset-Vulnerability measure is rooted in the following arguments:

a) current development measures summarize a few dimensions (e.g. HDI) and do not capture the type of information that could really inform policy and program initiatives;
b) these measures, despite some degree of sophistication, do not capture
changes in the various aspects of development across time and space
e.g. political, cultural, social, economic;
c) there isn't sufficient acknowledgement of the fact that developing
countries have some assets particularly because three-quarter of the
world's resources are in the South where most developing regions are
located and
d) that crime and unemployment rates are already measured in per
capita terms so we can simply extend this practice to include a
country's assets too.

The current conceptualization of vulnerability is in terms of the negative impacts of
society-wide changes on individuals, households and communities in both the
short and long term. Asset-vulnerability measures would not only capture threats
but also the manner in which people use their assets in order to respond to these
threats (Moser 1997). Assets are those values, knowledge, resources, beliefs and
behaviour that provide the potential for a positive response, contemplated or
actually achieved. The measure proposed herein differs from and enhances the
current measures (HDI) in several ways:
a) it takes into consideration differences in sizes of populations;
b) while several measures have targeted three levels of societal
functioning (individuals, households and communities), the proposed measures includes the group-level (gender, ethnicity, social class, religion and age-groups) and the institutional/organizational level (political, economic, cultural, educational);

c) at the various levels of analyses, the status of each unit (individual, group, etc.) is evaluated relative to the various capitals (social, cultural, etc.);

d) the Asset-Vulnerability Matrix (AVM) can be converted into an Asset-Vulnerability Ratio (AVR) relative to population sizes of different countries;

e) it provides for more meaningful evaluations of intra and intersectoral growth;

f) it improves to a greater degree the reliability and validity of development measures;

g) it provides (for the various AVMs) a listing of major assets and vulnerabilities

h) it allows for the development of Asset –Vulnerability Matrix (AVM) tables for individuals, community, household and institutions.

i) asset and vulnerability measures are to be determined per 1000 persons in the population.
As the development matrices (Table I and II) indicate, assets and vulnerabilities can be quantified for each form of capital at different levels of societal functioning. These measures can, for example, be computed across a sample of individuals, communities, households and/or institutions within a specific country with a given population size. Similar quantitative assessments can be obtained using this Asset-Vulnerability Matrix in other countries. Population-Assets ratio at various levels (individual, community, etc.) can then be computed and compared. Similarly, population-vulnerability ratios should also be computed and compared for the identified levels across countries. This approach would facilitate more realistic notions, comparisons and determinations of the development status of countries. We may eventually realize that our current categorizations of underdeveloped, developing and developed are flawed. Indeed, we may realize that the ratio of
social to economic development in America (given America's population size),
may be larger than the ratio of social to economic development in another country
that has been currently classified as developing.

This proposed measure is much more comprehensive than those that have been
used thus far viz. basic needs, HDI and others. Such comprehensiveness is
necessary if we are going to capture the phenomena of development which is
multidimensional (political, economic etc.) and multilevel (groups, households
etc.) each of which changes over time. Previous and current measures tend to be
simple and fairly useful but did not provide decision-makers and citizens with
information about, for example, the status of various groups (gender, ethnicity,
etc.), politically, socially, economically, culturally relative to population sizes.
Moreover, they were based on a false assumption that developing countries must
follow the path to development that was taken by developed countries which, in
reality, is not necessary. For example, Caribbean countries would never need the
wide range of technologies used in the United States (viz. military, aerospace)
because of the needs of both differ given their geopolitical status. As a result,
development comparisons of both are unfair. Development measures can therefore
only be fair relative to the population size of the country and for comparative
purposes the (AVR) Asset-Vulnerability Ratio must be stated along with the
population size bracketed.

Similar measures can be conducted with other groups in the society, households, communities and institutions. Indeed, the Assets and Vulnerabilities of males and females, different ethnic religious groups can be tabulated as shown below. These entries could then be used to generate Asset-Vulnerability. Population-Asset and Population Vulnerability Ratios in addition to cross-country comparisons. Moreover, current global development indicators can be subsumed under the appropriate category.

