Community Model for Household Sanitation: Good practice in the musseques of Luanda

LUPP Principles for Good Practice

- Partnership with community members and key stakeholders, such as public service providers, is key to promote participation and sustainability.
- Solutions must be affordable to urban poor, yet financially sustainable.
- It is important to focus on strengthening community capacity to improve their lives.
- Ensure community and government ownership of initiatives with clear roles and responsibilities and accountability mechanisms in place.
- Mobilise community members and key stakeholders to best develop and plan sustainable solutions.
- Establish a code of conduct for key stakeholders to follow.
- Value existing knowledge and ideas.
- The impact of initiatives must be assessed at the household level.
- Find ways to ensure the voices of women and children are listened to and they are active participants in the decision-making processes.
- Ensure child protection policies are available to stakeholders and community members.
- Promote equality, non-discrimination and inclusion.

Problem and LUPP’s proposed solution

Twenty five per cent of children born in Luanda do not live to five years old. Malaria and diarrhoeal diseases are the major cause of high morbidity and mortality. In 2006 a cholera epidemic hit Luanda causing over twenty thousand cases and almost 300 deaths. Inadequate sanitation and poor water supply are the major contributory factors to the high incidence of diarrhoeal diseases. The lack of sanitation in the peri-urban settlements of Angola’s cities encourages open-air defecation, which in turn leads to the rapid transmission of various diarrhoeal diseases. The mortality rate in peri-urban informal settlements can be more than 20 times the rate in the centre of Luanda where there is better water supply and sanitation.

Latrines are recognised as a solution to inadequate sanitation in the crowded cities of Angola where there is no possibility of developing a sewage system in the near future. The sewer system in Luanda serves only the central “cement” part of the city and even there its operation is deficient. More than three-quarters of the city population, those living in the peri-urban musseques, have no access to any sanitation. The Government of Angola’s urban poverty reduction strategy has the objective of increasing the percentage of people with access to latrines to 79% by 2015. The key question is how to achieve this objective in an effective, efficient and sustainable way.
Over the last six years, LUPP has developed a community model for the building of family latrines, which is linked to awareness and education programmes to promote improved personal and collective hygiene. More than 4,000 family latrines have been constructed. In the areas where latrines have been built, residents report improvements in the physical environment and a noticeable reduction in diarrhoeal diseases. The main features of the community model are:

- **robust, proven, low-cost technologies**
- working intensively in a particular small geographical area until a coverage of 80% is achieved in that area, so that families encourage their neighbours to build latrines and the collective benefits are maximised
- families organise the building of their own latrines, but with a partial subsidy to the poorest and most vulnerable families
- sanitary education centred in the family, implemented in partnership with local organisations including churches and schools, which raises awareness of the need for (and collective benefits of) latrines.

Working intensively in a particular small geographical area (the *quarteirão* or block) involves building the capacity of the Residents’ Committees at that level so as to engage the residents in the building of latrines. Teams of community activists evaluate the level of initial coverage in each area, raise awareness about sanitation and hygiene issues, help the beneficiaries to plan the construction of latrines and supervise the building process. Training is also made available to local masons, who can be hired by those building latrines, and this helps open new opportunities for self-employment.

**Lessons learned**

LUPP’s experience shows that it is possible to reach a high coverage of the population (80% to 100% of families with a latrine) only if there is a subsidy for poorer and more vulnerable families, and only if there is community pressure to build latrines. Many of the poorest families are renters rather than owner-occupiers. Such poor families are often in particularly vulnerable positions and construction of a latrine does not constitute a priority.

A critical mass of community pressure can be developed to build latrines by the involvement of different actors, and by supporting community organisations for collective action that provide a dynamic to the process of construction. Experience has shown that strategic subsidies combined with peer pressure from neighbours can encourage even the poorest families to build a latrine and contribute their own resources up to at least 45% of the total building costs.

