A CONSTRAINTS GOVERNED APPROACH TO DEVELOPMENT: LESSONS FROM TWO PROJECTS IN EGYPT

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Summary

Approaches to the housing problems encountered in rapidly developing urban areas can only be viable if they pay attention to the constraints upon action. These include obvious factors such as the difficulties encountered in obtaining land and lack of trunk infrastructure. However, more fundamental 'constraints' related to attitudes and institutional weaknesses are often present. The paper examines the Ismailia and Extension of Municipal Services (EMS) projects in Egypt and suggests that the first project was reasonably successful because it dealt with the 'constraints' while the second project failed because it largely ignored them. The conclusion is that projects must be structured to deal with such 'constraints' and examples are given of what this might mean in practice.

Introduction

The rapid growth of urban population is a problem for governments throughout the less developed countries. With few exceptions, this population growth has outstripped the supply of houses and services with the resultant deterioration in living conditions, particularly those of the urban poor. Although governments have attempted to intervene to provide additional housing, services and job opportunities, such intervention has failed to have a significant impact in all but a few cases. The majority of housing for low income people continues to be provided by the private sector, often illegally and without basic rights of land tenure or access to public utilities. This is true whether government efforts have been directed towards conventional housing or the provision of serviced plots through the 'sites and services' approach.

The general failure of public housing programmes to meet demand is well documented and accepted by specialists in the housing field, if not always by governments. Less generally recognised is the similar failure to date of 'sites and services' programmes. However, in all but a few cases this failure is a fact, whether attested by direct observation or statistics. The World Bank has been the main promoter of the 'sites and services' concept and statistics quoted in a recent publication describing this experience (1) illustrates to point. Between mid 1972 and mid 1980, the World Bank helped 29 countries to provide about 310,000 plots through the 'sites and services' approach. This represents an average of slightly less than 40,000 plots a year, housing a population of perhaps 300,000, that is, less than one per cent of the total annual population growth in Third World urban areas. Even allowing for those schemes not financed by the World Bank, the 'sites and services'

approach clearly does not currently provide a significant contribution to the solution to housing problems (2).

The present paper examines the reasons for the failure of government housing programmes, starting from the premise that development programmes in less developed countries must be governed by 'constraints' rather than perceived 'needs'. This does not mean that 'needs' should be ignored; indeed programmes in less developed countries must be governed by 'constraints' rather than perceived 'needs'. However, projects which attempt to meet 'needs' without reference to 'constraints' will inevitably fall far short of their targets. Commonly encountered 'constraints' on housing development are considered, particularly those affecting the 'sites and services' approach. Two projects in Egypt are used to illustrate the argument, the first fairly successful and the second unlikely to produce any tangible effect on conditions.

'Constraints' and the 'Sites and Services' approach

Although the 'constraints' approach should be applied to all urban development activities, we are particularly concerned with the 'sites and services approach to housing. Following the insights of people like Abrams (3) and Turner (4), who recognised the contribution which individual plot-holders can make to the housing process, this aims to provide serviced plots to individuals who then construct their shelter using their own resources, thus allowing the use of private funds for the construction of buildings, a greater spread of public resources and an increased supply of serviced housing. By carefully worked out pricing policies, the approach attempts to make schemes affordable to the majority of the population while ensuring cost recovery so that programmes can be self-financing. This very briefly, is the classic theory of 'sites and services' which has become the conventional wisdom of financing agencies, such as the World Bank.

Although based on the recognition of the opportunities presented by the activities of the 'informal' building sector, the approach does recognise the 'constraints' presented by limited physical and financial resources in the public sector. However, experience has shown that 'sites and services' schemes are subject to other 'constraints' which have resulted in their generally poor performance. Three commonly encountered 'constraints' are difficulties in obtaining suitable land for projects, inadequate trunk infrastructure, and unrealistic planning and building standards which enforce a high construction cost, thus reducing the affordability of housing for the urban poor. However, these cannot be absolute 'constraints' since they do not have a comparable affect on the informal sector.

