

## Urban Sprawl. A Necessary Evil?

- **Towards a framework for research on urban containment for Kathmandu Valley, Nepal.**

### Introduction

This article addresses a framework for research on urban sprawl and on urban containment within the Kathmandu Valley of Nepal. The situation is extreme both in terms of peoples own responsibility for primary housing needs, and the overall agglomerated effects of uncontrolled urban expansion and sprawl. However, at the outset it is essential to recognize the achievements of peoples own efforts and the specific, contextual nature of sprawl and the process of the struggle for housing.

Subba (2003) has established a “baseline” study of causal processes of unplanned residential sprawl in the Kathmandu valley. The contextual, modest expansion he has documented both by the farming community from “within”, by in migrants and internal migration, has now been supplemented by aggressive colonization of agricultural land resources.

From a situation of mainly individual actors with “formal, unplanned sprawl” (Subba, 2003), the anticipated, contemporary situation is now different also with “new” actors and stakeholders and their large scale, area development projects of “gated communities”.

Sharp increase in land prices are also due to civil war and social unrest in large parts of the country. The demand is increasing, and prices are inflated also due to a considerable labour force outside Nepal and remittances. The capital region is where all want to settle.

This article will outline:

**What** is the present situation of urban sprawl within the Kathmandu valley and how is it developing? What is the specific, contextual situation, both before and today?

**Why** is urban sprawl the main form of urban expansion? Making a SWOT of the positive as well as negative sides, and its future opportunities and threats.

**How** to resolve the issues of both assisting people in their primary housing needs, and creating local acceptance for guiding growth and introduction of containment policies benefiting agricultural practice and land conservation? What has been done with this so far and what are the policy issues in the present context?

However, before these complex questions can be approached properly, more knowledge is needed about today’s “on the ground” reality, the process of development and about locally acceptable tools for growth management and containment. This will be discussed as the basis for a framework for research on urban sprawl of the Kathmandu Valley.

### **What? From traditional containment to formal, unplanned sprawl**

Kathmandu valley is one of the historic centres for civilizations developing from the cooperative and surplus nature of rich rice cultivation (Tiwari, 2001; Gutschow 1982). There are historical remains from a two thousand year history. The historical remains of today are mainly from the seventeenth century and later, during a rich period in East and South Asia with the late Ming dynasty of China and the Mogul rulers of India. And Nepal benefitted from being on the trade route.

Historically until the country started modernization from an autocratic rule in 1951, urbanization with the Kathmandu valley towns have been contained to non – irrigated, or so called *tar*, land. The towns were concentric of nature, but generally of an inclusive nature of different social casts and economic classes. A conservation strategy has been called for which addresses sections of the city, its interconnectedness, its “living city” environment, rather than only monument sites (Bjonness, 1994; 2004).

Mainly starting with urbanization in mid 1970ies and a new ring road built through Chinese international development co-operation, the Kathmandu spatial organization entered into a modern era. However, the tradition of concentrated settlements was increasingly violated and all land with approximate access to the towns was used mainly for residential sprawl, but also for urban services.

This was mainly at the residents own initiative where urban expansion into rural surrounding areas is on an individual, family basis.



**Figure 1.** Urban residential sprawl, on the western side of Vishnumati River as seen from the Buddhist stupa of Swayambunath. This is inside the ring-road.

## **Urban residential sprawl**

Subba (2003) in his PhD, "Urban containment policy: Does it present a hope to manage an impending urban crisis of the Kathmandu Valley?" has established a 'baseline' study of urban residential sprawl in the Valley. He addresses the causal process of unplanned residential sprawl in the peripheral locations of Kathmandu Valley. The process is formal in terms of ownership relations and approval of the individual building construction.

His detailed, comparative research reveals the contextual reality of unplanned sprawl. This is both in terms of access to fragmented peripheral properties for basic housing needs of expanding families, internal migrants from within the Valley and the in-migrants' from outside the Valley and their preferences in locating to settle in the capital region.

He has furthermore pinpointed the problems of haphazard land fragmentation, scattering of households, 'leapfrogging' into 'new' peripheral areas and creation of wasteful use of land.

The comprehensive and detailed study of Subba (2003), through qualitative, key informant interviews, also reveals about the livelihood struggle of subsistence farmers with fragmented agricultural land.

