
Corporations and Capitals

A Framework for Evaluating the Impacts of Transnational Corporations in Developing Countries

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The purpose of this paper is to present a new framework for evaluating the impacts of transnational corporations (TNCs) in developing countries. The framework is based on emerging frameworks in development studies and geographic research that assess how TNCs affect local resource access and livelihood change in developing countries. The paper argues that households are the primary local-level stakeholders in developing countries and that new research should evaluate how TNCs affect a diversity of resources that households access, including produced, human, natural and social capitals. The paper further argues that employing a broader framework and household analysis will enable more comprehensive analyses of TNC impacts in developing countries and shed light on the effects of new forms of TNC social and environmental strategies and investments.

- Developing countries
- Transnational corporations
- Livelihoods
- Resources
- Development

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THE DEBATE OVER THE IMPACTS OF TRANSNATIONAL CORPORATIONS (TNCs) IN developing countries is probably best characterised as a tumultuous and highly charged debate between different theoretical positions. This debate is also grounded in a long history of corporate involvement in developing countries from colonial empires and pre-capitalist market structures to the present international system comprising highly complex and sophisticated nation-states and a truly global market for many goods and services. While the debate over TNC impacts on developing countries has evolved over time and scholars have generated a vast amount of empirical literature, in many cases it has been heavily discounted due to the rhetoric of scholars and the ideological motivations prompting many studies.

Over the course of the past decade, while the general debate over the impacts of TNCs on developing countries has diminished in intensity, the focus of many scholars has shifted to questions of the role of TNCs in sustainable development and how environmental and social considerations are changing TNCs' behaviour in developing countries. Many of these debates focus on the social and environmental responsibility of TNCs in developing countries. In order to evaluate how TNCs are affecting not only the overall economic advancement of developing countries, but also the social, environmental and human fabric of developing societies, a broader conceptual framework is needed that focuses on a diverse array of possible TNC impacts in developing countries. In addition, in order to illustrate the specific impacts of TNC activities, a different scale of evaluation that includes the people and stakeholders of developing countries, such as households, is necessary.

The purpose of this paper is to, first, briefly review the theoretical development of the debate over TNC impacts on developing countries in order to illustrate how different schools of thought have focused on different types of resource impact and to highlight the need for a more synthetic approach that includes a comprehensive set of indicators. Second, this paper presents a comprehensive framework for evaluating the impacts of TNCs on the produced, human, natural and social capitals in developing countries. In addition, it is argued that the impacts of TNCs should be evaluated in relation to those capital resources that households access to produce their livelihoods, as households are key stakeholders in local TNC activities. Third, the paper conceptually defines the elements of each capital resource (produced, human, natural and social) and argues why linking the household level of analysis to each capital concept is both useful and an important contribution to the overall debate of the impact of TNCs on developing countries. Finally, the paper concludes with a brief discussion of the complexity surrounding studies of this nature and suggests new avenues for future research.

The debate over the impacts of TNCs on developing countries

The debate over what types of resource in developing countries are affected by TNC-led foreign direct investment (FDI), and in what ways, has been the central tension point in the overall question of whether TNC investment efforts are beneficial or deleterious for developing countries. While theories seeking to evaluate the effects, both positive and negative, of TNCs have focused on a variety of different resource transformations, their multiple foci have changed substantially over time. In addition, one striking characteristic of the past several decades of this very heated and sometimes bitter debate is that many scholars have focused on a limited set of resource impacts, thus excluding a more comprehensive evaluation. Attempts to move beyond the bitter rhetoric of the debate, without ignoring the important contributions of past research, need to accommodate a wider set of variables. The purpose of this section is to briefly survey how the debate

over TNCs in developing countries has progressed over the course of the past several decades in order to identify, albeit rather broadly, a more comprehensive set of resource impacts that needs to be evaluated in future research.

Historically, proponents of TNCs and FDI flows have primarily focused on the positive economic impacts of TNCs in developing countries because, they maintain, the introduction of economic resources into developing countries leads to national economic growth (Vernon 1968; Freeman 1981). This perspective has been influenced by development economists such as Arthur Lewis who argue that capital accumulation is a critical precursor to economic growth and expansion and that 'nearly every developed state has had the assistance of foreign finance to supplement its own meager savings during the early stages of development' (Lewis 1955: 245). Proponents of TNC-led growth, then, following the notion that foreign economic resources stimulate economic growth in developing countries, have argued for free and competitive markets that facilitate the introduction of foreign capital, which supposedly leads to more efficient and rapid economic growth (Graham 1991).

