



Grassroots Action to Address Emerging Sustainability Threats to Cities in the South

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ABSTRACT

This paper is concerned to explore the level of activity and potential of grassroots organisations working to ameliorate conditions in informal housing settlements to take on board disaster reduction. The paper notes that grassroots self-organisation of poor communities has grown greatly in strength in recent years but that these focus exclusively on defence of the rights of communities to remain where they are and thence to incrementally improve living conditions. There is almost nowhere thought concerning possible disasters that could befall the communities and how these might be avoided. The paper looks first at immediate hazards such as floods, landslides and earthquakes. It illustrates the weakness of action to avoid disaster even after there is experience of the problems by focusing on the reconstruction of peri-urban villages around Jogjakarta, Indonesia, following the recent major earthquake disaster. The paper then goes on to look at possible consequences of emerging sustainability problems, especially global warming and the decline in energy resources on informal settlements. In this respect informal settlements stand to suffer major problems in the relatively near future to the point where they are no longer viable as places for communities to live. The recommendation is that educated assistance to grassroots organisations should be informing itself of the emerging problems and passing this on to grassroots organisations in ways that will assist them to evaluate the issues and take proactive steps to avoid the worst.

INTRODUCTION

This is not in itself a research paper, although it does make reference to the results of some action research or pilot projects. The point here is to provide a 'think piece' to create a perspective that will allow us to focus on matters that have been all too little considered in the triumphal march towards the recognition of the needs of the poor for housing in the South. This concerns the increasingly hazardous nature of informally developed housing that otherwise is in process of apparent improvement or 'upgrading'. On the one hand one reads from time to time of disasters that hit whole communities – such as the chemical accident in Bhopal in India in December 1984 that killed over 20,000; landslides that demolished a

number of communities in Rio de Janeiro in February 1996 and the again in January 2000 or the exceptional floods that hit Jakarta February this year or the earthquake that demolished a third of a million houses in peri-urban Jogakarta in May last year all of which were disasters largely because of the places and/or the ways in which citizens built their informal settlements. On the other hand, there is increasing concern that the impacts of global warming are going to increase the incidence of such disasters and beyond this there is, lurking in the background, the problematic of the decline in energy that we will be facing in the coming years and the dire economic and with it human impact this will have on urban living and particularly on poor urban communities.

The perspective starts from the recognition that the very existence of informal housing denotes self-organisation of residents whose housing needs are not being satisfied by either governments or the formal house-building industry. Over recent years the right of citizen groups to create their own living environment has been accepted by governments in most countries of the South, acknowledging the failure of formal housing provision and tacitly accepting the right of people to some kind of housing (or out of a fear of the political repercussions of evicting them). In reviewing a number of case studies in settlement formation, Krueckeberg and Paulsen (2002, 234) note that "...informality does not mean a lack of social or economic organisation of squatter settlements... Almost all land invasions involve planning processes."¹

This may be led by an 'informal professional' (in some countries known as pirates) who structure the process of invasion but if this is to succeed then almost always there arises near the start some kind of resident's organisation at a minimum to defend their right to remain on the land and in many cases going on to organise improvements in terms of physical and occasionally even social infrastructure and/or to demand these of the authorities. The problematic that we will be looking at here is that the process is always pragmatic, opportunistic and incremental as opposed to the deliberate and designed nature of formal housing development: it inherently lacks much forethought about how it will survive conditions that are not immediately present at the time of initiation or expansion.

HOW ARE WE TO UNDERSTAND THE PROLIFERATION OF INFORMAL SETTLEMENTS?

It is difficult to pass moral judgement on what is happening but useful to discuss the issue briefly. When UN HABITAT (2003) or the Cities Alliance² refers to these settlements as 'slums' this implies a judgement of inadequacy of such settlements (and is surely seen by some residents as an insult!). On the other hand they have been referred to as 'slums of hope'³. To citizens of the industrialised countries walking among most of these settlements what is so often striking is the contrast between what are prima facie – to our eye - squalid conditions and the equanimity and even ebullience of the inhabitants of these settlements. Of course the residents would always appreciate improvements and may organise themselves to make these but can also tolerate living with the poor conditions they find themselves in – in most cases by choice.

¹ Perhaps this is rather too strongly stated where, in the author's experience, there are indeed many well-planned informal settlements on erstwhile agricultural land on urban peripheries but where small settlements on residual inner urban land such as river banks, railway verges, etc. often happen simply by an accretion of individual settlers with little by way of organisation.

