

Epilogue

READING MAPS IN THE DARK: ROUTE PLANNING FOR DEVELOPMENT GEOGRAPHY IN A POST-IST WORLD.

Introduction

The symposium on "Land Management and Sustainable Development in Rural and Urban Environments of the Third World" at the 1996 International Geographical Congress in The Hague focused on geographical research in land society relationships. The range of papers provided a variety of case studies of local land management in terms of livelihood strategies and the wider politico-socio-economic and ecological context in which they operate. They also highlighted the contradictions and tensions between different systems of knowledge about the environment, and the ways in which one may be privileged over others. These are implicit in most of the papers - in some, modernising knowledge is promoted for the solution of the problems of a modernising economy (for example, managing urban pollution in Malaysia), while in others institutional, political and technical knowledge is undergoing profound change, whereby the local continues to resist, adapt to, or be replaced by the forces of globalisation. Most papers in this collection make implicit distinctions between the familiar, and some would say, stereo-typical characterisations of different knowledges (scientific, western and modern on the one hand and indigenous and traditional on the other), although it is a much debated point whether it is useful to make a distinction between them at all (Agrawal 1996).

Blaikie (1995; 1996) had already stressed on various occasions in the period preceding the conference that environments are perceived and interpreted from many different and contested points of view, which reflect the particular experience, culture and values of the viewer. In his state-of-the-art lecture during the symposium, the discussion of the opportunities and constraints of the "neo-populist" development paradigm and the whole post-modern research context in which it is placed, suggested new avenues for research in the geography of development - and inevitable (INEVITABLY?) new opportunities for getting seriously lost. The neo-populist approach rejects modernisation as an inevitable and convergent direction of social change; respects local diversity and local agendas; considers truth as negotiable and variable; is aware in principle at least, of power relations appearing in priorities, research agendas and goal setting; and encourages local and authentic action so that people can speak and act for themselves. However, at the same time, there remains a central contradiction which is that development is still seen as involving intervention by outside organisations, and therefore new (and usually modern) knowledge. This tension in turn poses some uncomfortable questions about the role of the academic in development, who are we talking to and why. These tensions will be (HAVE BEEN) examined in the papers which constitute this volume, and how neo-populism in development studies and in practice could point to new and promising avenues for geography of development? (IS THIS SENTENCE OK WITH THE QUESTION MARK AT THE END?)

Mapping neo-populist development - new legends and new terra incognita

Neo-populist developmentalism has as many attractions as it has false trails. If modernist criteria are used to examine what is in many ways a post-modern style of development, a SWOT analysis would identify a number of strengths, weaknesses, opportunities and threats with respect to both the geography of development (theory and epistemology) as well as for development as a practice.

An important strength is that neo-populist developmentalism looks always prepared to question narratives including its own. Although it seems sometimes that the questioning of narratives is as compulsive as the modern ones it wishes to destabilise and overturn, it surely will not run out of ideas, and resort to the tired old platitudes of conventional development theory. Another strength is that it aims to learn from its target group or beneficiaries, which potentially implies an engagement to apply what has been learned, as well as aiming to ensure that development is locally appropriate. Yet another strength is its awareness that power relations at the development interface determine agendas and outcomes. However, this is more in the telling than the doing. The reproduction of knowledge-power through cultural and professional repertoires of western (and western-trained) agents however are as enduring as ever, which should be of little surprise to anyone. The enormous outpouring of academic writing on participation, local /indigenous knowledge and empowerment, and even the adoption of those principles by some NGOs and government programmes have not, it seems, made a great deal of difference on the ground. Compare this with the changes in policy brought about by the World Bank at the beginning of the 1980s, which in a matter of two or three years managed a clean sweep of global economic policy in the form of structural adjustment programmes, with a tiny proportion of verbal volume, critical papers, conferences and so on of the neo-populist paradigm. Our SWOT analysis would be able to identify a weakness here, especially if the ultimate aim of any development style or paradigm is to improve practice.

Another linked weakness is clearly revealed by the observation that the development industry of professionals and academics is to a large extent a self-referencing group (see Blaikie, chapter 1 in this volume). While the large proportion of geographical, indeed all academic, research is self-referencing, development research surely must keep in sight its ultimate goal of supporting the process of the expansion of human capability (Sen 1988), however that may be defined. Thus, what is the impact of this circulation of neo-populist development ideas?