Subba (2003) is also discussing determinants of change and stability. In the village situation he stresses institutional land ownership that keeps land in a static state, low level of infrastructure services, and ethnic homogeneity as factors being stability.

It is important to understand the actors in the "land game". In "Residential land development and land actors in Kathmandu and Patan, Nepal", Falleth (1994) was highlighting the role of land brokers both in the sale and land subdivision process.

## **Why urban sprawl?**

*Why is urban sprawl the main form of urban expansion in the Kathmandu valley context?*

We think it is necessary to look into the strengths and opportunities urban residential sprawl creates for catering for peoples primary housing needs, before labelling its weaknesses and threats. The political situation in Nepal is very liberal, with market economy. The government has been weak and has limited economic means to support its people with basic services as education and research. If the whole government budget (2006/2007) is divided on the citizens of Nepal, there will be only 70 dollar for each per year. Of this only 45% goes to development sector within education, health, and infrastructure as water, hydropower and roads.

Of the urban population approximately 40% have to struggle below the nationally defined poverty line as defined by the National Planning Commission of Nepal.

Our SWOT analysis could be expanded to represent different key actors' views, opinions and suggestions.

**Table 1. SWOT of internal (family and local level) and external (valley and policy level) of urban sprawl development of Kathmandu valley.**

Internal (family and local levels)		External (Valley and policy levels )	
Strengths	Weaknesses	Opportunities	Threats
<p><b>Residential</b> Incremental process</p> <p>Self-control</p> <p>No dependency on government action</p> <p>Affordable - for a majority of families with free location choice</p>	<p>Not predicable end result of area plan</p> <p>Neglect of neighbours Interests and needs</p> <p>No government support for infrastructure</p> <p>High investment cost for individualized infrastructure. Unaffordable for the urban poor without government support</p>	<p>Caters for primary housing needs for a majority</p> <p>Allows for “leapfrogging” to affordable areas of priority</p> <p>Opens for family based investment, and individual responsibility</p>	<p>Overall unplanned development could result in deteriorating housing and living environments</p> <p>Violates gov. intentions of urban containment and nodal, area developments</p> <p>Allows the government to avoid, an active enabling housing and infrastructure strategy especially targeting the urban poor</p>
<p><b>Community</b> Mixed social fabric</p> <p>Community co-operation on access and infrastructure</p>	<p>Unpredictable social fabric</p> <p>Neighbours could block improved accesses and infrastructure</p>	<p>An inclusive social environment of acceptance and leaning</p> <p>Neighbourhood building with socio-economic and ethnic mix</p>	<p>Social, and ethnic polarization if no policy limiting “gated communities”</p> <p>Social and ethnic driven violence and insecurity</p>
<p><b>Rural links</b> Co-existence of sprawl with low density with rural communities</p>	<p>Leads to fragmentation of rural communities and use of land for agriculture.</p>	<p>Opens for intensive, urban agriculture in areas with low density</p>	<p>Overall threat for commercialization of arable, irrigable and high yield land resources</p>
<p><b>Land Use / - ownership</b> Allowing for mixed land-use and production, and income opportunities locally</p> <p>Stepwise intensification of land use</p> <p>Freehold, individual ownership</p>	<p>Mixed land use, with increasing density will lead to danger for pollution</p> <p>Uncontrolled end result</p> <p>High, uncontrolled land prices for freehold land</p>	<p>Gives valley wide flexibility to locate to Village Development Committee (VDC) areas</p> <p>Area - and community based up-grading</p> <p>Development of affordable lease systems</p>	<p>Threatens a regulated land use with zoning for more polluting activities and for irrigated, arable land</p> <p>Threatens national interests of land use planning of capital region</p> <p>Overall, speculative land market. Loss of community / public land resources</p>

For us it is important to give a balanced presentation. Horizontally, we make a distinction between internal issues at family and local level, and external issues at Valley wide and / or policy levels. Vertically we have residential sprawl, community, rural links and land use and ownership as headings.

Table 1 speaks for itself, and it makes quite clear advantages for peoples self-control with an incremental process of settlement in a process where the planning perspective and infrastructure provision at best comes after settlement as guided land upgrading.

For residential sprawl on the positive side the incremental, self control and affordable nature without government dependency are main strengths. And it is important to note that it caters for the opportunity for primary housing needs for a majority in the Nepali context.