² Calling rhetorically for 'Cities without Slums'!

³ First stated by Peter Lloyd (1976) in his book "Slums of Hope?" and since a slogan often used but contrasted with a notion of "Slums of Despair".

Whilst it is true that deteriorating conditions in rural areas encourage, often strongly, migration to urban areas, much rural-urban migration is because life in towns and cities is simply preferred on various grounds. The urban slum is where this starts with, in many cases, incremental improvements over the years that can end in the settlement possessing solid houses and all essential infrastructure deemed necessary for an acceptable urban life. Increasingly the inhabitants of such settlements are no longer rural-urban migrants but long term city residents who cannot find formal accommodation or who find that informal settlements provide better opportunities to satisfy their needs where formal housing is scarce and anyway too expensive.

This is in no way to condone the process when set in wider context of what could be provided in a fairer world. Perhaps the most striking case is Vietnam where the previous communist government planned its urbanisation process with cities dedicated to different economic sectors and housing provided for those employed in the industries and related services. Following the reform (*Doi Moi*), the country went over into a process of rapid informal urbanisation diverging radically from planned intentions with differential standards of housing as between social groups consequent of a widening income spectrum; much informally-built housing is built to a very reasonable level of construction but 'classic' unsanitary, makeshift housing areas are also proliferating. One can imagine a world that, instead of progressing into a post-modern neo-liberalism, had progressed into a universalisation of (participatory?) planned economies and societies pursuing a gentler and more evenly distributed development process that industrialised and urbanised in an organised way in accordance with the increase in available resources.

Well, it just didn't happen and almost nobody is prepared to think any more that this might become a real possibility in the near future as corporations, competing for markets and seducing every last villager into participating in the processes of consumption, tighten their ideological grip on a globalising development process involving an all-too willing public: consume, consume, consume! It is not only citizens creating informal settlements who fail to take the longer term consequences of their actions adequately into account: this is an inherent characteristic of the present world outlook and regime with 'formal' development processes taking into account only a little more coherently the consequences of the living environment produced. Living in a 'risk society', we all allow the risks inherent in modern life to escalate in pursuit of the satisfaction of our ever-expanding consumption desires.

THE NATURE OF GRASSROOTS ORGANISATIONS AMONGST INFORMAL COMMUNITIES

Where this conference is about the successes and failures of grass-roots actions in urban development, this paper is concerned not so much with the immediate successes and failures as with the risks being taken as a consequence of these actions. Before looking at these in more detail – and how poor urban communities might become more aware of the risks and aim their actions more towards avoidance - it is important to note the ways in which grass-roots actions have been evolving in recent years, especially in terms of more complex and sophisticated forms of organisation that provide the potential for more coherent action. It was noted above that almost all informal housing development involves a certain minimum level of community organisation.

These can be sorted into four categories. Firstly, village life in most countries involves traditional decision-making structures that provide a range of community services. These occasionally survive the transition to urban areas (in Moslem countries these survive quite well and the Balinese *Banjars* provide another example) but in much of the urban South they fail to make the transition and even traditional urban organisations tend to fall apart. On the other hand spontaneous development of new kinds of local association is relatively rare but not unknown.

A third formula is where independent external assistance is brought to bear on the organisational problems of informal settlements. This ranges from local elites taking responsibility through the format of the NGO, to projects of international NGOs and thence international development agencies up to the World Bank. There are many failures recorded of such actions that stem from the superficiality of interventions: poorly designed initiatives, too short an input to create lasting structures, lack of understanding of local cultural situations, etc. But in some cases the results survive, usually in modified form as they adapt themselves more to the specific needs and situations in which the citizens find themselves. Some of these (perhaps in certain respects most such) interventions have a political as well as a humanitarian aim, in the past more obvious than today.

Finally, there are instances becoming more evident of governments facilitating the creation of local organisations outside the framework of government itself or undertaking actions that bring informal settlements into the realms of the formal such as through titling and upgrading programmes and in the process initiating the creation of non-governmental community organisations (CBOs). An excellent case where strong NGO activity has succeeded in stimulating the government to substantial support of community self-organisation is the Community Organizations Development Institute (CODI) in Thailand. But there are increasing examples of changes in government attitudes from hostility through neglect to active support of community self-organisation in informal settlements. In addition to this development of local organisation and capacities, national and international associations, such as the Asian Coalition of Housing Rights (ACHR) and the slum/shack dwellers International (SDI) have been developing in recent years to represent the interests and to network and promote improved modes of organisation and kinds of intervention amongst informal communities.