In this way, these weaknesses are linked with a straightforward threat, namely the observation of the ever growing gap between the rhetoric of developmentalism and its results, in terms of serving poor peoples' struggles to achieve their desired states of being. This has been perceived by even the most entrenched and optimistic of development professionals, as well as to the publics of the North and South, as at best a mixed outcome and at worst, a poorly implemented sham. The threat is the

effectiveness of local, diverse and open-ended development outcomes is difficult to define and be persuasively demonstrated, which leads to confusion, weariness and cynicism.

If more post-modern criteria are applied it would seem that neo-populist developmentalism is a modern project in post-modern clothing. The rhetoric of participation and empowerment, bottom-up planning cannot transcend knowledge-power relations either in the offices of multilateral and government agencies nor in the local forest management committees, village councils and womens' projects at the local level. However, such a distinction, valuable though it may be in setting the overall context for this style of development, should not be overdrawn. The existence of a participatory rhetoric provides spaces for new questions and challenges, can allow new negotiation and accommodation, and shifts in what is legitimate agenda. Route maps there may not be, and the map legends may no longer mean what they used to. Contested meanings, that cliché of post-modern development writing, can change the cartographic categories. Maps of erosion hazard, moisture availability, land classification and urban zoning are powerful knowledge, but, given the possibilities of redefining them in terms of local priorities, they can be renegotiated. Opportunistic coalitions at the local level is a form of politics, which must form the focus of future development, and therefore of much of future geographical research. However, there must remain large areas of development which cannot be mapped in a reassuring way for future travellers, and which remain terra incognita.

Towards more comparativeness

There is one area perhaps, where the cartography of development should be more inclusive. Hitherto, development studies have been hypnotized by problem solving in the South. There are many and well rehearsed reasons for this, including the driving meta-narrative of modernisation, convergence of underdeveloped countries upon a western stereotype, and a transfer of technology, political structures and rational criteria for "decision making". These are too well known to be elaborated further here. There remains little interest in development in the North, although many of the problems may be addressed in the same ways and in terms of the same debates as those employed about the South. There are two ways in which this could be changed. First, if experience from development studies would be compared with, or even (more or less successfully) applied to, similar situations in the North, the result will be an increased relevance, a growth of public support as a consequence, and last but not least (THERE IS FIRST BUT THERE IS NO SECOND, COULD THIS BE 'SECOND'?), the self-referencing group of development professionals and academics which exclusively view the South as the object of development, would be forced to rethink their approaches.

Of course one has to be careful in propagating experiences from the South as solutions to problems of the North. Also the road of development practice in the South is strewn with wreckages of agricultural techniques, credit systems and legal structures transported from the North and there is no guarantee it will work better the other way around. However, this is not a case to introduce folk or indigenous knowledge from the South, for example from the Fulani pastoralists in drylands of

West Africa, to control BSA or mad-cow disease in Europe, but instead to test concepts and conditions from development studies on their broader applicability in the North. The need for this kind of comparativeness, is not met by comparing cases in developing countries but comparing CASES FROM South AND North.

Two examples illustrate this. The first stems from a university cooperation project between the University of Amsterdam and the National University in Benin, which is taking place under the aegis of a Sustainable Development Agreement between the Netherlands and Benin. This agreement does not only aim to promote sustainable development in Benin, but to question sustainability in the Netherlands too. A number of Dutch environmentalists, primarily working on environmental problems in the North and without any experience in Africa, became involved in this cooperation programme. Contrary to the conventional one-way technology transfer approach of most development “assistance”, which would typically confine its focus upon how to protect Beninese wetlands or how to prevent land degradation in cotton growing areas, this group of Dutch scientists cooperated with Benin primarily to discover concepts, technologies and arrangements that could be useful to test in the Netherlands. Based upon the work of the Beninese nutritionist Hounhouigan on the characteristics of traditional leaf packaging in his country, they became aware of the huge variety of practical uses of leaves in Benin, among which leaf packaging (seemed one of the most promising) STANDS PROMINENT. Not only are these leaves an example of packaging materials made of renewable resources, but they are bio-degradable too. Furthermore, they contribute to the incomes for poorer rural families. However, in Benin itself, there is also cause for concern because leaf packaging is losing ground to plastic-based packaging, thereby foregoing these benefits. Urbanisation and increased population density have increased the scarcity of leaves and the balance of comparative costs are becoming unfavourable to leaves.. This substitution does not only result in an increased environmental threat because of pollution by plastics, but also in a health threat because (women0 FEMALE STREET VENDORS are used to cook some dishes in leaves which are replaced now by plastics. The cooking of food in plastic film instead of traditional washed leaves causes toxins in the plastic to migrate to the food (Boko et al. 1997).