Examination of the reasons for the relative success of the informal sector reveals that there are underlying factors. Informal sector land acquisitions procedures, for instance, involve a multiplicity of private transactions which ignore government regulations related to the transfer of land. The number of transactions and their independence of one another ensures flexibility in the land acquisition process. In contrast, official land acquisition procedures are usually unwieldly and subjected to protracted bureaucratic and legal delays. At the same time, the individual acquiring land and informal sector development is pursuing a single aim, whether it be to house his family or to profit from subsequent development. A government, on the other hand, has many aims and is subjected to many pressures and

influences, political and other. A government's determination to acquire valuable urban fringe land for new site development, including 'sites and services', will depend, in the case of 'sites and services' on its political commitment to meeting the needs of, and this approach, to housing the urban poor. Institutional arrangements, political and professional attitudes are therefore important 'constraints' on the success of 'sites and services' projects. Consideration of standards and trunk infrastructure provision shows that these are also affected by institutional deficiencies and unrealistic or inappropriate official attitudes. These 'constraints' are usually fundamental, and projects will only be successful if those initiating them recognise this fact and attempt to overcome them. This means that priority must be given to developing institutions and to convincing officials of the validity of appropriate standards. This requires time and commitment by all parties, government, funding agencies and consultants.

In summary, the underlying 'constraints' to 'sites and services' development often include institutional deficiencies and official attitudes. Projects will only be successful if they recognise these 'constraints' and attempt to overcome them. The basic characteristics of informal sector development is its flexibility and adaptability. In contrast, official procedures have an inherent tendency towards rigidity. The degree of success of projects will depend on the extent to which they can overcome this tendency. The examples that follow show that this, in turn, depends on the form of a project and the processes by which it is implemented.

Lessons from Projects

Ismailia

The projects in Ismailia, which included both 'sites and services' and settlement upgrading, grew out of the Ismailia Master Plan Study that Clifford Culpin and Partners were appointed lead consultants in December 1974. This study was part of a reconstruction programme for the Suez Canal zone initiated by the Egyptian Ministry of Housing and Reconstruction following the cessation of hostilities with Israel. Funds were provided by a grant from the United Nations Development Programmes (UNDP).

The Master Plan provided the population of Ismailia to grow from 150,000 to about 500,000 in 2000 and recognised that the existing government policy of providing subsidised accommodation for sale or rent could not deal with such an increase. It also recognised that the 'informal' private housing sector was a significant resource which added appreciably more unit to the national housing stock than all public efforts combined, at a cost well below those achieved by officially approved sectors. The Master Plan recommended that there should be a more flexible approach to housing, allowing for official involvement with the erstwhile 'informal' sector. Government intervention should be concentrated on the sub-division of land and provision of basic infrastructure.

The Ministry of Housing and Reconstruction approved the Master Plan recommendations and subsequently commissioned the Ismailia Demonstration Projects in May 1977 in order to develop in detail the Master Plan recommendations with regard to housing. The Demonstration Projects were financed by the British Ministry of Overseas Development Administration (later the Department for International Development) and Culpin Planning were retained as consultants. The aims of the Demonstration Projects were to focus on problems in Ismailia requiring immediate action and to formulate appropriate proposals capable of early implementation with a minimum of subsidy while maintaining the momentum achieved by the preparation of the Master Plan. The Demonstration Projects report was completed in May 1978.

Two important points should be noted at this point. The first concern continuity. The Demonstration Projects followed quickly after the Master Plan with the same consultant and many of the same key team members, both Egyptian and expatriate. After four years, project staff were truly acting as a team. At the same time, Ismailia Governorate officials had lived with the idea of involving the 'informal' sector over the four-year period and had identified with the approach as the only realistic and politically acceptable solution. The projects were not seen as something imposed from outside but as being reached after joint decisions by Governorate staff and consultants. Thus, political and professional attitudes had developed to give a climate of opinion within which the project proposals could be accepted. This meant that fundamental attitudinal 'constraints' had been eased.