Each individual family is responsible for building and maintaining its own latrine, except in relatively few cases where neighbours agree to share. However the benefits of latrines are maximised when everyone in the area has one and faeces in the open-air have been eliminated. It is in the interests of families to encourage their neighbours to have a latrine, otherwise those neighbours who do not have a latrine might want to use theirs or to continue to defecate in the open air. Carrying out mobilisation with groups of families (and with community organisations) so that they agree to construct at the same time, turns latrine construction into a collective action that works towards this objective. This works best when working with groups of people who know each other, and when community structures have a stake in the success of the work.

The latrine building programme creates business opportunities for local professionals, who are trained in skills needed for latrine construction. It also helps to develop social capital in peri-urban communities, which can be tapped for other programmes.
Technical aspects

The technical specification of latrines depends on the economic and geographical context, the existence of sanitation and water services and the previous experience of similar initiatives. In situations such as the musseques of Luanda where water is not available at home or in the yard, but has to be carried by hand from a tap in the street, it is usually recommended that the most appropriate sanitation is improved dry-pit latrines. Pour-flush latrines can be considered provided that residents are willing to hand-carry sufficient water. Sewer-linked pour-flush, vault latrines, septic tanks and sewerage systems are inappropriate as sufficient water is unavailable (Cairncross and Feachem, 1983). In LUPP-related initiatives, the improved dry-pit latrine was initially judged to be the most appropriate, robust, low-cost technology for the context of peri-urban Angola. However as the financial situation of some families stabilised, a demand appeared for pour-flush latrines. LUPP therefore uses these two alternative technologies. Families are free to choose which to build, though the implications of each are fully explained. Latrine models are upgradable so that a family can improve their simple dry-pit latrines over time when financial resources, access to water and eventual sewage systems increase.

The model of dry-pit latrines employed is based in the SanPlat model first developed and widely used in Mozambique in the 1980s. A round-dome-shaped slab (1.20 metres in diameter) is placed on top of a one-metre diameter pit. The slab was chosen because it encourages round pits (which are more stable), it can be rolled like a wheel through narrow alleyways from the production or collection point to the house, it cannot fall into the pit provided that the diameter of the slab is smaller than the diameter of the slab, and the conical dome-shape is strong and eliminates the need for steel reinforcement. The top of the slab has supports for the feet and key-shape hole with a removable cover.

Improved dry-pit latrines do not require water, which is expensive in the peri-urban areas, and do not overflow when full. However Luanda’s peri-urban residents have been utilising pour-flush latrines since the colonial period, and often wash in the latrine area allowing water to run into the latrine. There has thus also been a demand for pour-flush latrines. The pour-flush latrine is made up of a pit (2.50 m in depth and 1.10 m in diameter with a capacity of 2.30 m³) covered with cement blocks and a superstructure and a seat also made with cement blocks. The pit and the superstructure, separated by a length of 1 to 2 meters, are connected by a 110mm flush-conduit.

Most musseque areas of Luanda have unstable soils with little clay and high infiltration rates. In such areas, pits must be lined with rectangular blocks, which is a significant cost in the overall cost of building a latrine. Research has continued into ways of reducing the cost of material for building the pit, although no satisfactory way has been found that does not put at risk the stability of the structure.

Slabs are produced in a workshop, though some communities have access to good quality sand and to water and in these cases the communities can produce their own slabs, under supervision. In most cases communities have no sand and only limited water, and so it is cheaper to produce at a centralised workshop.

The residents of an area need to show collective interest in building latrines, and this requires an evaluation of the community’s capacity to organise itself and work collectively. Partnerships are organised with Residents’ Committees, churches and local NGOs, and linkages are built between these partners and local government administrations. Families living in the quarteirão are encouraged to take an interest in building latrines by the Residents’ Committees and other local groups. From this a plan is developed for latrine construction and distribution of the latrine kits.