Overwhelmingly, a central purpose of organising is to assert the right to occupy land. The next level of organisation is to provide local services or pressure the government to do so. In so far as ties to the formal political process is concerned this almost only involves political parties (or leaders) using the organisation(s) to strengthen their power base and not for the organisations themselves to attempt to change government policies⁴. And although some external interventions do assist in developing local participatory planning processes that might encourage a broader view of the situation in which the communities find themselves in that they might trigger wider actions to secure their future against possible as yet unexperienced hazards, the author has yet to discover an instance where such planning exercises have gone any distance beyond the meeting of immediate tangible needs.

HAZARDS FACING CITIZENS LIVING IN INFORMAL SETTLEMENTS

So what might we be talking about in referring to such hazards? These are here discussed in two parts: hazards relating to the immediate local environment and hazards emanating from more distant events that these days are generally referred to as 'sustainability' issues. Local hazards include: chemical accidents; flooding and other weather-related events such as typhoons; landslides; earthquakes and tsunamis. It is of considerable interest to note that in regions where these events have occurred in the more distant past, the traditional forms of building have often been adapted presumably through a long process of trial and error to minimise the problems and/or settlements have been located and local environments conserved or adapted such as to avoid the danger. Just as local social organisation fails to

⁴ There are, however, notable exceptions such as São Paulo where strong NGOs working for many years on the issue of improved housing for the poor, with close connections to the Worker's Party (PT), failed to halt the deterioration of housing conditions amongst the poor (see Guiler (2005)) albeit the longer term PT policy promises to take this in hand.

survive the transition to urban living, so also does the tacit knowledge of avoiding disasters in community development.

The pat answer is that beggars can't be choosers: rural-urban migrants build their communities on land for which the owners have no use (or which is unused precisely because it is hazardous to build upon) and build buildings pragmatically with respect to whatever materials they can find and afford in the urban environment. The first point is largely true. Informal settlements are often found along river banks known to flood (and by locating there exacerbate the tendency to flooding by restricting the flow of canals and rivers). They can also be found alongside railway tracks on land kept free by railway companies to keep a clear view for any persons approaching a track along which a train might be passing. Accidents amongst citizens (and children) living in such situations do in fact occur.

In cities located in hilly areas with steep slopes, informal settlements are almost invariably to be found on the steeper slopes. In situations where the soil is not firm, foundations are nevertheless unlikely to be built down to firm rock as this would be costly and hence the risk is taken that heavy rain will result in houses collapsing down the slope as has happened regularly in such cities as Rio de Janeiro as noted above. Before the Indian Ocean tsunami of 2004 that swept away coastal communities from Indonesia to India, tacit knowledge of how to avoid disaster, having been learned in the past through the fact of periodic tsunamis, had been progressively lost or ignored. Similarly, in many parts of the world where earthquakes are known to occur quite regularly, often little is known by people in urban communities of what land is more and what less appropriate to build on.

Regarding the appropriateness of buildings to withstand hazards, it is true to a lesser extent that the poor cannot choose and, indeed, in the case of flooding very poor quality housing can be found in many places nevertheless built on stilts explicitly to maintain floor levels above known flood levels. The problem is often that even the poor have aspirations in terms of the style of house they wish to live in and a poor version of a rich man's house usually fails both to possess the hazard-resistance of traditional houses or of the robustness of the houses of the rich. Thus, whilst the houses of the rich built on slopes have foundations adequate to the conditions, those of the poor do not (and so should not reasonably be located on landslide-prone slopes). Buildings can be built to withstand the highest winds but the poor either cannot afford - or choose not - to spend money on typhoon-proof houses in areas prone to typhoons. Building regulations in regions prone to earthquakes now quite widely adopt standards that will insure buildings against all but the most extreme events. The poor, however, who in the past built houses that flexed with and hence survived the earth's movement, now tend to build with materials and structures inadequately proof against earthquakes.

To some extent these problems are due to ignorance or a disregard of the hazards because the risks are deemed to be worth taking. The residents want to be close to where they find work⁵ and this is the only land that is available to them – albeit 'market eviction' has progressively 'encouraged' the poor to relocate from city centres to the peripheries in recent years. They may be too poor to afford to take steps to lessen hazards through adequate building structures or they may simply have other priorities and be prepared to take the risk. Can community organisations help to reduce the risks? A priori yes, through education and even peer pressure. However, there may be many problems in the way – and this is here illustrated, rather dramatically, through the case of Jogjakarta in Indonesia that is a highly

⁵ Kruecheberg and Paulsen (2002: 233): "Jobs drive the formation of squatter settlements nearly everywhere."

hazard-prone urban region that has, in fact, suffered severely from disasters – a major earthquake, a volcanic eruption and a series of tornados – all within the year 2006⁶.