In contrast to the pro-FDI perspective, yet still focusing on the economic impacts of TNCs, scholars utilising the dependency perspective have argued that TNCs affect economic variables negatively. There is considerable differentiation in dependency perspectives on the structure of the international capitalist system and how the 'core' countries exploit the 'peripheral' countries (e.g. Cardoso and Falletto 1979; cf. Baran 1957). However, generally, dependency scholars such as Celso Furtado have highlighted the historical integration of developing countries into the global capitalist system, the rise of TNCs and the subsequent international division of labour that results in foreign indebtedness, worsening balance-of-payments problems, capital monopolisation and economic impoverishment (Furtado 1970).

Scholars utilising the dependency perspective have also argued that TNC-led FDI has had significant social consequences; this has effectively expanded the debate over TNC impacts to include human and cultural variables. For example, Frank argues that the colonial and neocolonial relationships between the metropolis and the periphery have exacerbated social inequalities, destroyed traditional agricultural structures, displaced local businesses, created massive unemployment and crushed local cultures (Frank 1974).

In recent years, the controversy surrounding the impacts of TNCs on developing countries has diminished in terms of the bitter rhetoric and heavy discounting of empirical evidence used to justify various positions. Peter Evans argues that the controversy has diminished because whether or not TNCs are optimal instruments of development is a moot point because in a globalising world 'no Third World country considers excluding them' (Evans 1998: 195). In addition, much of the attention surrounding the impacts of FDI has turned to cross-investment among advanced industrial countries (e.g. Graham and Krugman 1993) because most FDI is concentrated in developed-country economies. However, many of the traditional economic debates have again been taken up in a recent edition of *World Development* (1998) devoted exclusively to a discussion of international capital flows and development. Thus, it is probably more appropriate to argue that, while much of the debate has been either silenced by the reality of globalisation or redirected to developed countries, interest in the impacts of TNCs in developing countries has yet to be extinguished. Indeed, some research has begun to adopt a more comprehensive analytical perspective that accommodates a broader set of impacts that TNCs have on developing countries. These approaches include new ways of examining the environmental and social impacts of TNCs on developing countries.

The emergence of environmental concerns have reconfigured the debate to include how and in what ways natural resources are affected. Early work on this issue emerged

in the late 1980s (Pearson 1987) and the Earth Summit conference in Rio de Janeiro in 1992 elicited a massive response by business scholars on the changing role of TNCs in environmental affairs (e.g. Schmidheiny 1992; Hawken 1993; Cairncross 1995). Today, the environmental impacts of TNCs has become a vigorous research theme undertaken by both scholars and civil society groups concerned with environmental degradation in developing countries.

Recent research has also highlighted social impacts through analyses of new 'stakeholder' models of sustainable development (e.g. Beckenstein *et al.* 1996). In addition, recent theorising on the social underpinnings of economies suggests that transitions to market economies in many developing countries are often dependent on the social networks and institutions on which the market depends for its basic elements (Platteau 1994a, 1994b). Thus the impacts of TNCs on the 'social capital' of developing countries should be another important consideration for researchers (Evans 1996).

Overall, these new perspectives on social and environmental resources suggest that not only do the concerns of past debates need to be evaluated by scholars, but natural and social impacts must also be considered as part of any comprehensive analysis that attempts to evaluate the impacts of TNCs on developing countries. The need for studies evaluating a more comprehensive array of TNC impacts has been recognised by scholars in international business studies (e.g. Dicken 1994; Caves 1996; Saari 1999; Wells 1999), but few frameworks have been proposed to move the debate forward. The following section introduces one such possible framework.

A framework for linking corporations, capital resources and household livelihoods

The evolution of the debate surrounding TNC impacts on developing countries over the course of the past few decades suggests a need for new analytical frameworks that comprehensively treat the diversity of TNC impacts based on a diversity of resources including economic, human, natural and social elements. This will not only allow for the evaluation of the economic impacts of FDI in developing countries, but also allow for a comparative and dynamic framework in which the human, environmental and social impacts of TNC activities can be illustrated and evaluated. This section introduces the concepts of capital resources as part of a conceptual framework for more comprehensively evaluating the impacts of TNCs in developing countries.

In addition, this section argues that there is also a need to evaluate the impacts of TNCs at the local level. This will allow new research to illustrate the experiences of stakeholders in TNC activities in developing countries. One way of accomplishing this task is by directing attention to household-level analyses. This section introduces the household as a unit of analysis and provides a series of arguments for why this level of analysis is useful in this debate.