The conventional solution to this analysis would than be the design of a strategy to counterbalance the advance of plastics and subsequently the start of a project to stimulate local, small-scale entrepreneurs to reintroduce and improve leaf packaging. However the Dutch environmentalists reacted instead in a more innovative way, and, together with another Beninese researcher, they organized a survey on renewable packaging materials in the Netherlands. The survey helped to gain a better picture on opportunities and barriers involved in introducing leaf packaging in the Netherlands. It concluded that a feasibility study would be necessary, but it also helped to create a network for those interested in future research in this area (Boko et al. 1997). Obviously, this example does not call for the importation of Beninese packaging leaves to the Netherlands, but does show that the concept of bio-degradable packaging made out of renewable resources could make an useful contribution to the solution of an environmental problem in the North as well. The example of leaf packaging in Benin is worth learning from and testing. Could Dutch leaves be used in the same way? Has there been past experience in this respect overshadowed by modern but unsustainable substitutes?

An example nearer to the theme of the symposium is the concern of European urban planners and policy makers for management of public spaces, with the possibility of learning from models of environmental management at the village level in West Africa. The debates in different European countries about how public spaces could be properly managed has been going on for at least thirty years. Faced with polluted and unaesthetic shopping streets, increased insecurity in urban neighbourhoods and green leisure areas around cities swallowed by new housing development, highways and TGV's, planners have reverted to concepts like common pool resources, but still treat their viability with a scepticism which draws from to Hardin's Tragedy of the Commons. Still, they are looking for new ways to balance private and public interest, to share spaces and time-spaces using a variety of different legal and planning instruments, but they have overlooked at least 15 (25?) years of discussion in development studies on common property regimes in the South.

Instead of re-inventing the wheel and searching for solutions such as shopping street managers and crime prevention teams of neighbours, these planners and policy makers could learn from common property regimes in the South, their conditions for original success, the reasons for their disintegration and the rationality behind their survival or even revival in modern times in so-called participatory land management projects. Homogeneity of the user group, similarity of the resources to be managed commonly and competency of taking sanctions, have always been prominent among the key conditions for the success and survival of common property regimes. The reasonably successful *gestion de terroir villages* in West Africa have nowadays the power to do what neighbourhoods or Amsterdam shopping street managers do not, which is to penalize offenders and impose fines without having to wait for a higher authority to intervene.

There are other areas in which comparison may be useful too. Poverty studies in the North could profit from studies on livelihood strategies and coping mechanism of rural and urban poor in the South. The first surveys into the illegal Turkish workshops of ready-made clothes in Amsterdam some 15 years ago, were carried out (SKIPP made) by development geographers, making use of insights from the informal sector discussion in development studies.

Finally, the participatory research techniques themselves, developed during the last decade or so, are useful to share. Although the participatory approach often encounters major problems because the results of the participation process do not always comply to the externally-created intervention agendas, the rapid appraisal techniques constitute an important contribution to the methodology of data collection and its participatory action and learning version, might be extremely useful to establish neighbourhood management projects bottom-up instead of top-down.

In search of new directions

The contributions to this volume were not written specifically to address a set of themes. Nonetheless, by overviewing and evaluating their approaches and conclusions with reference to some unresolved and important issues, we hope to go a

step further by illustrating the research problems and solutions which each of the authors were engaged in. After summarizing the main points of the paper, we will evaluate how the paper contributes to a further understanding of local land management in terms of the challenges and opportunities for future geographical research, which have been discussed in the first paper and this epilogue.

De Haan's contribution (chapter 2 in this volume) reassesses the results of an interdisciplinary research project of various European and Beninese research institutes on land management and pastoralism in northern Benin in the light of the questions raised in the state-of-the-art lecture. The paper deals with the capability of land managers to adapt to environmental change , and specifically degradation. In his view environmental management should be understood as the result of an interaction of processes at various scale levels, which means that the discussion about distinctiveness knowledge systems as outlined by Blaikie'S STATE-OF-THE-ART LECTURE, is closely related to the understanding of local land managers' livelihood strategies and the wider political ecological context in which they operate.