On the negative side an important weakness is high investment cost for individualized infra-structure which is generally unaffordable for the urban poor without government support. And a treat in terms of policy, or the lack of it, is that it allows the government to avoid, an active enabling housing and infrastructure strategy especially targeting the urban poor.

But results can be both positive and negative. Urban sprawl gives opportunities both for community co-operation on access and infrastructure. Neighbours have to come together to solve road access and water supply. But there could also be situations where neighbours could block each others opportunities for improved accesses and infrastructure.

The benefits of rural links will depend on density. It could both be a situation where there is co-existence of sprawl of low density with rural communities. But there could also be an overall threat for commercialization of arable, irrigable and high yield land resources.

The land use / -ownership issues open for a similar debate related to densities. At a low density urban sprawl opens for allowing for mixed land-use and production, and income opportunities locally, stepwise intensification of land use and freehold, individual ownership. However, at Valley wide policy level this threatens a regulated land use with zoning for more polluting activities and for irrigated, arable land, national interests of land use planning of capital region and contributes to an overall, speculative land market with loss of community / public arable land resources.

### **Current and future land use and densities.**

Agriculture use has been the predominant land use in the Kathmandu valley, followed by forests and grasslands. Over the past decades urbanization has encroached upon "tar" agricultural land and more recently on more fertile land along the river flood plains closer to the developed areas of the city. It has spilled over into adjoining VDCs converting agriculture land to urban use. Agriculture land of the valley had reduced from 41,950 ha. in 1984 to 33,308ha. in 1994 and 27,570 ha. in 2000. Urban land had increased correspondingly from about 3,096 ha. in 1984 to 8,378 ha. in 1994 and 9198 ha. in 2000. (Data from report by Lalitpur Sub-Metropolitan City on Urban Development and Land Use). .

Halcrow Fox et al., a British consultancy firm, had estimated that the net area under urban development would be about 10,128 ha. in 2010 and 14,332 in 2015. The development plan 2020 (KVTDC) had estimated that if a gross density of 300 persons per hectare could be achieved within the existing urban areas, the demand for urban land in the next 20 years would be slightly over 3600 hectares. A study undertaken by MSUD in 1989 had determined that only 62% of KMC area and 52% of LSMC (Lalitpur Sub-Metropolitan City) area had been built up (Lalitpur Sub-Metropolitan City Office on Urban Development and Land Use).

*How does the increase in need for urban land correlate with population growth?* There is a general assumption that urban land use density, on the whole for the valley, becomes more extensive. This seems in particular to be so for the early period of fast urban expansion with the new ring road. From 1984 to 1994 the urban land increased with not less than 170 %. Corresponding population increase figures for the exact same period is not available, but the figure for the population increase between 1981 – 1991 is 82 % (Pradhan, 2002). This indicates a nearly double relative increase of land consumption compared with population growth in the eighties and early nineties.

However, there is a sharp increase of 47% in population for the three Kathmandu Valley districts between 1991 and 2001, or an annual increase of 4.7%. The annual increase in land consumption during the same period is only approx. 1.6%. This point clearly in the direction of a much higher population density of the most urbanized areas considering the level of the whole Valley.

According to a recent, scientific study of Haak and Rafter (2006) entitled. “Urban growth analysis and modelling in the Kathmandu Valley, Nepal” there is a high potential for further increase of land consumption for urban use the Kathmandu Valley. Change analysis between 1978 and 2000 determined an increase in urban extend of over 14.000 ha, about a 450 percent increase according to their study. Using a recent land use / land cover map and a Kathmandu Valley Geographic Information System (KVGIS) to model future urban growth they arrived at a consumption of 13.000 ha based on access and historical development patterns etc. This may be compared to a total year 2000 urban extent, including rural settlements, of 17,388 ha. Compared with an overall area of the Kathmandu Valley of 58,600 ha, including slopes and not habitable areas, approx 30,400 ha or 52 % will be urbanized.

This future increase of 75 % of the present urbanised area, as calculated by Haak and Rafter, is based on present topography and accesses. If an outer ring road is introduced, this figure will increase further. Several voices have been raised against the outer ring road project, which will destroy the granary of Kathmandu Valley.