Capital resources

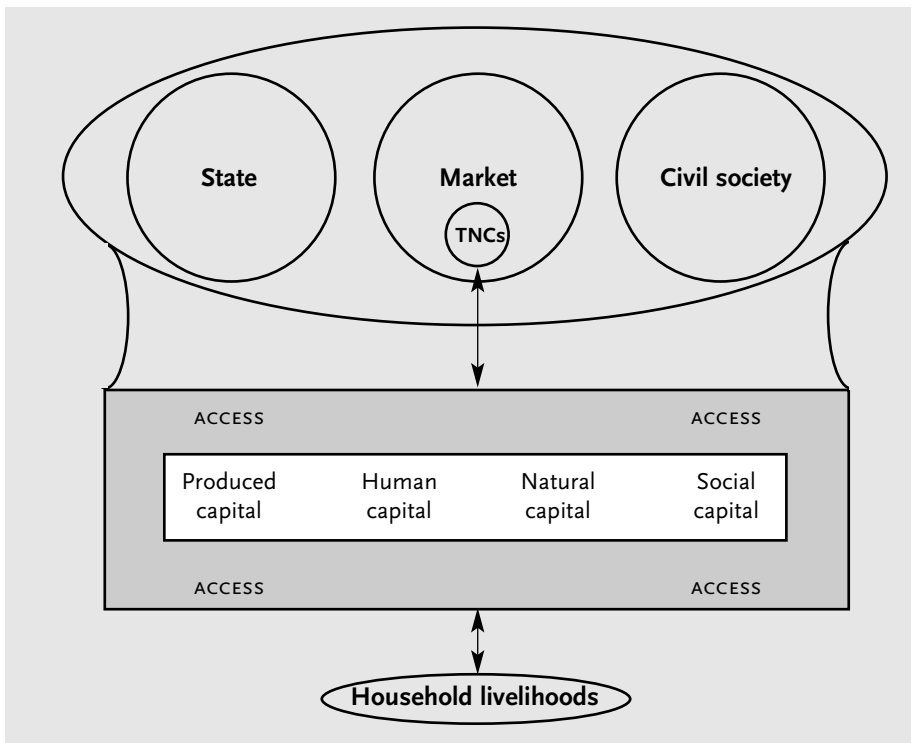
One way of conceiving of the resources that TNCs affect is through the use of 'capital' terminology. Capital, as it is understood in traditional economic discourse, can be defined as 'anything which yields a flow of productive services over time' (Herfindahl and Kneese 1974). If capital does indeed yield a 'flow', then it must also reside in stocks or reserves that can be decreased or increased through some sort of activity. Because TNCs introduce

a host of capital resources into developing countries (i.e. technology, employees, monetary resources) and subsequently utilise the resources of developing countries (i.e. labour, natural resources, local suppliers) through economic activities, the relationship between TNCs and host countries can effectively be thought of as the interrelationships between different forms of capital.

Combining capital terminology with the various theoretical foci discussed in the previous section accommodates not only the important and disputed impacts of past debates, but also new research on natural and social impacts. A framework in which all of the impacts of FDI flows in developing countries are considered must include the economic, or **produced**, capital of developing countries, as well as the **human, natural and social** capital resources. Figure 1 illustrates this conceptual separation of the different resource impacts of TNC-led FDI in developing countries.

While it is possible to consider the effects of TNC operations in developing countries in terms of many different capital resources in addition to those discussed above, recent development-oriented studies utilising this fourfold division of resources argue that it is useful for evaluating local-scale change and interaction with actors such as TNCs at larger scales. For example, Serageldin and Steer argue that sustainable development efforts need to recognise these four types of capital to ensure ‘that future generations have as many opportunities that we have’ (1994: 30). Similarly, Bebbington and Perrault (1999) utilise a capital framework to illustrate the formation of social capital and its effects on resource access and livelihoods in highland Ecuador. Furthermore, Bebbington (1999) and Scoones

Figure 1: RESOURCE IMPACTS OF TNC-LED FDI IN DEVELOPING COUNTRIES



(1998) propose that the four-capitals framework is a useful approach for evaluating both the capability of people to produce meaningful livelihoods and their ability to access changing capital resources as their livelihood strategies evolve.

The use of capital 'language' to identify the various types of impact of TNCs does have shortcomings. By considering all natural and human resources as 'capital' that can be determined and therefore exchanged, decreased or increased does little justice to many intangible assets of human interrelations. However, the use of various types of 'capital' for the purposes of the proposed framework does provide an important heuristic that delivers a more comprehensive set of indicators as well as a broader realm of analysis of the impacts of TNCs.