The process for the promotion and construction of family latrines in the peri-urban area of Luanda follows the following logical sequence:

| Municipal and communal administrations | • Establish the intervention areas  
| • Provide demographic and sanitary information |
| LUPP | • Promotes community organisation  
| • Trains local groups  
| • Provides information  
| • Provides latrines’ subsidy  
| • Funds partners’ local initiatives  
| • Monitors and systematises the process |
| Residents’ committees and community activists | • Inform about the delimitation of intervention areas  
| • Participate in the diagnosis of the local sanitary situation  
| • Instigate the beneficiaries to participate in the initiative  
| • Participate in the organisation and distribution of the latrine kits  
| • Monitor the construction  
| • Resolve local conflicts  
| • Organise capacity-building initiatives  
| • Monitor the process of construction of the latrines |
| Local organisations (NGOs and associations) | • Mobilise the community  
| • Promote the latrines  
| • Provide sanitary education  
| • Collect information |
| Beneficiary community | • Excavates the pit  
| • Fabricates the slab and the blocks (when required)  
| • Acquires the ventilation and flushing-conduit  
| • Transports the material  
| • Pays skilled-labour to build the latrines  
| • Uses the latrines |

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Social aspects

A number of different partners are involved in the promotion and construction of family latrines. An integrated and well-structured process has been developed to coordinate the activities of the various partners.

Training community groups

Following initial contacts between LUPP, local partners and the local government administration, a process is initiated to select candidates as community activists (preferably young volunteers and students) and masons. For 3 days the candidates for community activists are trained in demographic information collection, while the candidates for masons are trained in the construction of latrines.

Diagnosis/appraisal of the area

This activity is frequently undertaken by the Residents’ Committees and groups of community activists. Its objective is an initial appraisal of the intervention area to evaluate the sanitary conditions of the area in relation to the number of...
families with adequate access to a latrine. The duration of this activity depends on the number of houses in each block. When less than 50% of families have access to latrines it is judged that the area should be a priority for promotion of family latrines.

Meeting with the community

The objective of this meeting is to present the project, to discuss with members of the community the criteria for the intervention in relation to their own contribution and to select the first 12 beneficiary families. This meeting takes place on one day. Further families are gradually selected as work proceeds, depending on the capacity to distribute the kits and the level of participation of the community. Once selected, the families receive instructions about the excavation of the pit, the provision of sand and gravel, the acquisition of the connection pipe and the money to pay the masons.

Provision of subsidies

A few days after the selection of the first beneficiaries, a preliminary appraisal is made to understand the extent to which the selected families are following the instructions. If instructions are being followed, building materials (280 cement blocks, 4.5 bags of cement and two 6 mm steel rods) are provided in two phases: the second part of the building materials is only provided after the pit has been excavated and covered.

Supervision and training

LUPP's field assistants and the community activists' team follow the families' progress with latrines construction to ensure that the construction of the latrine is done correctly. The supervision is done in three phases. Two to three days after the selection of the first beneficiaries, a preliminary appraisal is done to evaluate the attainment of the criteria and contribution of the community. A second appraisal is done after the family received the kit and signed an agreement in which they promise to build the latrine in seven days. Finally, the third appraisal happens three to five days after the distribution of the second part of the kit in order to make sure that the construction is completed and the latrine used. During this period the beneficiaries receive information about the importance of using the latrine and its impact on public health.

If a family does not use materials, they are passed on to the next family on the list. There is thus an incentive for the whole community to ensure that materials are correctly and quickly used.

Regular monitoring

This is done by the community activists and the Residents' Committees. It happens 15 to 30 days after the completion of the latrine with the objective of evaluating its use. The results determine the elaboration of the programmes of health education. These programmes are normally implemented in partnerships with the schools, churches and health centres because of the local character of these institutions, which easily congregate people and facilitate the collection of useful information. Community theatre is also utilised as an instrument to disseminate information.

LUPP has built a monitoring system using its Geographic Information System and a database covering each family latrine owner in addition to more than 10,000 other families supported by LUPP partners to build latrines outside of the LUPP intervention areas.
Institutional aspects

Three types of institutions participate in the construction of family latrines: governmental (municipal and communal administrations), community (Residents’ Committees, community activists and community as a dynamic social group) and facilitating (LUPP and national NGOs). The different institutions work in partnership during the construction process, in which each of them has specific functions.

Experience has shown that, in order to be effectively implemented, community initiatives need to be known and validated by local authorities. For that reason, the family latrine programme is first discussed with local government administrations, as a way of ensuring their support, identifying potential areas of intervention and deepening the knowledge of the demographic and sanitary conditions of the area.