This will possibly accelerate the trend of accumulation of agricultural land for urban use further and the predictions of UNEP and ICIMOD might be the reality: “The rapid urbanization in Kathmandu is stretching municipal boundaries and converting open spaces and agricultural fields into concrete jungles. Between 1984 and 2000, agricultural land in the Valley decreased from 62 to 42%. If this trend continues, by 2025 there will be no agricultural fields left in this once fertile Valley” (UNEP / ICIMOD, 2007).

A statement like this is far too general, and does not give any policy guidelines. But it gives a “worst scenario” to consider for politicians in terms of governance of a Valley

with fragmented boundaries and with limited, and mainly unsuccessful, attempts for both overall regional and local land use guidance and control.

### **How? Policies and future practice**

Subba (2003) has relevant proposals for policies for residential sprawl with the objective of arriving at a response to his main question: *“An Urban containment policy: Does it present a hope to manage an impending urban crisis in the Kathmandu Valley?”* The study of Haack and Rafter is important stressing the rural settlements and their expansion. This point in the direction of the potential of using them for an agro-pole strategy for the Valley (Friedmann and Weaver, 1979). The other point of the concrete on the ground analysis of both Subba and Haack and Rafter, but at a higher level, shows the importance of working with boundaries possibly more based on land use categories, rather than physical, growth boundaries which easily can be trespassed.

*The professional planners of the municipalities, are aware of the challenges and are proposing plans, but are they far too general in their work? And are the plans produced backed by political approval and are they applied, accepted and followed on the ground?* One example is Kathmandu Valley Urban Development Programme (KVUDP) which has devised a certain land use ordinance to guide the pattern of land use within the city and its surroundings. Basic guidelines have been worked out and followed for this purpose of preparing a current land use map. The main objectives of this zoning ordinance are:

- To retain the natural beauty Kathmandu valley.
- To retain healthy and clean environment of Kathmandu valley.
- To retain traditional and indigenous identity of Kathmandu Valley
- To conserve declared Conserved Monumental Zone’s historical and architectural environment.
- To manage the haphazard growth of in urbanization To systematize and plan the building activities that is going to take place in the future”. (Lalitpur Sub-Metropolitan City Office on Urban Development and Land Use).

These statements are well intended, but worthless if not followed up by appropriate and agreed planning and management policies and tools. Structural challenges of development, beyond the physical are not addressed. *Who are living there? How can the urban poor be benefitted? Why does urban sprawl occur?*

In his urban containment policy, Subba (2003) addresses relevant issues. He writes: “The findings of this thesis have wide implications for current policies, practices and values of people of the Kathmandu Valley. The findings also suggests that any proposal for urban containment has to be addressed at all three levels namely national, regional and local as highlighted by the key elements of the causal process of residential sprawl. They are:

- Elements associated with migration and natural increase
- Elements associated with leapfrogging
- Elements associated with uncertainties of informal market
- Elements associated with the transformation process

Parts	Key elements
<b>Demographic factors</b>	<ul style="list-style-type: none"> <li>• External in migration</li> <li>• Internal migration (within the Valley)</li> <li>• Natural increase</li> </ul>
<b>Households location determinant</b>	<ul style="list-style-type: none"> <li>• Preferences/ attributes/ policies fostering leapfrogging</li> </ul>
<b>Uncertainties of informal market</b>	<ul style="list-style-type: none"> <li>• Information of land (location, willing seller)</li> <li>• Land administration (removal of discrepancies)</li> <li>• Mediator (misinformation, price distortion)</li> <li>• Land supply ( reasonable choice, and availability)</li> </ul>
<b>Transformation process</b>	<ul style="list-style-type: none"> <li>• Entitlements (breakdown of land tenure)</li> <li>• Land fragmentation</li> <li>• Accessibility</li> <li>• Idle land</li> </ul>

**Table 2. The constituent parts and elements of causal process of unplanned sprawl (Subba, 2003, page 247)**

Subba (2003, page 248) states that “the attempt to base policy content purely on problem identification appears to be unrealistic. The knowledge of past experiences, ethics, and the contextual knowledge of administrative capacities and political processes are imperative in assessing the alternatives”. He has further writes: “Administrative capacities and political process will be somewhat implicit in the criteria, which aims at seeking *doable* policy choices consistent with the existing constitutional, legal, and institutional and resource frameworks of the Kathmandu Valley. It also implies that radical solutions are rejected consistent with the values of pragmatic incrementalism”.