The second point is related. Desert land in Egypt is under government control and although this means that the public domain controls a vast land bank, development of this land is not without problems, as we will see later. However, the sites chosen for the Demonstration Projects had relatively few of these problems. The larger, named El Hekr but later renamed Hai el Salaam, covered an area of 225 hectares of desert land of which 130 hectares had already been partly developed as an unplanned extension of the city. The name El Hekr originated in the fact that for many years people had been allowed to build houses in the area provided that they paid a small charge (el hekr) to the city. Thus, the plans for the new sub-division and development of vacant land were essentially a rationalisation and extension of a process which was already occurring with some official recognition. This meant that the project required development rather than complete reversal of existing official thinking.

Continuity in the use of consultants and key staff extended with the start of work on implementation of the Demonstration projects in late 1978. Implementation was assisted by the Ismailia Technical Assistance Programme, funded by ODA with Culpin Planning again providing technical assistance. In addition, ODA provided a grant of £ 100,000.00 (Sterling) to provide inception capital for the project. The relatively low level of funding and the fact that it was in the form of a grant are significant. Large scale projects supported by international loans must aim to recover at a sufficient rate to give a return on the loan. This is reasonable where institutions are established and functioning, but it is unrealistic to expect new or expanded institutions to perform on the scale required to ensure repayment of large loans. This is particularly true when the approach adopted is untried within a country. The Ismailia projects were not burdened by the need to repay large loans although the intention was that they would lead to larger bank funded projects.

Freedom from this kind of financial 'constraint' meant that full attention could be given to institutional development. Each project was managed by its own implementation agency which was given complete authority to plan and develop the project area, including powers

over the sale and purchase of land. The managing board of each agency included representatives of various service provision departments, the local city council, local party organisations and the Governorate, together with the Project Manager. The institutional framework, together with the problems encountered and measures taken to overcome them, has been described by Blunt (5). By working through the agencies from the beginning, it was ensured that the key institutional constraints had to be faced and overcome. It is all too easy to by-pass this constraint by using external finance, consultants and contractors but to leave a basically unchanged situation at the end of a project. The consultants provided considerable assistance in the early stages of implementation, but their direct role steadily diminished as the agencies became fully operational and could take over the workload.

Plot division and allocation began early in the project implementation period. The first 500 plots in Hai el Salam were awarded in July 1979 and were delivered to recipients between July and December 1979, within the first six months of the projects being established. Further plots were allocated and delivered. The early delivery of the plots gave the agency an income within the first year of its existence. This gave it financial independence and ensured that there were early opportunities to test implementation procedures and to give experience to agency staff. This in turn meant that changes could be made in the implementation programme in the light of experience. Once again, the opportunities for flexibility and for developing the institutions should be noted.

We have seen that the form of the project heled ease the key attitudinal and institutional constraints. The procedures adopted also helped to overcome other important constraints, including legal restrictions and the lack of trunk infrastructure. The legal constraints were minimised as a direct result of the commitment to the project by the Governorate. Existing legislation was used to allocate land to the projects and to give the project agencies power to buy and sell the land within their control. In a sense, using powers to set up a special zone where 'formal' procedures could be set aside. Similarly, existing legislation was interpreted in a way to allow revenue for land sales to be recycled indirectly into infrastructure provision for the projects. The important feature of the projects was that the pace of development of legal instruments for the projects was set by the Governorate. The pace was quickened by using existing legislation where possible but not forced beyond the Governorate's will.

The constraints imposed by trunk infrastructure deficiencies were overcome by providing for a basic level of on-site

infrastructure in the first instance. This meant limited road surfacing (none in some areas) where ground conditions allowed), public standpipes an on-plot sanitation in the early days of implementation. Services provision has recently been approved as part of a USAID water and wastewater upgrading and extension project for Ismailia. There was both political and public support for this incremental approach to services provision, again a by-product of the confidence that had been instilled by the project. Without this approach, implementation would have been delayed by several years. It is worth noting that the sequence of development was not unlike that found in typical informal areas in Egypt - there is perhaps a lesson to be learnt from this.