In De Haan's research area, tensions between peasants and Fulani pastoralists emerged in the 1980s. On the one hand, this tension was caused by a period of relative drought particularly affecting herdsmen. Over time, the number of other pastoralists from external origin who have migrated from the Sahel to this region has increased considerably. They now graze their cattle in places from where the local Fulani have already moved on by that time of year. Also, expanded commercial crop production increased pressure on resources too. De Haan's ecological survey revealed three important processes of land degradation, i.e. soil erosion, topsoil deterioration and depletion of nutrients and degradation of vegetation such as a reduction of tree crowns cover and a decrease of soil cover. In general, the herdsmen showed little interest in the conservation of the savannah or fallow land where they tend their flocks, and the paper then pursued explanations. Opportunistic grazing, a concept stemming from the neo-populist's new rangeland ecology debate, might have been an explanation, whereas the research team was much more working in the tradition of the Clementsian plant ecology school of thought, which could perhaps be labelled as neo-liberal. However, De Haan leaves it an open question to what extent local knowledge is capable of developing more sustainable types of land use on its own. Instead, he stresses a number of political ecological determinants which tend to impede a move towards a more conservationist pastoralism, and which lie beyond the scope of the local knowledge system of the pastoralists concerned. The lack of clear grazing rights, the sharing of most resources by pastoralists and peasants under ambiguous and contested property rights, the hindering of herd mobility by increased areas under cultivation, and unstable livestock and meat markets have all frustrated any attempts to develop from semi-nomadic pastoralism to other more intensive systems of animal husbandry.

In conclusion, De Haan recommends a particular type of management intervention, but one which clearly demonstrates the neo-populist dilemma described by Blaikie. On the one hand, De Haan stresses the need for a participatory methodology taking into account indigenous knowledge systems, but on the other, the recommended framework for intervention is undoubtedly exogenous. It is a *gestion de terroir* strategy that uses the concept of a village territory, managed by a responsible village

group with the objective of using the natural resources sustainably. In West Africa *gestion de terroir* is perhaps the most prominent consequence of the application of the neo-populist paradigm in environmental management. Among others, it implies the definition of a territory (*terroir*), the establishment of sustainable production systems and a development contract with the local population. It assumes that at the local level a kind of permanent consensus about the use of resources could be established. However, De Haan argues this neo-populist stereotype does not portray the real nature of social relations which are often characterised by conflicting interests with respect to natural resources, such as between the peasants and pastoralists of northern Benin. Here again, the drive to consensus, depoliticisation and the avoidance of conflict tend to be key features in participatory projects (De Sardin 1990, Brown 1995). In fact, it is already clear in northern Benin, that to some agencies the participatory approach has become just another way of selling top-down interventions to local people.

With respect to the distinctiveness of scientific and local knowledge, one of the main issues of discussion at the symposium, De Haan (chapter 2) arrives at the conclusion that it would be illusory to attempt to reconcile them. A familiar and fundamental disagreement between western scientific and folk interpretations of environmental change makes its appearance here, in which the former invariably diagnose degradation and the latter either deny it or its relevance. The examination of this difference of view (the scope of which can be extended to a whole range of differences in interpretation about environmental processes and change through time) is perhaps one of the most interesting and challenging investigations which geography is in an excellent position to examine. It involves not only the tensions and contradictions of neo-populism, participation and the reification of local knowledge, but also the wider epistemological and methodological issues linked to the post-modern challenge. These include the close relationships between knowledge, power and theory. In this case, they are played out between soil scientists, planners of the *gestion* framework and a heterogeneous range of rich and poor, men and women, pastoralists and peasants. "Whose reality counts?" (to use the title of Chambers' 1997 book) is an interesting question to ask from the more post-modern end of the spectrum. One could also ask "Whose reality should count?" - a much more normative and less politically correct question, but one, in our view, which should still be asked. Is De Haan and the other scientists wrong or irrelevant? There are plenty of cases where science has come round to agreeing with local resource users and showed the earlier scientific work to be just that - plain wrong (Abel and Blaikie 1989, Behnke et al. 1993, Fairhead and Leach 1996). In other cases, one might draw the tentative conclusion that all people make diagnostic mistakes sometimes, particularly about slow, episodic and often subtle changes in the environment over a long period, and the local resource users are indeed mistaken like anyone else. De Haan suggests some sort of negotiation between the stakeholders. Is this feasible, either politically or epistemologically, to achieve closure regarding this issue of degradation? Some efforts to achieve closure through logical means (seeking agreement on definitions and relative values and degrees of importance of different outcomes) may be possible as an intellectual exercise (Dahlberg and Blaikie 1998), but in practice the process is the very stuff of politics. Certainly, neo-populist rhetoric and methodologies call for conflict resolution in an accountable and democratic way, but the practice is usually messy and compromised.