TNCs and household livelihoods

The ways in which TNCs affect developing countries are conditioned by a variety of actors at different scales and over time (e.g. states, international institutions). One way of conceptualising how different actors affect TNC access to resources is by analytically separating these actors into different 'spheres' (Fox 1996), which include state, market and civil society actors (see Fig. 1). Bebbington (1999) points out that each of these spheres operates according to its own logic in terms of different sets of rules governing access to resources and also in terms of which actors aim to influence those rules. TNCs, as one type of market actor, influence and are influenced by other actors both within the market sphere and from the state and civil society spheres, yet they clearly operate under their own form of logic, which is conditioned by a distinctive set of rules governing their operations. Thus, TNCs are likely to have a distinctive form of interaction in developing countries that sets them apart from other market and non-market actors.

If indeed TNCs have a distinctive form of impact on developing countries, they therefore access resources and affect access to resources for other actors in developing countries differently. At the local level, these actors are often stakeholders in TNC operations and are primarily households. By linking the activities of TNCs and households through an evaluation of changing access to local capital resources, it is possible to explore the relationships between TNCs and households (see Fig. 1).

The household can be conceived of as the basic structure through which market and non-market relations are articulated, as a basic unit of civil society and as the primary link between human productive activities and the environment. Indeed, as Masini (1991: 4) argues, the household is the 'primary social living unit in which are encapsulated a cluster of activities that function within the broader organisation of the environment and of the community'. Households have commonly been defined as 'a residential group of individuals living under the same roof and eating out of the same pot' (Freidmann 1992: 46).

Households produce livelihoods by accessing and transforming resources. Consequently, TNC-led FDI affects *which* resources households access in the pursuit of livelihoods. Livelihoods can be considered as the method of production or of satisfying material wants (Polanyi 1977). Thus households engage in productive strategies that rely on the conversion of basic resources such as produced, human, natural and social capitals into the satisfaction of not only basic wants such as food and income, but also in ways, as Bebbington (1999) suggests, that enable them to engage 'meaningfully' with the world.

TNC-led FDI also affects *how* households access resources. TNCs condition through multiple forms of impact different resource combinations that households access. This conditions the nature of household transformation of resources and what strategies household decision-makers pursue. How households access resources is a central question of

the emerging field of political ecology and in development-oriented literature. Political ecology research addresses questions of access in a variety of different ways. For example, Blaikie (1985) and Hecht and Cockburn (1989) argue that class relations affect household access to resources significantly. In more development-oriented work, Leach *et al.* (1997) conceive of access in terms of ‘environmental entitlements’. This idea combines access or ‘claims’ to capital resources with the ability to make use of them in the production of livelihoods. Furthermore, work on common property regimes also focuses on how individuals and groups access natural resources through local institutional arrangements (Ostrom 1990). By focusing on how TNCs alter the capital resources that households access in developing countries, new research can build on political ecology and household-oriented research by demonstrating how TNCs condition access to resources.

If households are linked to the debate over the impacts of TNCs in developing countries, then studies utilising this conceptual framework can provide a number of important contributions to the discussion. First, the specificity of the framework allows for analyses to highlight the impacts of TNCs on specific geographic localities and stakeholder households affected by TNC operations. This can generate in-depth empirical analyses that focus on how the relationships between TNCs and households are evolving over time and how particular livelihood strategies respond to TNC-led FDI. Second, linking the household unit of analysis to the debate over TNC impacts can complement both specific and aggregative studies that seek to evaluate the national-level impacts of TNCs. Decades of empirical research have been compiled on the positive and negative impacts of TNCs on developing country economic, political and social affairs, yet intra-country comparisons across regions and localities are relatively sparse. Third, linking the household unit of analysis to TNC impacts can illustrate how different types of corporation involved in different business activities affect developing-country capital resources and household livelihoods differently. Fourth, household studies can also highlight how different actors from different spheres both singly and in combination (state, market, civil society) affect TNC and household access to resources. Finally, this approach can highlight increasingly innovative TNC business activities, such as ‘socially and environmentally responsible’ practices, that substantively contribute to local, regional and national development efforts directed towards poverty alleviation and participatory development. This will allow for non-deterministic analyses and highlight what Booth (1994) calls ‘spaces for change’, or interfaces between global and local actors in which TNC activity is changing and being changed.

Linking corporations, capitals and households

The previous section proposes a framework that links the impacts of TNCs in developing countries to the livelihood activities of households. Conceptually, the relationships between TNCs and households are linked by evaluating how TNCs affect household access to the produced, human, natural and social capital of local areas.

This section defines the elements of each capital resource (produced, human, natural and social) and argues why linking the household level of analysis to each capital concept is both useful and an important contribution to the overall debate. In order to accomplish this goal, the relevant literature for each type of capital impact is more extensively reviewed in order to demonstrate what types of indicator have been utilised in past research and what types of indicator might be useful in future research. Finally, each section links the household to capital resources and explains what advantages local-level analyses can offer to researchers evaluating the impacts of TNCs in developing countries.