Except for similar but smaller scale programmes initiated and funded by the Governorate, it is disappointing that the Governorate has not been able to obtain finance for more ambitious land development projects in Ismailia, based on the experience gained in Hai el Salam and Abu Atwa. Such projects would have enabled the self-financing 'sites and services' and upgrading approach to be extended to deal with less favourable conditions while utilising the institutional capabilities developed during the projects. Preliminary project proposals were put to Central Government and the World Bank but were not included in subsequent loan programmes. A constraints governed approach to development in Egypt would have recognised the importance of building from the base provided in Ismailia.

Extension of Municipal Services Projects, Cairo and Giza Governorates

The Extension of Municipal Services (EMS) projects in the Cairo and Giza Governorates were formulated primarily by the World Bank in response to the acute problems posed by the rapid expansion of Greater Cairo. These problems are much greater in scale than those encountered in Ismailia. The Greater Cairo Region, which covers parts of Cairo, Giza and Qalubiyah, had an estimated population of just over 9 million in 1980. This is projected to grow to over 16 million by 2000. A recent survey (6. GOPP/OTUI) suggests that urbanised areas of Greater Cairo are expanding at a yearly rate of 1,200 hectares. About half of this expansion takes place on agriculture land and 80% of agricultural land losses are due to informal development of low to middle income housing. The remaining 20% consists largely of industrial developments which are also illegal. Informal development also takes place on desert land and various estimates state that between 70% and 90% of housing development in Great Cairo is illegal.

Informal development in Cairo typically takes to form of walk-up flats arranged in rows back-to-back with only small light wells to provide light and ventilation to rooms not fronting onto the street. Streets are narrow, often only 3-4m wide, reflecting the fact that no provision for access is made in the land subdivision process. Building are typically 4 to 5 stories in height, rather higher than the average in Ismailia, but in many areas, heights are increasing to 10 stories and more. Thus, informal developments in Cairo are characterised by high population densities and inadequate light and ventilation. There is virtually no open space and large areas lack piped water supplies, adequate sanitation and social facilities. Thus, they create an unsatisfactory environment while consuming a substantial area of agricultural land each year. This is important in view of the limited extent of Egypt's agricultural land.

The primary aim of the EMS projects was to replace this unacceptable development with better planned development on desert land. This would be achieved by extending infrastructure onto fringe desert land around the existing agglomeration and providing serviced sub-divisions on which the informal sector would be encouraged to build. Two points should be noted at this stage. The first is the size of the projects which required detailed designs for 1,000 feddans (420 hectares) of serviced land in the Cairo Governorate, and 500 feddans (210 hectares) in the Giza Governorate. Together, the projects would cover roughly, the same area as the agricultural land now consumed by development in one year. The second point is the proposed time scale which required production of detailed

sub-division plans, engineering drawings and contract documentation foe the whole 1,500 feddans within 52 weeks of the start of the work. During this time, the consultants were expected to identify suitable land, have the land approved, in particular for 'civil development' by the military, and then officially assigned to the EMS projects, and finally, agree layouts and standards with the appropriate authorities before moving on to the detailed design and documentation. At the same time, the consultants were expected to analyse the legal and administrative changes required to facilitate the participation of the private sector in formal land development process. The institutional analysis would also examine the arrangements which would be appropriate for managing the EMS projects. The objectives outlined above are ambitious, but it could be argued that their achievement was essential to meet the need for better low to moderate income housing in Greater Cairo. However, problems quickly arose because of constraints which were inadequately covered in the EMS project 'terms of reference'.

Work on the project began in August 1984 and two physical constraints quickly became obvious. These were the shortage of suitable land close to existing built-up areas and the lack of capacity of existing infrastructure. The shortage of land is not absolute since Cairo is bounded to the east by desert. However, large areas of the most suitable land are already assigned to land development companies, occupied by the military or designated as archeologically important and protected from development.

Land development companies are primarily concerned with middle- and higher-income housing and land under their control was not available to the EMS projects. Similarly, military held/ controlled land was unobtainable within the time scale of the EMS projects. The immediate effect of these land constraints was to push sites several kilometres from the nearest existing development while the only available Giza sites were so far into the desert that they could not possibly meet the requirements of the EMS project 'terms of reference'.