Lein's paper (chapter 3) focuses on attempts to introduce modern principles of water management in an area of the Kilimanjaro region in Tanzania, where well established indigenous water management systems exist. The traditional furrow irrigation system dates back to pre-colonial times and is based upon an extensive network of channels running across the mountain slopes. The system became less important during the 1960s and 1970s due to lack of maintenance as a result of the construction of public pipelines for domestic water supply, and the waning of the necessary political authority to manage it. After the construction of the controversial Paganí hydropower plant, a Basin Water Office was established to prevent potential water shortage. This was considered as an essential element to control a resource vital to secure a reasonable return from a huge investment. The Office claimed to the right of overall water management in the area, but did not give any legal status to the traditional furrows. To reduce water wastage in traditional agriculture concrete sluice gates were constructed. Not surprisingly, they were received by the farmers with mixed feelings.

According to Lein, we are witnessing two different water management systems. The modern water management system is superimposed on the region and its denial of local rights to the pre-existing one follows a long history of attempts of the colonial and post-colonial governments to secure state control over vital resources. Although the traditional water management system is deeply rooted in local culture and society and the modern interventions are merely yet another attempt by the state to control the use of natural resources. Lein refuses to reject the project nor to embrace the traditional system for its sustainability, as neo-populism would do. Neither does he take a neo-liberal stand by advocating the project interventions. He identifies a number of fundamental problems in the traditional systems as it works today, in the sense that it is too localised and fragmented, and fails on both efficiency and equity grounds. Given the rapidly changing socio-economic context caused by population growth, increased demand for irrigated vegetables and burgeoning agribusiness, the traditional water management regime will face major problems in the near future, because it was set up to solve a very different set of problems in the past. Whether a neo-liberal approach which would facilitate the emergence of a water market, or a neo-populist one is being suggested (SKIPP here) is not dealt with here, and might be an avenue for further research. Referring to the neo-populist approach rejecting, as was pointed out by Blaikie in chapter 1, modernisation as an inevitable and convergent direction of social change, Lein maintains that it is futile to argue against change induced by powerful outside forces that will happen anyway. He believes researchers, genuinely interested in taking care of local peoples' interests, must be (assist) WILLING in whatever ways that are open to assist local people to articulate their interests and participate in a process of change. Here, it seems that the researcher might become a neo-populist intermediary, almost a spokesperson, for the local community. However, Lein dissociates himself from this role by taking the pragmatic, and in our view, grounded position that local development knowledge is not capable of solving all their problems. Nevertheless, according to Lein, the researcher's role is limited and should not include the prescription of solutions. Instead, the researcher's role is limited to the exploration of possible avenues for change, but in the end may be confined to the role of the interested observer, who offers a range of politically disinterested and rational choices for the local political economy to pick up and do what they will with. This is a very different sort of view

from De Haan's and the hands-on context of much of the NGO literature on participatory rural projects discussed in Blaikie's paper. It avoids many of the "subject-object" dilemmas of development work, and refuses to make the more intrusive, blueprint, and eurocentric claims of many other researchers. On the other hand, it lays itself open to charges of naivete, in that the researcher places too much faith in the power of a-political rationality, and the ability to affect outcomes in a progressive way by merely doing good research and leaving the report on the desk of policy makers. The assumption that "truth talks to power" and the outcome is the "best" policy is not warranted.

De Haas (chapter 4) examines the impact of recent socio-economic transformations on traditional oasis agriculture in South Morocco. He considers the oasis of Agadir-Tissint, originally a highly labour and land intensive production system under arid conditions, the sustainability of which is now deteriorating because of its integration in a wider political economic system. This has been provoked by the collapse of the caravan trade, the decline of nomadism and the emigration of labour to urban areas in Morocco and abroad. Migrant remittances now constitute the main source of income in the oasis and agricultural labour is not comparatively attractive to local people as a livelihood option. Land use has become more extensive, some fields are abandoned and communal activities in the field of soil and water conservation backed by common law are in decline. Revenues from agriculture are only supplementary to many people's livelihoods, a change that is widespread throughout Africa as a whole (Ellis 1998). GIVE FULL REFERENCE FOR BIBLIOGRAPHY