Produced capital

Perhaps the most extensive research on the impacts of TNCs on developing countries revolves around the economic effects of TNC business activities, which have largely been described in terms of financial and infrastructural assets. The conventional perspective of development economics that emerged in the post-Second World War period viewed TNCs as the vehicles of economic growth because they introduced technologies, capital and employment into developing countries and fostered indirect 'complementarity' effects through business relationships with suppliers and subcontractors. The neoclassical economics perspective, in conjunction with modernisation theories of development, argue that TNCs positively affect produced capital in developing countries, which generates economic growth and higher levels of income (Lewis 1955; McCormack 1980; Freeman 1981).

Each of these produced capital impacts has been extensively debated in the literature. Technology transfer is one of the most important economic impacts in developing countries; technological innovation and increased production are central components of economic growth. Debates over the economic effects of technology transfer address questions of balance-of-payments (Wilkins 1974; Vaitos 1974; cf. Chudnovsky 1982) as well as the 'appropriateness' of technology transfer for economic growth in developing countries (Lall and Streeten 1977; cf. Bergsten *et al.* 1978). The effect of capital introduced by TNCs into developing countries has also been a central focus of the debate; this capital can supplement domestic savings and contribute to domestic capital formation, or as Lall and Streeten (1977) argue, TNCs can appropriate local capital for their own use. As Jones (1996) clearly illustrates, TNC operations create employment in host economies. However, debates about the impacts of employment generated by TNCs in developing countries have focused on whether or not TNCs are actually creating jobs through their operations (Meller and Mizala 1982) or, as scholars from the dependency perspective maintain, eliminating more jobs than they create (Muller 1973). Illustrating the 'complementarity' effects of TNCs on local contractors and suppliers has proved to be an extremely difficult undertaking. Lall (1980) refers to these effects as 'linkages' by firms in complementary activities, and suggests that in some cases they are substantial; yet Newfarmer (1985) argues that developing-country export production does not substantially increase. In addition, Casson and Pearce (1987) argue that backward linkages between TNCs and local suppliers do not occur frequently.

Aggregative studies using general indicators such as gross national product (GNP) and distribution of income have also evaluated the impacts of TNC-led FDI on produced capital in terms of economic growth. Critics of the neoclassical approach, who utilise extensive regression models in their analyses, argue that FDI inhibits developing-country growth in the long term and that it is associated with a worsening income distribution in developing countries (Bornschieer *et al.* 1978). However, these claims have been challenged on both methodological and empirical grounds by scholars who argue that the regression models are flawed (Caves 1982) and that FDI is positively associated with growth in many sectors (Rothgeb 1984). Overall, the findings for aggregative studies based on regression analyses have produced mixed and inconclusive results.

Linking the impacts of TNCs to the produced capital of households at the local level will illustrate a number of important processes and can generate a number of useful indicators for evaluation. In terms of technologies, local-level analyses can examine how the introduction of new technologies affects the production of household livelihoods and the ways in which these technologies are accessed. In addition, a local-level approach can explore issues surrounding the 'appropriateness' of the technology that TNCs introduce into developing countries. In terms of capital flows, a local-scale analysis can assess the flows of capital into households and communities as well as access to capital such as financing. The employment effects of TNCs can also be examined at the local level in terms of

both employment opportunities and the ways that TNC employment strategies affect or transform livelihoods in different business sectors. In terms of linkages, a local approach can clarify the relationships between TNC activities and 'complementarity' effects by focusing on local regions in developing countries. Finally, a local-scale approach can complement aggregative studies by examining local-level economic growth as well as distribution of income.

Human capital

Beginning in the early 1960s, researchers became increasingly occupied by discussion over the 'human' element in development and how TNCs were affecting these resources. In a landmark study, Schultz (1964) argued that the capabilities of people, like other capital goods, are produced. Subsequently, scholars began to consider education, on-the-job training and health as important elements of human capital (World Bank 1990; Strauss and Thomas 1995).

The debate over the impacts of TNCs on developing countries has focused on the educational component of human capital in terms such as research and development (R&D), the transfer of managerial techniques, employment and training, and the fostering of entrepreneurial skills. With regard to R&D, Jones (1996) argues that in many cases TNC operations have hindered the development of local education and technological innovation by driving out local competitors. However, he also maintains that, through joint ventures and licensing arrangements, many developing countries have benefited greatly in educational skills. The transfer of managerial skills to developing countries, according to Moran (1974), is based on the argument that the skills and practices of TNCs such as accounting and marketing greatly elevate human capital levels. Debate over employment and training has also focused on the different employment terms and training programmes, conditions and practices of TNCs, as well the effects of their labour practices on gender and class differences (Jones 1996). In terms of the fostering of entrepreneurial skill, Buckley and Casson (1991) argue that TNCs foster a 'highly entrepreneurial culture', which affects human capabilities significantly.