EXPERIENCE OF POST-EARTHQUAKE RECOVERY IN JOGJAKARTA, INDONESIA

The most serious of these occurred early in the morning of the 27th May, 2006 when an earthquake struck with an epicentre less than 30 kilometres from the city centre, demolishing some 335,000 houses to the east of the city proper. Perhaps the city was founded several hundred years ago on this site because of the then knowledge that this is less earthquake-prone than the land to the east. Peri-urban villages have over the years been increasingly transformed economically into suburbs of the city and to the east these are located along a geological fault line on a subsurface that magnifies the impact of earthquakes which occur regularly in the region. Over the past few decades, residents progressively replaced traditional houses constructed of bamboo with palm frond roofing that easily withstand even severe earthquakes with tile-roofed, brick structures that required very little earthshaking for them to collapse and with the collapse of these heavy materials inevitably causing high tolls in death and injury.

Whilst there is a general knowledge that the whole of Java is earthquake-prone, building codes do not require houses to be built to high earthquake-proof standards – large public building were particularly prone to collapse in the recent quake - and in any case no notice is taken of construction taking place either in informal urban settlements or in peri-urban villages. The presumption was that the solid looking houses were a definite improvement over the bamboo houses that have come to denote poverty and low status.

The process of rebuilding was influenced by lessons learned from the process of reconstruction in Bandar Aceh, North Sumatra, following the tsunami disaster of December 2004. The main lesson was that managing the reconstruction through the use of external contractors was a good deal less efficient and effective than if the communities themselves manage the process. Thus from the outset, the 'paradigm' was to tap into traditions of community cooperation (known as *gotong royong*) and to pass money for reconstruction on to specially created local organisations (*Kelompok Masyarakat – POKMAS*) that would be responsible for allocated government-provided reconstruction funds and organising the work. There can be no doubt that this method has been extremely effective and, where externally-organised community financing structures had a history in many cases of misappropriation and failure, in this case there is no talk of unfairness or misappropriation in a situation where some 90% of the houses (over 300,000) were reconstructed in the spectacularly short time of 15 months.

This no doubt speaks volumes for the potential effectiveness of community self-organisation in the Indonesian context to recover from this disaster. But we need to focus on whether the reconstruction takes adequate account of the – always known but now very evident – dangers arising from earthquakes. Estimates vary amongst involved agencies and experts that between 50% and 80% of the new housing is earthquake-proof. In part this depends of what level of earthquake is taken for the standard and also that the estimates are made from samples relatively superficially examination rather than any systematic surveys. In fact a future earthquake well below the strength of that which hit the city of Kobe in January 1995 is likely to demolish a large number of the rebuilt houses.

There are several reasons for the shortfall in standards. Of course organising an instant training programme in earthquake-proof construction in 1,000 villages is clearly infeasible

⁶ The author has been involved in project work in Central Java over the past three years, this year focusing on disaster reduction and hence examining the response to the Jogjakarta earthquake.

and it took some months, with numbers of different organisations dispensing different advice, to get information to the builders as to what constitutes modern earthquake-proof construction; meanwhile much reconstruction had already started without such advice. Even when the advice was there – and the reconstruction money from the central government was flowing together with stipulations concerning materials and methods – appropriate building materials (eg the required quality of steel reinforcing) was not available in sufficient quantities and builders cut corners and householders decided to accept lower standards to save money for other purposes: a large house or finer finishes: earthquake-proofing is expensive and, as it is hidden from view is lost to the competition for status!

Several observations are pertinent in reviewing what happened. The first is to see how disaster can revive community cooperation which, however, we cannot guarantee will survive much beyond the reconstruction effort. There are certainly no signs that the experience might be used to think in general more widely about potential future problems. The central government has adopted a new law introducing mechanisms for disaster reduction – having in fact been in part inspired and structured by strong national and international NGOs that had been involved in the reconstruction effort in Bandar Aceh – and whilst this acknowledges and supports community involvement, it does not aim to inspire or empower communities to very much by way of independent planning of more than immediate disaster reduction.