Based on this his recommendation for an urban containment policy spells out general policy content with specific measures that will be necessary to tackle the problem of unplanned residential sprawl of the Kathmandu Valley:

A Policy choice in prevention of leapfrogging

- Land classification
- Provision of infrastructure services
- Subdivision regulations
- Construction approval and review

B Policy choices in removing uncertainties of informal land market

- Formalisation of land broker system

C Policy choices in improving efficiency in transformation processes

- Local area plan
- Land taxation on vacant residential lots

D Implications for policy choices

- Redefining institutional framework and relations
- Redefining agricultural policies near urban areas
- Maintaining a sustained link with national economic development planning

*What about recent policy statements of the intermediate government?* The government of Nepal has recently presented a Vision Paper also with specific reference to the Kathmandu Valley Campaign with three time horizons 1 year, 3 years and 20 years (Government of Nepal, 2007)

The main focus of the plan is improved infrastructure, mainly for water-supply and roads. This is concrete and useful, but it remains a challenge to link this with area based upgrading of urban sprawl, squatter settlements and the old cities of the Kathmandu Valley. Land use plan is to be introduced, but land use plans have never got the necessary legal backing and are not respected.

An outer ring road is to be introduced together with satellite cities on the periphery of Kathmandu valley. An outer ring road will lead towards total urbanization of Kathmandu valley. Limited access roads have been a major factor in channeling the urbanization and conserving land at the outer fringes. However, the government seems determined to go ahead with the project following up the idea of the regional plan for the Kathmandu Valley which was done by the government in 1969 with UNDP support.

The concept of satellite cities is a large issue. The agro-pole strategy (Friedmann and Weaver, 1979) advocates for urban agriculture based townships, and the whole idea of garden cities is based on self-sustaining communities also in terms of agricultural production.

The government of Nepal is mainly addressing the urgent “brown agenda” mainly associated with urgent sanitary and environmental health issues of dense and expanding towns. The “brown agenda” addresses the urgent and concrete local environmental issues, while McGranahan and Satterthwaite (2002) describes the “green agenda” as:

“There are the items within the more recent green agenda promoted by environmentalists (mostly from high-income countries): the contribution of urban based production, consumption and waste generation to ecosystems disruptions, resource depletion, and global climate change. Most such problems have impacts that are more dispersed and delayed, and often threaten long term sustainability”.

Furthermore they recommend:

“Reconciling the brown and green agendas in urban development requires institutions and processes that:

- Reduce the inequalities that are of concern to both brown and green agendas
- Enable collective and democratic responses to the public aspects of both brown and green environmental problems
- Provide a better understanding of the environmental issues different cities face”.

(McGranahan and Satterthwaite, 2002; op.sit. page 55.)

For the first point regarding equity aspects McGranahan and Satterthwaite (2002) stress the importance of “procedural equity to ensure that all person’s legal rights to (among other things) a safe and healthy living and work environment are respected, that they are fairly treated, and that they can engage in democratic decision-making processes about the management of the urban centre in which they live” (op.sit. page 44).

Bringing forward issues of equity and environmental sustainability, we would like to give reference to international, guiding principles for human settlement development as a point of departure for possible research areas and questions. We have been involved in research on Land Conservation and Urban Farmers Livelihoods in Tibet Autonomous Region of P.R.China (Tsering, Dawa; Bjonness, Hans Christie and Guo Hongwei, 2007) . This is an example of matching land use with critical issues of livelihood improvements.

## **New research and development (R&D)**

*How can new knowledge, based on a conscious value base for human settlement development, inform for the purpose of improved urban growth strategies?*

First, the value base. Before the Habitat II conference in Istanbul, UN (1995) agreed on three principles for human settlements: equity, environmental sustainability and civic engagement. To elaborate on what these imply, we will suggest: a broader view:

- Prime equity, social and spatial inclusion concerns
- Efforts towards environmental protection and sustainability
- Focus on civic engagement and empowerment through democracy and local government
- Address the objective of cultural continuity recognising the intangible cultural practices and heritage resources of the historical built environment
- Emphasis on skill development and work for all
- Recognising local / global relationships and conflicts

These are essential guiding principle for planning. In a research context on human settlement development these principles form a baseline in evaluation of relevance and overall sustainability.