The remoteness of the available EMS sites and their even greater remoteness from the main centres of informal development made it certain that difficulties would be experienced in attracting informal sector builders to the sites. This clearly had important consequences for the viability of the projects, at least in their intended form.

Off-site infrastructure provision for the EMS sites required large investments which meant a reduction in affordability. Minimal initial provision, as in Ismailia, was not practical because of the remoteness of the sites. Equally important was the fact that detailed design of major off-site works could not be accomplished within the resources of the projects and, in any case, were properly the concern of the relevant utilities authorities. This this lack of utilities had already affected some of the land development companies which had provided on-site roads and services to large areas of land without the benefit of off-site facilities. Much of this land has been sold but little development has taken place, suggesting that land has been bought as an investment in the knowledge that off-site infrastructure will eventually be provided. Without action to provide this infrastructure, EMS project areas could suffer the same fate so that, far from providing a land resource for low-income housing, they would actually tie up land and prevent short-term development.

As the [EMS] projects progressed, it became clear that they were subject to even more fundamental constraints. One of these was the belief of some senior government officials that informal sector development was sub-standard not suitable for the use in officially sanctioned projects. It was also found that few changes in planning and engineering standards would be accepted. Since existing standards were framed with middle- and high-income development in mind, their retention would inevitably lead to an increase in the cost of development.

Other constraints were institutional in nature. There is considerable division of responsibilities and powers in the fields of planning and housing, both between central government and governorates and between different departments with the governorates themselves. Strategic planning for the Greater Cairo Region is in the hands of the General Organization for Physical Planning (GOPP), a national organization. The governorates themselves have small planning sections whose main task is to give approvals to planning applications. They do not have the capacity to handle the wider planning issues that attend a major land development project [such as the EMS projects]. Unfortunately, the organization of the [EMS] projects did little to help to overcome these constraints. The [EMS] 'terms of reference' asked for recommendations on institutional matters, in particular on the formation of a land development agency, but there was no provision for action on these recommendations within the project framework. Proposals by the [EMS] consultants that the projects should be amended to allow such provision at an early stage were rejected. In the absence of suitable counterpart staff, links between the [Cairo] and [Giza] governorates were made through advisers, attached to the governorates but not employed by them. These advisers were not specialists in land development, their role was to safeguard the governorates interests rather than foster institutional development. Thus, project preparation proceeded in an institutional vacuum.

The fragmentation of responsibilities, together with the rather unwieldy assessment procedures used by the governorates meant that the times allowed in the project timetable for reaching agreement on critical proposals were always exceeded. In particular, considerable time and effort was required to obtain military clearance for the selected sites. Other problems arose in protecting the selected sites from development and there were conflicts on land use. These constraints were exacerbated by poor record keeping and poor coordination between governorate departments. It proved almost impossible, for example, to define the exact boundaries of land concessions since maps showing these concessions were at an inadequate scale and boundaries had not been defined by grid references. Quarrying permits covering large areas of land proved difficult to revoke. All these factors are indicative of institutional weaknesses. The problems had not been taken into account when the projects were formulated [by the World Bank], and it was clear that they could not be resolved within the project time scale. Radical changes in the project design were recommended by the consultants but it has unfortunately proved impossible to make the changes needed in the project. The Cairo [EMS] project has continued in accordance with the initial requirements, moving more slowly as the intractable nature of the constraints has made real progress impossible. In early 1987, two and a half years after the start of work, the Cairo [EMS] project has not reached the detailed design stage. Work on the Giza [EMS] project ceased completely in late 1985.

Conclusions

The Ismailia projects have been successful in so far as they have resulted in development on the ground and have enabled the growth of institutions to manage that development. Their success is due in considerable part to the processes by which the projects were implemented. These ensured a high degree of flexibility so that the projects could be adapted to avoid or remove constraints as they arose. Serious constraints and the lack of political will for the implementation make further progress of the [Cairo EMS] project doubtful. If implementation does occur, development will probably take the form of conventional Egyptian subsidised housing. It will therefore have minimal effect on the activities of the informal sector so that unplanned development on agricultural land around Cairo is likely to continue well into the 21st century.