What might have happened is that householders would remember the wisdom embodied in traditional ways of building and return to these. There is a certain syndrome whereby householders have rebuilt their houses but remain traumatised, fearing the next earthquake and not trusting that their new house, even built to recommended standards, will survive. So they continue to live in temporary shelters constructed of locally available materials (ie bamboo and palm) in the days immediately after the earthquake and the new house remains vacant but effective as a symbol of local status. We can see from this the way in which the house is an essential symbol of who one is in the society. Asking the question as to whether it would not have been wiser to return to bamboo housing (which also provides a more comfortable interior environment in the hot tropical weather than houses of brick and concrete) universally receives the answer that this is completely unacceptable as it has the stigma of poverty and lower status of the occupants.

Perhaps the Javanese are more status conscious than the citizens of other countries where the inhabitants of informal settlements face risk of disaster. However, the very notion of 'slums of hope' is that citizens are striving to be included in modern urban culture and benefit to the maximum from what this has to offer. 'Slums of despair', if it is genuinely possible to make the distinction, would certainly not be expected to be proactive in taking measures to reduce disaster risks in that their concern is simply survival now in whatever niche is left for them by the dominant society. Community self-organisation has in recent years grown in strength as a means to make certain improvements – and we saw in Jogjakarta also to respond to disaster. But it seems at this point unrealistic to expect much by way of broader and longer-term thinking to plan the improvement of the community beyond what seems to be immediately available or problematic.

SUSTAINABILITY PROBLEMS FACING INFORMAL SETTLEMENTS

This brings us to the second dimension of hazards, namely sustainability problems and the potential capacity of grassroots organisations to focus on these and perhaps reduce or eliminate them (this is the meaning of 'disaster reduction'). We need first to define what these problems might be. Generally sustainability refers to whether people's current level of welfare can be sustained into the distant (not generally defined) future or whether growth in welfare (improvement in the living condition of slum dwellers for instance) can be maintained in this way. Unfortunately, the literature of sustainable development has become fragmented

and diffuse to the point where there is no clarity at all even to assess the sustainability of current development processes.

What can, however, be said is that globalisation of the supply of even basic goods to the poorest communities has become so extreme that there is no way that a meaningful assessment can be made of the sustainability of local welfare or development processes independent of the sustainability of the global economy – or at best the national or regional economy within this context⁷. Sustainability could only be meaningfully asserted in a situation where local economies are moving in the direction of self-reliance with a knowledge and management regime of local resources that deliberately plans their use such that they are more or less indefinitely reproducible. With the exception of a numbers of very small intentional communities scattered across the rural North⁸, no significant action, nor even discussion, is forthcoming in this respect.

We might throw up our arms in despair and say there are too many potential sustainability threats to informal communities for us to be able to analyse and judge. Another strategy is simply to take what are the three most profound problems of sustainability today and discuss these in terms of their possible impact on informal settlements. These are: loss of biodiversity, global warming and energy depletion. The impact of first of these on local communities cannot be meaningfully assessed in that although loss of species is progressing apace⁹, as yet there seems to be no noticeable impact on any area of economy and welfare but merely a warning that in time whole ecosystems could collapse with repercussions for global food production. So far, however, we have, per lack of substantive information, to leave this in the background.

The consequences of global warming are, however, starting to be taken seriously as a significant problem for some local areas. On the one hand it is expected that weather conditions will be changing with more erratic rainfall (leading to worse floods and more frequent landslides) and possibly more violent wind during storms. This essentially takes one back to the discussion of the capacity and willingness of grassroots community groups to address the issue of disaster reduction: we are still looking into potential future disasters of which there is as yet no local experience¹⁰ and so which are rapidly discounted as risks. The second point is that we can expect the sea-level to be rising over the coming decades. At present this is happening at a leisurely rate but could accelerate should the melting of the Greenland and Antarctic ice caps accelerate. Some northern countries are starting to plan for this: UK legislation requires coastal local authorities to take possible sea-level rises into account in their land use plans. Meanwhile the World Bank has made a rough assessment of the impacts which rising sea levels could have on a wide selection of southern countries and is advising governments to start to make 'adaptation plans'¹¹.