Nevertheless in some oases, a revival of irrigated agriculture has been initiated by investments from migration remittances. However, these develop just beyond the perimeter of traditional oases so that the complex traditional land tenure and water distribution system can be evaded, (and) WHICH in an important sense are obstacles to a new commercial agriculture (in the hands of a few) BY entrepreneurs. De Haas did not directly broach the controversy between the neo-liberal and the neo-populist paradigm. He concludes that, while oasis farmers possess valuable knowledge of the local environment and political and administrative skills, it is clear that broad socio-economic changes, quite outside the control of local action are, as in the case of Benin discussed above, undermining these older systems. The question that might be asked is "so what? How does all this matter?" Answers might include environmental degradation, changes in income distribution, loss of livelihoods for those who do not have access to diversified non-agricultural income, altered gender relations (briefly mentioned as remaining "rigid"), and a breakdown of the old patriarchal feudal order (termed in the paper as "collective demoralisation"). Clearly an overall view has to be taken regarding the relative merits of these environmental and social changes. The author seems to take a neo-liberal rather than a neo-populist position in his paper, which in this volume is a welcome challenge to an uncritical neo-populism. Traditional agrarian structures are considered as a bottleneck for private investments, and newly created and privately owned irrigated crop production enterprises are not so much rooted in the oasis itself but outside the area governed by common law. Even so, the agrarian revival in other oases is externally driven by migration remittances, it is by no means a top-down type of development since it is based in decision making by local people, and conforms to the view that the market is liberalising, and increases

individual choice. How far this neo-liberal image is rooted in the reality of oases in southern Morocco poses another set of questions which lie outside this paper.

The research objective of Van Der Glas (chapter 5) is TO investigate the link between land use, soil degradation and farmer's response to soil degradation. Society-land relations in two colonization areas are compared within their politico-socio-economic and ecological context, contrasting a Brazilian study area with a Paraguayan study area, where agricultural colonization started 20 to 30 years later. Two aspects of land use were studied (cropping patterns and tillage systems). Despite the length of the colonization process, cropping patterns hardly differed between the two areas. Market factors are the main explanations for this resemblance. The farmers practised a wide range of techniques, ranging from traditional to modern. The tillage system had changed during the colonization process, from conventional ploughing and sowing to a no-tillage system.

It was reported that, since local farmers are too poor to compensate for the loss of nutrients by means of fertilizers, they are faced with soil fertility problems, and crop yield declines. Soil erosion, according to outside expertise is strongly related to conventional tillage practice, and soil compaction due to mechanization is a major factor. Although many farmers do respond to soil degradation, on the whole the response is meagre. This is so because learning processes and the adoption of new practices takes time. Also the stimulus to change brought about by soil erosion takes a very considerable time, and in the Paraguayan case, the area has only recently been colonised, so problems have yet to surface fully. Also, access to resources such as labour, new knowledge, and cash is severely restricted.

In the Brazilian study area, resource constraints in terms of knowledge, capital and machines are less and external factors such as support from soil conservation programmes and favourable market conditions, are more favourable. Therefore soil conservation occurs more frequently in this area. With the latter Van Der Glas clearly illustrates that local land management can only be understood by analyzing livelihood strategies within the wider politico-socio-economic and ecological context.

Some familiar themes arise out of this paper. First, is the different values put upon environmental degradation of different types by different farmers and by outside observers. Here, the emphasis is put upon the learning curve of farmers about degradation rather than the possibility of the latter group being wrong. However, the centrality of soil erosion and the linkages with farming practice is not shared by farmers, who view other constraints (particularly labour) as more important determinants of technology adaptations. Who knows best for the local situation?. The author follows an actor-oriented approach and the farmer is viewed as an active decision-maker. However, his local or indigenous knowledge systems are far from glorified and much emphasis is put on his limited freedom of choice, depending on availability and access to resources.

Ikeya (chapter 6) examines a series of conflicts on territorial rights in Kenya between Somali and Orma pastoralists, after a droughts had forced the Somali to move their livestock into Orma territory. The Somali nomads in his research area either migrated around fixed settlements, where schools and clinics are available, or to a wider area

around the town of Garissa. In the latter case they camped along the Tana river, an important water source for their livestock, and near other towns and villages in order to sell milk. During long periods of drought, Somali are forced to look for new pastures for their camels. However, at the same time they want to stay close to the settlements in order to sell milk, which leaves them little choice than to trespass Orma territory. In addition, Somali have started to raise cattle too, for which they (SKIPP are) lack suitable pastures and consequently tend to exploit supplementary Orma territory. Some Somali even stay with their cattle camps in Orma territory when grass is again available in their own grazing areas. Planned cattle stealing and armed conflicts between both nomadic peoples are the results of this encroachment.

Meanwhile, the government and a Japanese NGO are trying to stimulate Somali sedentarization, at the expense of severe environmental degradation around the settlement. Nevertheless the author suggested a very different type of solution arguing that by ensuring Somali mobility and making use of their indigenous pastoral knowledge, sustainable results might be better achieved. But that was not to be and yet another problematic intervention was planned. A Japanese loan to the Kenyan government has brought closer to reality a construction project for a hydroelectric power generating dam upstream in the Tana river. Its implementation would eventually cause the river floodings to disappear, which would affect in its turn the gallery woods and next the wood needs of the Somali. Ikeya argues that especially the latter issue makes clear that land management should be analyzed on different levels of politico-socio-economic and ecological scale, i.e. grazing arrangements between different Somali villages on a local scale, those between Somali and Orma on a regional scale and the management of the Tana river valley on a national scale.