Three principles emerge from the experience of Ismailia and the EMS [Cairo] and [Giza] projects. First, it needs to be recognised that one of the reasons for the current failure of the 'sites and services' approach to significantly contribute to the solution of housing problems is that many of the officials involved still harbour conventional housing authority attitudes, resulting in the familiar problems od standards which are too high, inappropriate plot sizes, inappropriate locations - all condensed in the Cairo [EMS] case. This leads to the second principle; ambitious schemes should not be attempted when the concepts on which they are based are not locally accepted. Institutional development must run in parallel with physical development. Particular attention must be paid to these principles at the project identification stage. Where there is doubt about the acceptability of an approach, it should be introduced through a demonstration project of limited scale. Similarly, projects must be tailored to the institutional realities. Where existing capabilities are inadequate, a preliminary stage of institutional building accompanied by some physical development is essential. This is true even where the problems faced are on the scale of those found [, for example,] in the Cairo [EMS project]. As the institutional willingness and capability develops, it may be possible to undertake larger projects, more effectively meeting guantitative needs. But simplicity should always be the watchword. At the same time, there is a need for aid agencies to be flexible and to examine initiatives which may not be ideal, but which are politically acceptable. It is also preferable that programmes incorporate a variety of options and do not concentrate on one approach, whether this is 'sites and services', guided land development, core housing or some other. It must always be borne in mind that the failure of an ambitious programme incorporating innovative, maybe controversial, ideas may set back the acceptance of those ideas by many years.

There are also implications for the way in which projects are coordinated and funded. Despite the importance attached to institutional aspects by lending agencies/ development banks there are tensions between the need to deliver bankable projects quickly and that to provide time for ideas to be accepted and institutions developed. There is a strong case for increased co-operation between grant-aiding agencies such as UNDP and ODA and the development banks. Overall programmes should be formulated so that a preliminary grantaided stage, as in Ismailia, leads to the possibility of more ambitious programmes supported, as necessary, by loans. Whatever the situation, lending agencies should never be governed by the need to disburse funds, rather than development objectives. Another point concerns the way in which potential projects are identified. It is better if specific projects within a programme are identified by those working closely within the institution which is managing the programme. The lending agencies could assist this process by funding long-term advisors within relevant institutions.

Finally, what are the prospects for urban development in Egypt? It does seem that the only centre with the political will and existing institutions necessary to implement an extended 'sites and services' or self-financing new site development project is Ismailia. Any such project needs to be formulated quickly before momentum gained from the Hai el Salaam and Abu Atwa projects is lost. It will have to prove itself before there is a real chance of implementing a similar project elsewhere. In the meantime, the possibilities of repeating the Ismailia process in other centres, including Greater Cairo, should be explored.

Analysis of the situation in Greater Cairo itself suggests that the first priority, apart from that of reducing the rate of growth, is to transfer the axis of growth from the north-west to the south-east. This will require a comprehensive approach, including trunk infrastructure provision as a priority. Even so, it must be recognised that existing growth tendencies cannot be reversed overnight and there must be planning to contain and direct growth on agriculture land. This will need some changes in government policies. Extension of trunk infrastructure into desert land is a prerequisite to development and this seems a suitable area for international funding in the short term. This in itself will not be enough unless a high proportion of the housing provided is accessible to the urban poor. The difficult questions concern how this can be achieved. At present, there do not appear to be any overall answers. The important thing is to pursue initiatives, whether they be in public housing, some form of serviced land sub-division or a combination of the two. The EMS {Cairo] project has given the Cairo Governorate control over large areas of land and an overall structure plan within which those areas, together with adjacent land development company areas can be developed. However, the project has also revealed the lack of suitable institutions to manage this development. This constraint must be overcome before real progress can be achieved. This is the issue to which all concerned must now address themselves.

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