So far what these would amount to is quite unclear in that no action has yet been forthcoming. One could imagine grassroots groups in areas likely to be affected by sea-level rises to be sensitised to the problem. Given that this manifests itself relatively gradually, steps could be taken to evacuate communities and move them to new areas. Of course the issue would be: where are the areas that communities would be willing and able to invade (or move legally) - versus the actuality of increasingly severe flooding. Flooding is actually already a regular occurrence in large numbers of informal settlements in cities on flat land

⁷ Atkinson (1993, 2007: 205)

⁸ FIC (2007)

⁹ See the Millennium Ecosystem Assessment: www.millenniumassessment.org

¹⁰ Major disasters elsewhere – such as resulted in New Orleans from Hurricane Katrina – makes no impact on people in informal communities even if they become aware of what happens through television.

¹¹ Dasgupta et al (2007)

and especially close to sea-level and the issue is: at what degree of frequency and severity (depth) of flooding might we expect residents of poor areas to totally abandon their houses and move elsewhere? Grassroots groups might be expected to play a limited role in warning people of what they can expect over time and facilitate people to find new sites but so far this has hardly penetrated official consciousness in potentially affected cities and certainly not become an issue for potentially affected citizens in informal settlements. Perhaps it is an area into which local grassroots organisations could now start to become informed and disseminate information to the citizenry. Perhaps this is being rather idealistic.

The issue of energy depletion presents a whole new perspective that has yet received very little attention – and none at all with respect to its impact on cities of the South and specifically informal settlements¹². It is now even in some official circles recognised that within the very near future (the International Energy Agency state within the next five years)¹³ global petroleum production will no longer be able to meet demand. There has been considerable recent debate on the consequence of ‘peak oil’ at least on the American lifestyle – that suburban living will rapidly become unviable as a consequence of sharply rising petrol prices¹⁴. This has also triggered limited discussion of the increasingly severe impacts this will have on the global economy¹⁵.

There is a very widespread hope-impregnated belief that as petroleum resources decline, other resources will fill the gap. Serious analysis of what these alternatives might be quickly reaches the conclusion that at best they are a long, long way away from being able to fill the energy demand gap once fossil fuel decline starts in earnest and this will become evident as soon as petroleum –today’s main energy source – goes into decline. This should certainly indicate that the era of cheap energy is past and beyond this that in the not too distant future available energy resources generally will be substantially more modest than they are today. In short, ‘development’, that relies entirely on vast throughputs of energy to function, will start to move backwards and thence accelerate to an unknown point where much that is taken for granted as a right in terms of life in the modern world is no longer viable.

There is an implication in much official writing on the theme that proliferation of slums jeopardises the achievement of sustainable development. Perhaps what is really meant is that such settlements are inadequate in terms of providing their residents with a minimum of what is thought of as a decent modern existence. Using the term ‘sustainability’ in the strict sense, one should merely be asking whether informal settlements operating at current levels of resource use can continue to support current populations and livelihoods at present levels into the future. If so, then these can be deemed to be sustainable. It is a great irony that poor communities are prima facie considerably more sustainable in the sense of being frugal in the use of resources than are the residential communities of the rich. One might object on moral grounds to the poor conditions in which so much of the urban population of the south lives, but this is not of itself, strictly speaking, a sustainability question.

This, however, is unlikely to mean that they will survive a general decline in the local economy of the cities of which they are a part. The income of citizens living in poor settlements is essentially dependent on ‘trickle down’ from the rich. A survey carried out in Bangkok’s largest informal settlement, *Klong Tuey* in the early 1970s discovered that, even then, less than 20% of the economically active inhabitants had work outside the community. The rest supplied services to those working outside the community, with a chain effect inside

¹² Brief reference to this can be found with respect to greater Jakarta (Jabotabek) in Atkinson (1993)

¹³ See the statement of the International Energy Agency reported on the Financial Time front page on the 10th July this year

¹⁴ Heinberg (2003, 2004), Kunstler (2005)

¹⁵ Strahan (2007)

the community that redistributed the money and allowed all to buy the means to life that, in physical terms from food to utensils and building materials, all came from without the community. With the possible exception of urban agriculture a decline in the wider urban economy will mean a decline in the economies of the poorer settlements as less money enters from the larger formal economy. Given the precarious nature of life in these communities, this is likely to mean immediate privation to the point of starvation¹⁶.

It is really quite extraordinary when one contemplates the problem that so little attention has been paid in the development discourse – including that concerned with the problematic of proliferating informal urban settlements – to the overwhelming dependence of the development process on growing demand for clearly non-sustainable fossil fuel resources. No UN agency displays more than passing interest in energy¹⁷ and the small programmes that support the development of energy supplies, often focusing on renewable sources, fail to look at the bigger picture concerning the general growth in demand and non-sustainability of most of the resources currently used.