Within the large field of urban growth, urban sprawl and agricultural land conservation of Kathmandu Valley, we would propose a fourfold research strategy. Here the Ministry

should link up with different actors, among them could be the master and PhD students of Tribhuvan University, Institute of Engineering, Master of Science in Urban Planning.

The **first** area of research should be on the *supply side*:

- *What does the split landownership imply for the process of change of ownership and fragmentation of agricultural land resources?*
- *Or what are the changing land ownership relations and roles of landowners and tenant farmers in a land fragmentation and land use transformation process?*

Subba (2003) makes the relevant point that “leapfrogging tends to hasten forces of disintegration of agriculture land by initiating entitlement claims on it”. He describes the vulnerable land owner and tenant situation affecting a sustained agriculture: “This causes separation of the land ownership between landowner and tenant farmer resulting in initial fragmentation of agricultural land with chain effects on land” (op.sit. page xx).

- *How can agriculturally based communities survive in an ever expanding urban sprawl?*

Going beyond the need to supply serviced urban land, the question raises the importance of agriculture based settlements and land conservation in urban fringe areas.

**Secondly**, on the *demand side*:

- *What would a change of research focus from a residential sprawl situation with individual, family based actors to address larger real estate and other actors imply?*

First, this would result in a focus with more actors on the supply side. The real estate developer could both be a broker or middleman, a farmer, a business man, but possibly mainly a real estate firm. On the side of the real estate developer the initial land cost is anticipated to be of importance, and the location choice of the developer is often far out on one of the arterial roads in the Valley. These are locations where sufficient land can be “gathered” at an acceptable price.

- *What are the local and agglomerated effects of larger actors as real estate firms and industries (e.g. within brick making) on change of agricultural land use and establishment of sprawl?*

A **third** part of a research strategy could address a sector investigation of “Gated Communities”. New gated communities and high rise housing is now in the market of Kathmandu. There could be three perspectives on this:

- *How do the new gated communities change the landscape of urban sprawl of the Kathmandu valley?*
- *Who are the real estate actors and what are their interests and priorities in terms of location, target group populations and neighbourhood development commitment?*
- *Who are the real estate inhabitants, what are their interests and motives to settle?*

The **fourth** part would address planning strategy based on local, specific understanding or local containment and agro-pole strategy.

- *How can an understanding of the specific local situation in terms of land use and potential for urban growth or agricultural development guide at higher levels of planning (local / VDC, municipal, district and regional)?*
- *How can local urban containment and agricultural land conservation may be achieved?*
- *What are means and roles of the public sector in influencing the orderly transformation process and guiding urban growth?*

We would suggest that the studies mainly have a local, contextual and empirical base. But for a more comprehensive study program it should also be asked what can theoretical approaches inform? First, the 'contextual approach' is bringing forward the principles and practices of settlement development of the past. It also applies a critical review of complex challenges and planning practices of the present (Misra, 1999; Healey 2007, 1997). Second and third, the contemporary approaches of 'agro pole' and 'urban growth boundary' to contain urban sprawl. And finally the pragmatic approaches of 'guided land development', 'guided land upgrading and 'land readjustments'. A challenge will also be to address sprawl from a perspective of territorialism and boundaries (Barth, 1969, Thakur and Bjonness 2001, Delaney, 2005).

Mahendra Subba's overriding question remains our main concern:

- *Urban containment policy: Does it present a hope to manage an impending urban crisis of the Kathmandu Valley?*

In the following we will limit ourselves to review international literature on Gated housing developments, before making some remarks in the conclusion.

### **Gated housing developments**

Atkinson et al. (2005) argue that "gated development appears to provide a socially problematic form of residential development which 'excludes', but nevertheless, in certain cases, appears to deliver a semi-autonomous form of neighbourhood governance".

The socio-spatial segregation which gated communities result in is highly problematic, and against an ideology of social mix to promote sustainable communities. New development to provide socially diverse neighbourhoods should be considered as the hallmark of a future community sustainability policy.

The semi rural context of several of the new gated communities in the Valley, have many pathways, for informal pedestrian accesses. New developments, especially of larger pieces of land tend to ignore these, and block free access and movement of the area.