How TNCs affect the health component of human capital has only recently begun to emerge as an important element of the debate. Recent studies emphasising health, such as the Brown *et al.* 1993 study of the impacts of technology transfer on health for several corporations, highlights this importance. Other research argues that the health impacts of TNCs must be considered in the overall debate over TNC impacts as they are critical elements of sustainable development (Burayidi 1994; ISWG of UNCSD 1998).

Linking the impacts of TNCs to households in developing countries in terms of human capital is critically important in order to assess indicators of both education and health. For example, household-level studies can illustrate the effects of employment and training programmes initiated by TNCs as well as the changes in health among households in communities where TNC operations begin. In addition, both the inclusion of human capital as a concept in the overall capitals framework and the focus on households will enable evaluations of how new forms of 'social' responsibility in the form of health and educational services are affecting local households surrounding TNC operations. Utilising a local-scale analysis and human capital approach will substantively enlarge the debate over the impacts of TNCs in developing countries.

Natural capital

While produced capital and human capital concerns have been utilised in development planning and as part of the debate over TNC impacts in developing countries for many

years, the concept of natural capital has only emerged over the course of the past decade. Previous research has focused on environmental resources, but the notion that the environment can be conceived of as a capital resource is relatively new to the field of environmental economics. Increasingly, scholars have come to recognise that ecological assets and services are critical to development and for evaluating how TNCs affect developing countries. Natural capital has largely been defined as consisting of two major elements:

1. Non-renewable resources such as oil, coal and minerals
2. Renewable resources such as ecosystems (Costanza and Daly 1992; Barbier 1994)

Overall, natural capital provides resources and services on which TNCs rely in their operations and, in many cases, such as in natural resource extractive industries, it is the primary incentive for TNC-led FDI in developing countries.

The debate over TNC impacts on environmental resources has evolved simultaneously with the larger discussions of environment and development and sustainable development (see WCED 1987; World Bank 1992). In the early 1960s, for example, Kapp (1963) illustrated the national impacts of business enterprises on natural capital resources: air pollution, water pollution, deforestation, soil erosion and petroleum and coal depletion. By the 1970s, a number of issues such as pollution control and environmental planning emerged in the TNC debate (Gladwin and Walter 1976). In terms of pollution control, a number of studies concluded that, while TNCs had developed formal written statements of objectives and policies concerning pollution control, most of them were intended for home-country operations rather than developing countries. In addition, it was argued that most TNCs had not been successful in adapting their performance measurement, evaluation and reward systems to handle issues of environmental protection (Gladwin and Wells 1976; Gladwin and Walter 1976). In terms of environmental planning, TNC environmentally oriented industrial planning was still in its infancy in the 1970s owing to lack of ecological and social data (Gladwin and Royston 1975).

In the 1980s, a number of case studies profiling TNC environmental planning activities and their relationship to economic development surfaced in the debate over natural capital. A number of these studies focused on the relationship between TNCs and developing countries and natural resource negotiations (Pintz 1987), tropical deforestation (Gillis 1987) and pesticide production (Goodman 1987). In addition, environmental concerns and development issues began to enter the debate (Pearson 1985).

Following the Earth Summit meetings in Rio de Janeiro in 1992, the environmental resource impacts of TNCs emerged as central concerns in the debate over TNC impacts in developing countries, primarily through the formation of the World Business Council for Sustainable Development (WBCSD). Stefan Schmidheiny, originally involved in the Rio conference and subsequently the head of the WBCSD for several years, argues that the role of business and finance in development efforts must fundamentally 'change' through the adoption of 'eco-efficiency' measures and sustainable development efforts (Schmidheiny 1992; Schmidheiny and Zorraquín 1996). Recently, a number of studies highlighting the role of TNC environmental practices and sustainable development in developing countries have been conducted (e.g. Nelson 1994; Vetter 1995; Frankel 1998).