Some 85% of the energy used in the ‘developed’ countries comes from non-renewable fossil fuel. Interestingly, the poorest countries are ‘still’ reliant – in extreme cases up to 90% - on biofuels. However, in so far as life even of the poorest citizens has become increasingly reliant on imported goods and materials, the production of these is heavily reliant on fossil fuels. Furthermore, populations throughout the South have grown beyond the capacity of biological resources to supply even their basic energy needs so that the use of fossil fuels has penetrated through to the villages – and certainly to urban informal settlements in the form of kerosene and bottled gas.

So rising energy prices and curtailment of availability can be expected also in cities of the South even in informal settlements that use very little energy by comparison with the ‘modern’ middle classes with their automobile-based and air conditioned lifestyle. So far this issue has hardly surfaced amongst any groups or writers¹⁸ outside the United States¹⁹. Until and including the *World Energy Outlook* of November 2006²⁰, the International Energy Agency was indicating that exploitation of petroleum resources could continue its upward path at least until 2030. The front page of the Financial Times of July 10th this year however reported the IEA as announcing “World will face oil crunch ‘in five years’”. So how sensitive might grassroots organisations be to the problems this will trigger and if so do they have ideas as to how to take pre-emptive action to protect citizens in informal settlements from the probable problems ahead?

INVOLVEMENT OF GRASSROOTS ORGANISATIONS IN SUSTAINABLE DEVELOPMENT

¹⁶ Lea Jellinek (1991) in accounting the history of an informal settlement in Jakarta noted that introduction of local regulations restricting informal trade and transport (pedicabs) in parts of the city led immediately to destitution and even starvation of some residents.

¹⁷ A small inter-agency unit called UN-Energy was created to look at the energy implications of the MDGs and hence to see what needed to be done in the short term to assure supply. It does not, however, take a strategic view of energy resources but rather makes piecemeal recommendations.

¹⁸ Following a recent lecture at Gadjah Mada University in Jogjakarta, one of the senior staff, who runs a Mercedes, noted that in general he is aware of the problem of energy depletion but hoped the ‘energy crunch’ would manifest itself only after his death. This is a very common reaction: I know it’s coming and I don’t want to be around when it happens!

¹⁹ Heinberg (2003, 2004), Kunstler (2005)

²⁰ IEA (2006)

Between 1997 and 2000, the author was advisor to a project in Surabaya, Indonesia, aimed at the development of community decision-making and action planning processes²¹. Not in itself exceptional – indeed fashionable – the difference was to try to introduce the problematic of sustainable development into the decision-making process. On the one hand, four and then later another ten localities were selected to develop action planning processes. It was realised that at this level it would be quite unrealistic to try to raise longer-term sustainability issues because these communities had immediately pressing problems of water supply, sanitation, solid waste management and so on. Local planning groups were established and trained under the heading of ‘Environmental Communication Fora’ (*Forum Komunikasi Lingkungan Hidup*) and these proceeded to identify their problems, the roots of the problems and thence how these might be overcome either by own activity or demanding the local authority to take action. This part of the project was more or less successful in that real improvements were made and so the planning process was seen to be efficacious.

Work also proceeded at the municipal level (Surabaya has a population of over three million) to develop a more strategic forum that would look seriously at sustainability issues. This was called the Sustainable Development Communication Forum (*Forum Komunikasi Pembangunan Berkelanjutan*). The intention was that this would take up issues in sustainable development and work with the municipality to develop a sustainable development strategy. It would then work with the local Fora to guide their action plans into the lines of sustainable development. Different stakeholder groups were identified and a training process initiated through local universities. What was quite clear was that the different stakeholders – even within specific groups (eg local entrepreneurs and academics from different disciplines) – found it difficult to communicate with one another as a consequence of their different interests and takes on life.

However, the day came when the Forum would meet as a group to have their first discussions of how to proceed. In fact in the days leading up to the meeting, street demonstrations had been building up, insisting on a change in government. And then it broke: the government fell and there was an immediate euphoria that people could speak out on matter (particularly corruption) that had hitherto been suppressed. The Forum met with the local authority - initially the local authority staff were supposed to be members of the Forum but the other members refused to accept them as members but rather as partners in discussion to sort out problems.