In Kathmandu valley several of the new gated communities have been located outside the declared *nagar palika* or town municipality areas in what is called Village Development Council (VDC) areas. This results in less control by authorities both in terms of land subdivision and technical building controls. On the other side it can be argued that the new gated communities have efficient land use, and better infrastructure. But in a society where around 40 % are living below a government defined poverty line, are the gated communities a stark reminder of lack of solidarity and sharing.

The UK situation can be used to describe the dilemma of new developments of gated communities for the middle and upper classes in the Kathmandu Valley:

“In uncovering the existence of so many gated communities in England we suggest that we have now moved beyond a position in which such residential development might be described as either freakish or a temporary trend. Gated communities appear to have moved from being oddity in the British context to an aspirational model of privatized living. In this context we should be asking whether further residential extensions of this type of community should form part of a new vocabulary of urban and suburban development. If urban planning policies fail to tackle these concerns, gated development may become a symbolic challenge to progress in other areas of policy devoted to achieving social inclusion and equitable forms of development”. (Atkinson et al. 2005, op.cit page 420).

“Contemporary concerns about security exacerbated by daily reports of crime and terror alerts, and the social trend towards age-based segregation, may enhance the lure of gated enclaves. If planners hope to develop strategies for helping to deliver connected, embracing and attractive communities, then we need further investigation of the motivations and thinking of housing producers and consumers” (Grant, 2005, op.cit. page 310, 311)

However, Grant (2005) recommends further research with residents in gated communities. This would be useful both for comparative data and studies with earlier studies, and possibly across nations. The objective would be to enhance our ability to understand how different societies are *socially constructing the meaning of gated community living*. The study of Grant (2005) is a good example of applying a qualitative method in doing this.

The development of gated communities in the Kathmandu Valley is first of all an ethical question of supporting a development towards cementing a segregated class and possibly also caste society. Earlier cross subsidy has been applied in housing area developments. Should this be enforced also in gated community developments? Secondly, it is about the role of middlemen and actors in the land market, and the very scale of developments – and the signals it gives in a society struggling towards a new, and inclusive, Nepal.

## **Conclusion**

Subba (2003) (page 258) concludes by writing that “the content of urban containment policy includes an integrated package of interdependent tools based on planning, provision of infrastructure services, land use control, and land taxation. Cumulatively they represent a regional land management system of the Valley. Although the central concern of the proposed land management system revolves around land use efficiency, care is also taken that policy choices and their impacts do not impair the aspects of equity. For example the progressive taxation on idle land, emphasis on the development of surrounding small towns, market centres outside the Valley, and call for equitable growth across the country have emanated generically to counter various elements associated with the unplanned residential sprawl. But it is believed that the proposed

management system will be useful to regulate the general peripheral developments in the Valley". Subba further points to the need to regulate location of non residential sprawl like brick factories which are main contributors to conversion of fertile, arable land resources to urban land.

Growth management of Kathmandu valley is very much needed. The mainly normative proposals of Subba are a main contribution, but will it fall apart as "wishful thinking" in the Nepali political, planning and societal reality? He makes the relevant call for on the ground based proposals and better knowledge also on new forms of residential sprawl and on non residential sprawl.

In the work towards improved growth management, we see the following main challenges for the future:

- Implement a normative framework which serves *an equitable growth policy* within the Valley
- Address specific projects to cater for *basic housing rights and needs for groups below poverty line*
- Introduce an *urban containment policy* based on detailed land use investigations, land conservation measures of high yield, arable land resources and agro-pole developments.
- Address *primary urban infrastructure services* including transport in an *environmental perspective*

A research agenda should involve:

- *Build knowledge, and work towards policies, on land fragmentation of public and private land resources and rights of tenant farmers.*
- *Address the local and agglomerated effects of larger actors as real estate firms and industries (e.g. within brick making) on change of agricultural land use and establishment of sprawl.*
- *Implement research and arrive at policies on gated communities, understand the new actors and users better.*
- *Work toward an understanding of the specific local situation in terms of land use and potential for urban growth or agricultural development guide at higher levels of planning (local / VDC, municipal, district and regional).*

The issue of urban sprawl within urban growth planning has several challenging, additional perspectives which we are not addressing here. They include:

- Work towards an *agenda for environmental protection* and urban development where land conservation is an essential, integrated part.
- Initiate research on *relationships between residential densities, primary services, land use and conservation.*
- *Address knowledge on densities, open space and land use, also in a disaster mitigation perspective*

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