While a vast amount of attention in the literature on natural capital has been on general statements about the role of business in promoting sustainable development and general surveys of TNC environmental practices in developing countries, there is a paucity of research in many developing countries on what the specific natural capital impacts of TNCs are in terms of both renewable and non-renewable resources. More importantly, there is also a substantial lack of information on how these natural capital impacts are

affecting local stakeholders such as households. There is increasing recognition of the need for local-level analyses of TNC–household interactions. For example, the links between TNCs, environmental resources and households is one component of new political ecology research (e.g. Grossman 1987; Zimmerer 1996) because, as Bryant and Bailey (1997) argue, TNC business activities are increasingly influencing local natural resource management activities. Linking the household to the natural capital impacts of TNCs in developing countries will illustrate the effects of TNCs on renewable and non-renewable natural resources in different geographic localities, how these impacts vary according to different types of TNC operating in different sectors and how natural capital impacts are affecting household access to resources upon which many livelihoods are constructed. In addition, by focusing on specific TNC business activities, innovative ‘environmentally responsible’ practices can be highlighted in terms of their effects on households and their contribution to development efforts.

Social capital

Social capital has only recently emerged as a concept in development discussions and in the debate over TNC impacts on developing countries, but it has rapidly been taken up by scholars and development practitioners as an important asset in the discussion (e.g. World Bank 1998). However, the conceptual definition and ‘capital’ aspects of social capital have produced a considerable amount of confusion and scepticism concerning its validity as a discrete variable (e.g. Bebbington and Perrault 1999; Harris and De Renzio 1997; Stemp 1998; Woolcock 1998). While social capital may indeed be conceptually problematic, it is not necessarily appropriate to dismiss it; the debate over its conceptual ‘precision’ and the issues it highlights broadens the discussion over TNC impacts in developing countries. Furthermore, in conjunction with local-level household approaches, the notion of social capital can be further refined by more intensive and extensive investigation.

The notion of social capital owes much of its genesis to Granovetter (1985) and Bourdieu (1986), who first identified it in its present form, and to Coleman (1988) and Putnam (1993), who first explained social capital as, respectively, relational structures (both horizontal and vertical) that facilitate action, and as the elements of civil society that have fostered economic development and good governance in modern Italy. Since these early studies, recent articles (Woolcock 1998; Harris and De Renzio 1998) have elaborated substantially on the notion of social capital. While scholars are still disputing the conceptual definitions, the general ‘capital’ definition of social capital is that stocks of mutual trust or ‘connections’ between people exist that provide a flow of resources that enable both solutions to problems and the pursuit of economic and political activities.

Discussions of how TNCs affect social capital in developing countries have proceeded along a number of different lines. While early economic development debates over the impact of TNCs did not necessarily utilise ‘social capital’ language, the discussion over how to transform developing countries in the pursuit of economic growth and increased income clearly highlights many of the definitional aspects utilised in the preceding paragraph. Early modernisation theories, such as that of Hoselitz (1952), argued that economic development included not only a change in production techniques and technology, but also the wholesale transformation of social norms and values which, for modernisation scholars, would facilitate the positive aspects of economic growth. In contrast, dependency scholars (e.g. Muller [1973]; Frank [1974]) argued that the penetration of TNCs into developing countries was actually destroying, rather than transforming, these networks of social values and norms on which societies relied.

Another avenue of discussion in the social capital debate surrounds the introduction of TNC-FDI in terms of how it transforms market systems. For example, Evans (1996) argues that markets are 'delicate mechanisms' that are 'embedded' in the social fabric of countries. However, as Platteau (1994a, 1994b) argues, in many cases developing countries could 'vengefully react' to the rapid introduction of TNC-led FDI as it may be embedded in an 'uncongenial' network of social capital that could produce massive inequities and inefficiencies. While scholars such as Buckley and Casson (1991) suggest that introducing 'entrepreneurial' skills into a population can produce very positive impacts in developing countries, recent experiences with rapid introduction of new market values and the elimination of old social networks and norms in the former Soviet Union and in Eastern Europe clearly illustrate many of the problematic features of this argument.

Social capital concerns have also been pursued in terms of 'social responsibility' discussions. As early as Kapp's 1963 study on the social impacts of private enterprise, many scholars have argued that TNCs have profound social impacts on developing countries. One consequence of the emergence of 'sustainable development' discussions is the increasing attention being directed to 'social sustainability' in terms of both participatory development and the maintenance of traditional networks and institutions in developing countries (e.g. Jones 1997; Moser and Miller 1997). For example, Capra and Pauli (1995) argue that sustainable development has both an environmental and a social component and the TNCs must direct their attention towards the maintenance of both of these capital stocks.

The debates over the social impacts of TNCs in developing countries in terms of social capital are certainly in their infancy; the 'capital' aspects of social capital are only relatively recent formulations. Linking the local scale to this ongoing discussion would be particularly useful in terms of social capital because household-level studies can illustrate how social capital functions in particular contexts and in terms of particular TNC business activities. In doing so, illustrating which social capital networks are utilised as households access resources in their pursuits of livelihoods can contribute to the social capital discussion. In addition, household-level social capital studies can illustrate how 'socially responsible' activities on the part of TNCs are affecting social capital reserves in developing countries.