The author clearly points out throughout the paper that the Somali's indigenous knowledge of dry environments has hardly been considered by the government and the NGO. One suspects, though the author gives little hint, that there is a highly charged politics which has infused all these decisions. Incursions of Somalis, who are considered foreigners on Kenyan soil, are hardly likely to receive sympathetic treatment from Kenyan decision makers. Pastoralists, of whatever ethnicity are also thorns in the side of states, and have been so for at least a millennium, and are viewed as uncontrollable, warlike and untaxable. Consider too, the large capital intensive hydro plant with its modernising rhetoric, large corporate profits for the contracting engineers and plaudits for the politicians. The Orma and the Somalis are left in the dust, with or without their indigenous knowledge, which they will have even less chance of using. Just as in the same way as an understanding of local political ecology and the livelihoods of resource users is important in any engagement with society-environment relationships, a detailed political economic analysis of government institutions, administrations and decision-making is also essential. It may be less attractive to geographers as a research area, but also it an essential counterweight to romanticised neo-populism, and to a naive belief in the benefit of good research to policy makers.

The paper of Hassan, Zakaria and Rahman (chapter 8) on the cost of urban pollution in Malaysia unfortunately is the only paper on urban land management in this volume. It discusses one of the major problems faced by most municipalities in Malaysia. High annual growth rates have not only brought prosperity in that country, but it has

also started to impose costs of industrial pollution and degradation of the urban environment. Like in so many other rapidly developing economies of the South, this resulted in the generation of massive amounts of solid waste. The amount generated continues to expand in response to rapid increase in population and accelerated urbanization and industrialization. Hassan, Zakaria and Rahman discuss the magnitude of solid waste problems in Malaysia, particularly the acute shortage of land for disposal. They present some preliminary analyses of the impacts in monetary terms. Waste management in Malaysia is almost entirely the responsibility of local governments, resulting in a sub-optimal use of land and labour because of lack of coordination. Limited financial resources, lack of planning and unclear federal policies further weaken waste management. The authors then suggest cost-effective strategies for pollution abatement including a multi-criteria evaluation of various waste disposal alternatives to find the most appropriate system for Malaysia and other fast developing countries. As a result, they plead for a coherent national waste policy. Privatization together with regulation, better enforcement of environmental legislation and public environmental education, so a mutual supportive private and public sector are the key components of this.

It is beyond doubt that the analysis of Hassan, Zakaria and Rahman is a good example of neo-liberal thinking, and a modern market friendly solution for a modern problem. The emphasis is on better planning, appropriate incentives and adjustment to market forces by privatization. Although generally urban studies seldom highlight indigenous knowledge, which seems to be more the domain of rural research, attention for traditional urban management systems is not unusual. However, either their importance in Malaysia has rapidly decreased because of accelerated urban and industrial growth, or they are not considered to be relevant from the authors' point of view. Characteristic of their approach is their discussion of awareness and commitment of the public to the care of their environment. A more neo-populist approach would emphasise employment implications for different waste disposal technologies, income effects on the urban poorest, community involvement at finding locally appropriate solutions for their own neighbourhood, and a concern for recycling, and other long-term implications for the environment. Hassan, Zakaria and Rahman simply call for privatisation, better public environmental education and enforcement of regulations. While these are important issues, and the approach is unashamedly neo-liberal, there is perhaps a case for not polarising the populist and the neo-liberal approaches.

Undoubtedly, Young (chapter 7) takes a much more neo-populist position in her paper on the indigenous approaches on sustainability and development in Australia's rangelands. She pleads for a transformation in rangeland use, permitting next to commercial pastoralism a wider diversity in land use associated with determined efforts to encourage the regeneration of overused, often marginal, areas. She shows that, though marginalized now, Aboriginal people have a clear interest in sustainable management of the rangelands. Their land management is much more holistic because it integrates economic, ecological and social elements. She demonstrates in a number of examples how this contributed to enhancing rangeland sustainability. Aboriginal reoccupation of the rangelands has resulted in a marked general increase of knowledge of its resources. Their traditional ecological knowledge has contributed to the preservation of some rare animal species, counterbalancing the general loss of

biodiversity. In addition, rangeland sustainability has gained by the involvement of aboriginals and their traditional ecological and cultural knowledge in the management of national parks.