Some proposed indicators of the various capitals are identified and used in the summary tables below:

a) economic capital – income and wealth;

b) cultural capital – performance and participation in cultural celebrations;

c) intellectual capital – levels of academic achievement at primary, secondary and tertiary levels;

d) social capital – the amount participating in social programmes.

Each of the above can be categorized as high or low.
Of relevance to development are:

i. that low average income render individuals increasingly vulnerable to poverty and its consequence;

ii. that low levels of academic achievement have consequences for one’s career path;

iii. that low levels of participation in social programs reduce the likelihood of social development;

iv. that low levels of participation in cultural programs reduce the likelihood of cultural identity.

For better interpretations and analyses, these factors must be examined in combinations, not separately.
<table>
<thead>
<tr>
<th>m/f</th>
<th>Economic</th>
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<th>Intellectual</th>
<th>Social</th>
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<td>Index:</td>
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<tr>
<td>AVR (Pop)</td>
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<table>
<thead>
<tr>
<th>M/F : male/female</th>
<th>HL : High Level</th>
<th>LL : Low Level</th>
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<tbody>
<tr>
<td>H/P : High performance</td>
<td>LP: Low Performance</td>
<td>AVR: Asset-Vulnerability Measure</td>
</tr>
<tr>
<td>Asst. : Assets</td>
<td>Vul.: Vulnerabilities</td>
<td>Soc. Pro. : Social Programs</td>
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**Table II: Gender x Levels of Development**
<table>
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<th>Social</th>
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</table>

| Individual | | | | |
| Community | | | | |
| Household | | | | |
| Institutional | | | | |
| Index : AVR (Pop) | | | | |

eth: ethnicity; Asst.: Assets; Vuln.: Vulnerability; AVR: Asset-Vulnerability Ratio

Table III: Ethnic Groups by Levels of Development
<table>
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<th>Intellectual</th>
<th>Social</th>
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<td>Institutional</td>
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<tr>
<td>Index : AVR (Pop)</td>
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Rel.: religious persuasion; Asst.: Assets; Vuln.: Vulnerability; AVR: Asset-Vulnerability Ratio

Table IV: Religious Persuasion by Levels of Development
It is being argued that this measure provides more fairness along with a more balanced measure of development. For example, the previously all-powerful role of technology in development was too deterministic providing little space for interactions between people, the role of other resources and agency and produced one-sided development. Similar criticisms were made of economic modeling (Zafirovski 1999).

While one cannot deny the contributions of knowledge to the development of organizations and economies, current conceptualizations posit knowledge as a commodity that only exists among the elites of a society, academia, business, politicians, economists, lawyers and others (Lloyd 1997). It must be noted that others (non-elites) are also well informed thus the cry for 'bottom-up' approaches to development. In addition, knowledge proponents have ignored the importance of emotions and should be warned that history can attest to dire consequences to humanity which results from the separation of reason and feelings. It should also be noted that these approaches do not capture the inherent dynamism of development. In addition, conceptions of sustainability do not have people as their central concern (Ul Haaq 1995), but focus very much on the environment even though people are expected to take care of the environs. Also, conservative economics has not dealt with how the world really works (Nell 1984), since
markets are much more diverse than economists would care to admit (Rapley 1996).