Complex dynamics and conclusions

A final consideration for capital framework analyses of TNC impacts on developing countries involves both the complex and diverse array of actors involved in this type of research and the relationships between capital resources. National-level studies seeking to evaluate the impacts of TNCs on developing countries have utilised the nation-state as the basic unit of analysis. However, by using the household as a unit of analysis and as a primary stakeholder in local TNC activities to evaluate the impacts of TNCs, the quantity of variables dramatically increases. While there are fewer than 200 nation-states, by the mid-1990s there were estimated to be over 37,530 TNCs actively controlling over 200,000 foreign affiliates worldwide (Jones 1996). In addition, this vast number of TNCs affect millions of households through their operations. While a considerable proportion of total business activities are in the hands of a hundred or so really large TNCs, the bewildering array of actors involved in the study of TNC impacts on developing countries presents a significant challenge to researchers utilising a capitals framework approach. The complexity of this situation suggests that the debate over how TNCs affect developing countries is far from over. In fact, it suggests that there is a real need for more research that differentiates between these actors in a meaningful and organised fashion, but that also provides a method for

comparative research. The employment of a capitals framework can provide this basic comparative framework, which can be substantially enriched by local-level household evaluations. Once this is accomplished, attempts to 'scale up' to regional and national levels of analysis can fruitfully demonstrate common processes and characteristics across sectors and countries.

Another important consideration is how capital resources vary internally. Research using the four-capitals approach must be cognisant of the fact that different compositions of capital resources are likely to be present in different contexts and that they are likely to vary over time. For example, in terms of natural capital, huge changes in biological ecology in the form of 'new ecology' approaches to ecosystems and natural processes suggest that disequilibria, instability and even chaotic fluctuations characterise natural resources (Worster 1990; Botkin 1990; Zimmerer and Young 1998). This emphasis on the volatility of environmental change tests the conventional wisdom that depicts nature as tending towards stability or near-constant balance. In analysing how TNCs affect capital resources, then, researchers will have to examine the complex interstices within capital resources in terms of spatial complexity, non-linearity and non-equilibrating processes, which are prone to threshold changes that in many cases may be dynamic and interrupted. Understanding variability within capital stocks is important because the relationships between capital stocks in local environments, given exogenous changes by TNC-led FDI, can create a variety of interactions that are contingent and based on uncertainty, yet very important to understand. In fact, studies utilising the household level of analysis, due to their limited scope, are probably most likely to illustrate the complexity of capital resource transformation.

The interaction between capital resources in terms of both TNC impacts and the production of household livelihoods is another important consideration. If researchers utilising a capital approach are to effectively evaluate how household access to resources changes in response to TNC-led FDI, an understanding of the relationships between capital stocks is critical, particularly as they change over time. Research on some of these interactions has been undertaken by a variety of scholars. In terms of produced capital, a vast quantity of literature originating in the early modernisation school and carrying on to the present has discussed the relative effects of economic development and how it produces substantive changes in other forms of capital (e.g. Lewis 1955; Hirschman 1958; Buckley and Casson 1991). Human capital studies also argue that other forms of capital such as natural resources (Strauss and Thomas 1995) and community produced capital such as health and educational facilities (e.g. Rosenweig and Schultz 1982; Birdsall 1985) equally affect human capital resources. Natural capital studies undertaken by ecological economists (e.g. Costanza and Daly 1992; Rennings and Wiggering 1997) argue that produced and human capital interactions significantly affect both the depletion and the maintenance of natural capital resources. Social capital studies have also recently explored the relationships between capital resources. Bebbington and Perrault (1999) evaluate how social capital reserves affect household access to other capital resources in the highlands of Ecuador. In addition, Katz (1996) evaluates the role of social capital in minimising unsustainable natural capital depletion in Guatemala. Finally, researchers utilising the four-capitals framework will not only need to usefully quantify each of the capital resources by using a set of illustrative indicators—some of which have been outlined in this paper—but will also have to evaluate how the interactions between capital resources change as TNC-led FDI is introduced into developing countries.

In conclusion, while the debate over the impacts of TNCs in developing countries may have diminished recently, it is probably more appropriate to suggest that the debate has moved to new intellectual and conceptual terrain. These new discussions need to be inte-

grated into analyses of TNC activities that account for a wider diversity of impacts and that also consider new types of business activity that are ostensibly undertaken to increase the socially and environmentally responsible behaviour of corporations. Corporate citizens of the 21st century will increasingly have to account for all of their resource impacts and it is expected that frameworks such as the one presented in this paper will continue to be adopted around the planet.

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