Aboriginals on their turn have acquired modern pastoral knowledge, which has accrued social and economic benefits to them. Moreover, because their land use is much more diverse than that of the commercial ranches Young believes that economic vulnerability can decrease and ecological sustainability may increase. Young firmly argues that indigenous knowledge can make a useful contribution to sustainable development in the best tradition of the neo-populist paradigm. Referring to the wider politico-socio-economic and ecological context in which this process operates, it becomes clear that these opportunities tend to occur in marginal areas where commercial pastoralism has left over a niche for Aboriginals. However, they are supported by government policies aiming to restore partially aboriginal's rights or access to their ancestral land. Finally, the author does point at a new avenue for geographical research. According to her, non-Aboriginals ranchers are already profiting from the introduction of non-pastoral options like fishing, hunting and tourist expeditions based on indigenous knowledge. Young proposes the development of multiple land use for all rangeland users, not just Aboriginal people. She pleads for better information flows, involving government, rangeland scientists, and Aboriginal and non-Aboriginal rangeland users and management. Although ordinary rangeland users, whether they are Aboriginal or non-Aboriginal, still have a limited voice in the area, some of the messages about alternative approaches to rangeland use have already been received. The paper demonstrates the potential value of a new avenue in geographical research based on comparison between "developed" and "undeveloped". In her case the first elements of indigenous knowledge and concepts of indigenous land management appear usefully assimilated into modern, market integrated pastoral production.

New maps, new destinations for geographical research

One of the most important implicit items on the research agenda which has appeared in this volume is the role of the researcher. This concern has perhaps been hitherto more important to anthropologists than to geographers, but the recent post-modern challenges to development have forced a re-evaluation of the object and subject in development research in geography too. Neo-populism in practice explicitly negates the subject-object division, although, as contributions to this volume have indicated, strong structural factors may perpetuate them. Another point of view taken by Lein is that there are advantages for both researcher and researched of a disinterested and "semi-detached" role for the researcher. It is the classic role of the researcher which puts carefully crafted alternatives before their political masters. Undoubtedly, there is value in this approach but it flies in the face of contemporary geography which highlights local politics, subjectivity and power-knowledge. In other words, the local political economy will make what it will of even the most rational and well-informed research report. The structural position in which university researchers in development studies find themselves is undoubtedly a difficult one. Researchers have agendas of their own to satisfy PhD examiners, research assessment exercises and promotion committees - which are a far cry from really making a difference at the local level to poor, harassed and marginalised groups.

The elaboration and critique of neo-populist developmentalism is certainly in the mainstream of the more post-modern direction of much of contemporary geography. It also broaches the subject-object problematic and asks awkward questions about knowledge and power which encompasses the researcher (and the funders) as well as the object of research. An issue which has arisen in a number of the papers in this volume is one of the central tensions in the neo-populist paradigm. As well as asking the question "whose reality counts?", the questions "who is right?" and "is this just?" may also be added. Peering at old maps of moral and technological correctness is increasingly becoming a waste of time, but the vast expanse of terra incognita without clear values and social objectives, and without an epistemology which can compare social outcomes, no route planning - and indeed no future development geography - is possible. One area of research is to examine case studies of competing knowledge claims (specifically about the environment) and to examine whether there can be a rapprochement between rationalist, scientific and universalistic interpretations of nature and the environment on the one hand and subjective and social constructivist ones, on the other.

Finally, development geographers are in as good a disciplinary position as many other areas of academia to study knowledge-power relations in government, administrations and multi-lateral organisations. Comparative North-South studies would be particularly useful here. Also, this area grounds (IS THIS WORD CORRECT?) the romantic rural origins of neo-populism in much less inviting (but perhaps more interesting and relevant!) terrains of smoke-filled offices, back-room deals and contested representations of environment, nature and conservation. Also, this type of analysis can be extended to the development industry itself, which itself knows no national boundaries, and certainly none between North and South. Here, the vague generalisations about the globalisation of development discourse and policy can be anchored in carefully researched case studies. Here to comparative studies can be made of the rhetoric, politics and outcomes of the different approaches to development. One thing emerges from the variety of papers in this volume and it is that there is little distinction in practice between neo-populism, classic statist approaches and neo-liberalism. They appropriate the most attractive aspects of their rivals, employ various verbal strategies and it is possible that it does not make a great deal of difference except at the local level. Radical pessimism of a structuralist persuasion still throws its long shadow over development in spite of post-modern distractions.

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