Development approaches, for quite a long time, had been oriented towards reducing poverty or meeting the basic needs (Dell 1991). Basic needs however are differentially interpreted across countries in addition to problems with its measurement and implementation (Dell 1991). Poverty-driven strategies had been hampered by the fact that poverty of many countries has been assumed, that poor people can also be found in developed countries and that both these approaches would allow developed countries to ignore some of their international obligations (Dell 1999). Embedded in the approach of sustainable development are tensions between improvements in well-being and progress in environmental conservation, the argument being that they do not co-occur (Quizilbash 2001). Most importantly, development perspectives to date have not taken into consideration country differences in population size. Since development is really people-centred (as it should be), research and measurements of the gender, ethnic, social class, religious and educational dimensions of development ought to be incorporated and be available for intra-and inter-country comparisons. Pulling together the literature on capital information, not only economic, but social, cultural, intellectual and psychological, would allow us to achieve this. Therefore developing countries do
not have to attempt to 'catch up' with developed countries because both groups have different needs and therefore the nature and range of their investments would differ. This argument provides another rationale for adopting the measure proposed herein. Embedded in this approach is a means of realizing a more comprehensive approach to the evaluation of the development status across countries (Richardson, Powers and Guignon 1999). As such, enhancing societal orientation to restorative justice - amending relationships, repairing social injury, accountability, acknowledging debts to communities - becomes a distinct possibility (Hahn 1998). This approach therefore facilitates in the long term the removal of what Amartya Sen (1999) referred to as ‘...major sources of poverty...poor economic, opportunities as well as systematic social deprivation...’ The freedom-enhancing perspective of development (Sen 1999) therefore resonates in the aforementioned definition. Anthropological criticisms of traditional developmental models have revolved around the views that their foci are either purely economic, technological or commodity-centred and, as a result, it is imperative that researchers begin to focus on ‘... the patterns of social organization within with social actors act.’ (Cemea 1995). This position also resonates in the perspective advanced therein.

Development then must be pursued at different levels of social organization - individual, group, organizational and community. While the various capitals may
exist in different combination at each level they must be linked across levels for real development to occur. The need to be concerned about equity and justice must become a larger concern than the implementation of tested monetary and fiscal policies (Wolfensohn 1999). Indeed, this definition also converges with the arguments S.N. Durlauf and P. Young (2001) that economic approaches must now consider the underlying social and psychological aspects.

According to this conceptualization, the notion of linkages-of-capitals also allows us to account for, monitor and determine the extent to which all countries (developed, developing and underdeveloped) are aware of and are using their strengths and weaknesses within any one sector, across sectors within levels (viz. organizational, community) and across all levels collectively in relation to changes in population growth.

The asset-vulnerability combination can be used to differentiate between developed, developing and underdeveloped countries more comprehensively and thus ascertain overtime when a particular country has changed its status from developing to developed relative to changes in population growth of the specific country. It can also be used to ascertain whether too much emphasis is being placed on some aspects of the economy (i.e. one-sided development) to the detriment of
others thus generating asymmetries in development. Across time various Asset-Vulnerability indices can be used to 'shed light' on the levels and domains of sustainability defined as the capacity of all people to maintain certain levels of living socially, culturally, emotionally, politically, morally spiritually and environmentally. Indeed, greater increases in assets (various capitals identified) vis-a-vis vulnerabilities despite gender, ethnicities, social class, level of education and/or religiosity would constitute a real improvement in the quality of life of people. Moreover, the maintenance of this state of affairs over a period of time would place countries on the road to achieving sustainability.

**Conclusion**

Indeed the traditional mantra about the fulfillment of human capacity requires that we establish synergies within and between the various capitals. Synergies are defined as symbiotic relationships that are complemented by and embedded within each other (Evans 1999). This is particularly important now as the need for intersectoral linkages loom larger (Thompson 1992) within and across countries. It was posited that sustainability, (reflected in the maintenance of a minimum level of living across time) is only achievable when the Asset-Vulnerability ratio across time remains skewed in favour of Assets. In terms of this Asset-Vulnerability approach, sustainability would also require that policies and programs facilitate an
increase in or maintenance of the assets of all groups individuals, organizations and communities in the various domains and levels identified in this perspective. This new definition and measurement captures:

a) the various dimensions – political, cultural, social, educational, religious;

b) the various levels – individual, group, organizational, community and national along with;

c) ethnicity, gender and social class with respect to social, emotional, cultural and intellectual capitals. Collectively, these provide fairer, fuller and more reliable measures of development.
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