Maybe because of the specific circumstances, it is understandable that the Forum would have immediate political goals to address and that sustainable development is something to be thought about in the future... The Forum renamed itself simply Urban Forum (*Forum Kota*) and proceeded to shine lights into the working of local politics and the bureaucracy. Subcommittees were established and these were not totally unrelated to sustainable development: one dealt with pollution problems and the other with land planning – but with a particular focus on the way in which municipal officials had been selling public land and pocketing the money! But whilst it was clear that as radically new level of democratisation had entered the political arena in one stroke, by no stretch of the imagination could one say that a new dimension of thinking about a sustainable future had come about. In its own way the Form Kota was not only a success in Surabaya but was emulated in many other Indonesian cities as a more or less spontaneous tool to promote democratisation and transparent government following the end of authoritarianism but that is as far as it went.

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²¹ Atkinson (2002)

What appears evident is that whilst in recent years grassroots organisations have made great strides in helping to ameliorate living conditions for many millions of urban poor living in informal (or erstwhile informal) settlements, this has been overwhelmingly directed to addressing immediate, tangible problems. Incorporation of consideration of possible impacts of future disasters has been introduced into the kinds of advice and activity which grassroots organisations undertake only as a reaction to events that have taken place in the actual area where they operate (landslide awareness and precautions in Rio, earthquake awareness and precautions in Jogjakarta as examples) and – at least in the Jogjakarta case - with questionable efficacy.

Perhaps we have to conclude that grassroots organisations dedicated to improving living conditions amongst the poor exhaust most of their energy in defensive action designed to ensure that communities can remain where they are and the rest of their energy on incremental activities on the immediate horizon. We would not expect in the very logic of such organisations to find much by way of proactive thinking about problems not immediately visible, given the crowding in of actual problems apparently in urgent need of solving now²². Perhaps we should add to this the avoidance of engagement with formal planning procedures that might in principle be used to achieve sustainability goals of the inhabitants of informal settlements.

The fact is that informal settlements are precisely one of the manifestations of the weakness of planning systems in the south. For, if land use planning were rigorously conducted and controlled, so all householders would have to have planning (and building) permission and thus be de facto 'formal' – but with all the barriers to entry and costs which characterise formal housing development. We can say with some certainty that planning regulation in the South has in recent years become less rather than more rigorous in controlling development and is certainly lacking everywhere in much of a sense of what is and what is not sustainable²³. The present laxness of planning regulation is thus seen as being in the interests of informal settlers and it would be necessary for grassroots organisations to take up their own new kinds of initiatives were they to become conscious and committed to acting effectively on emerging sustainability problems.

Of course this automatically means that we would hardly expect grassroots organisations to be at the forefront of raising discussion on emerging global problems of a catastrophic nature that nobody yet has brought into any very meaningful focus. The fact that these will also spell catastrophe²⁴ for the inhabitants of urban informal settlements is simply par for the course. Just as they receive whatever benefits and problems they face more or less as supplicants of the political system as a whole, and the trickle down of economic resources, so we can expect that they will suffer more immediately and deeply than formal developments the consequence of global disasters. Perhaps the experience of New Orleans in the wake of Hurricane Katrina gives us a small preview where a vast pocket of poverty in the richest country in the world was devastated with little hope of recovery (much of the poor

²² Just the day before these words were written, in the context of an international conference in which the author was involved where he was discussing emerging problems of sea-level rise and steeply rising energy prices, a participant from Algeria expressed annoyance that issues of sustainability are a diversion from the immediate task of addressing the problems of the poor. The argument that it might be wise to look for solutions to slightly longer-term problems that might also be solutions to present problems rather than disregarding the future and finding that today's solutions make solutions for tomorrow's problems more intractable carries little weight...

²³ Atkinson and Graetz (2007)

²⁴ Whilst it might sound melodramatic to use the term 'catastrophic' it is worth noting that the chapter in the World Bank (2006) *Global Economic Prospects 2007* that analyses the coming problems of global warming uses the word eight times. And the Bank has yet to focus on the consequences of declining energy resources!

population dispersed permanently to other parts of the United States) even as the richer parts of the city revived.

There is really just one recommendation that flows from the above. This is that the educated supporters of grassroots organisations inform themselves more coherently with the probable trajectory of global problems as they might impact on urban slums in the South. This knowledge and information then needs to be transmitted to grassroots organisations in forms that will help them to conceptualise locally appropriate solutions. The record so far leads the author to be sceptical that there will be many ready listeners but as the problems begin to unfold (eg increasingly serious flooding events, skyrocketing energy prices and collapsing urban economies) then perhaps there will be more willingness to hear and to start to conceptualise solutions and to implement them!

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