Supporting the organisation of local groups and reinforcing existing ones is fundamental in order to develop community organisation and collective action. This involves the constitution and subsequent capacity-building of community activists’ groups, in social mobilisation, community organisation, building of latrines and collection of demographic and sanitary information.

The facilitating institutions promote actions to stimulate community organisation, ensure the distribution of the subsidy of up to 55% of the total cost for the construction of the latrines, provide information and formation to the local community groups and fund local initiatives of national NGOs as a way of expanding the coverage of the initiative.

Financial aspects

For family latrines to have immediate and direct impact on public health, a high coverage of each geographical area of intervention is required. It has been found that when coverage reaches about 80%, a critical mass of peer-pressure is built so that neighbours take strong action against open-air defecation. Below this level open-air defecation often continues and the desired public health outcomes are not achieved. To achieve this level of coverage, it is usually necessary to subsidise latrine construction by the poorest and most vulnerable families and sometimes those renters who do not have a sense of ownership of the houses they occupy.

The table on the following page illustrates the cost of a pour-flush latrine, with superstructure, pit covered with cement blocks (10x20x40), 2.50 m of depth, 1.10 m of diameter, toilet and ventilation-conduit.
Sustainability

One of the strategic principles of the latrine construction model is sanitary education centred in the family. This involves building the capacities of all the key actors as a way of raising awareness of public health issues. This will sustain the impact of latrine construction, ensuring that they are used and properly maintained. The construction of latrines by quarteirões and the promotion of community activities in these areas create a gradual evaluation of social dynamics and an introduction of changes that stimulate collective action. The regular monitoring after the construction of the latrines is also fundamental as it permits the constitution of a useful database to analyse and measure the impact of the interventions.

LUPP's monitoring data shows that 95% of the families use and maintain the latrines correctly. This is a positive indicator that demonstrates the sustainability of the latrines model. Continued correct use and maintenance of latrines can be sustained by continued support to community-level organisations, for example through support to other community-level activities in the area.
What is LUPP?

The Luanda Urban Poverty Programme (LUPP) is a partnership between CARE International, Development Workshop, Save the Children UK and One World Action. It is supported by the Department for International Development (DFID) and has been ongoing since 1999. The second phase, LUPP2, ran from April 2003 to September 2006. LUPP2 was implemented in four of nine municipalities in Luanda, namely Sambizanga, Cacuaco, Cazenga and Kilamba Kiaxi.

What does LUPP do?

LUPP partners work in collaboration with the Government of Angola to support the government to meet its declared goal of halving poverty levels by 2015. The programme is implemented in partnership with civil society organisations, NGOs, service providers and government departments/ministries. LUPP engages to promote pro-poor policies, especially in seeking to guarantee the provision of basic services to Angolan citizens.

The purpose of LUPP2 was to influence equitable, inclusive, pro-poor policies and best practices for Angola for poverty reduction in urban Luanda. The policy influencing agenda was the overarching framework of the programme. LUPP seeks to influence poverty reduction in Luanda by:

- Demonstrating effective, sustainable, inclusive and replicable best practice strategies (models, methods and approaches) for basic service delivery (water, sanitation, rubbish collection, community crèches), livelihood support (microcredit, savings, Business Development Services (BDS) and consumer cooperatives), social capital, governance and poverty reduction more generally which can be effectively replicated in poor urban areas to bring about positive change in the lives of poor urban families;

- Facilitating active learning and understanding on urban poverty issues and policies by key stakeholders and producing strategic information on the lessons, messages and methods emerging from the models and approaches, adapted to demands for policy relevant information;

- Strengthening the commitment and capacity of local authorities and civil society to promote and implement inclusive and participatory local development;

- Promoting greater engagement, inclusion and accountability between government and civil society on urban issues, largely through the creation of spaces in which different actors can come into contact with the lessons, messages and methods, absorb their implications and take forward the work of integrating them into policy and practice.

More information on LUPP can be found at www.luppangola.org

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