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~~SWEDEN~~
Luanda,
15 March, 1990

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FOR DEVELOPING WATER SUPPLY AND
SANITATION (IRQS)

Ministro do Plano
Ministry of Planning
LUANDA
Angola

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WORLD BANK
ANGOLA, LOBITO BENGUELA URBAN REHABILITATION PROJECT
LOW-COST SANITATION COMPONENT

AIDE MEMOIRE FROM CONSULTANCY TO LUANDA, LOBITO AND BENGUELA
27 FEBRUARY TO 15 OF MARCH 1990

Sir,

In correspondence with my terms of reference, World Bank Office Memorandum dated January 31 1990 I visited Angola, Luanda, Lobito and Benguela from the 27 of February to the 15 of March.

The mission has been very stimulating indeed, and I am very much impressed with the enthusiasm and and commitment that government officials showed during my stay in Angola.

TERMS OF REFERENCE

The object of the mission was to continue the preparation of the low-cost sanitation component as outlined below:

1. collect information on low cost sanitation (latrines) in what refers to existing facilities, availability of building material, affordability, social acceptability and willingness to pay.
2. assess local institutional conditions for implementation of a massive latrine building programme.

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ADVANCED START

I arrived to Luanda on the 27 of February. After meeting with the National Director of Physical Planning, Mr A. Goma arrangements were made for my further travel to Benguela and Lobito on the 28th.

After presentation and discussion of the proposal from the October mission a request was made by the Director Provincial do Plano to start production of the new type of latrine slabs immediately. Moulds for the local production of prefabricated elements (slabs and platforms etc) were produced at a local carpentry in Benguela using local wood (eucalyptus) with designs from Mozambique and Malawi.

The technology proposed by Government for the first improved latrines to be built was domeshaped Mozambican type (diam 1.5 m).

During the mission a team of works-supervisors and craftsmen was trained. 16 improved slabs were cast and one was installed. A TV programme was produced presenting the sanitation programme, focusing health hazards (i.e. cholera) caused by lack of sanitation.

SURVEY

With the objective to asses existing sanitary conditions and to document existing latrine types visits were made to areas in the two cities with following characteristics:

- planned and unplanned areas
- high and medium density
- sandy and rocky soil
- flat and sloping ground
- normal and high ground water tables

Interviews were made with local technicians, local leaders and households concerning peoples attitudes to latrines, types and methods for building them.

Availability of building material specially cement was considered a problem which needed to be addressed by the project. It could also be anticipated that there was a willingness to pay for material and services for latrine building though there would always be a group of people who from socioeconomic reasons would be difficult to reach. In justified cases local funds were available to assist special cases.

The introduction of dry latrines was considered urgent though peoples attitudes to the new technology was not yet known.

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TECHNICAL KEY QUESTIONS

The following technical key questions were addressed:

1. Latrine frequency in the area is extremely low. Planned (urbanized areas) do have sanitation as this has been a requirement for building permit. In unplanned areas the frequency is around 6% giving an estimated average for the two cities of around 10 % only (estimate by Direcao Provincial de Servicos Comunais). People who do not have latrines refer to lack of material and instructions to build.
2. The latrines visited were of "pour flush" type often with a simplified septic tank and soak-away pit ("pia com poco roto"). The system may need emptying (manual) each year or two depending on size, amount of water used.
3. Self built latrines were mostly of squatting type, which is the most hygienic solution. People presently using open areas (90 % of the population) are also squatting. It is therefor recommended that new latrine designs should have elevated footrests designed for squatting.
4. Flat slabs are easier to integrate in latrine rooms. They do however demand reinforcement and are heavier. Only smaller slabs (diam 1.0 m) may be left without reinforcement. Domeslaped slabs require less material and can be made up to 1.5 m diam without structural reinforcement. It is recommended that the two types are tested in the programme.
5. The latrines visited were all roofed. There is however a serious shortage of roofing material due to lack of cement for production of Lusalite roof sheeting. Mud walls (the easiest solution to provide privacy) may require rain protection. Fencing of organic material (grass) or scrap (old roof-sheets etc) may give the required privacy and resist rain without being roofed. Traditional thatching material is not available.
6. Due to availability of building material and technical complications it was not recommended that vent-pipes should be fitted to latrine pits for improved fly and smell control.
For public latrines vent-pipes were considered necessary as a lid to cover the drop hole would normally not be used.
7. Transport of latrine slabs was considered a problem in areas of very high density and steep hillsides. Small slabs could be used on deep and narrow (round!) pits, provided that the soil is stable enough for the security of the builder and the users. Alternatively slabs could be cast on site. The possibility of making bottle-shaped stone-lined pits was also discussed as there was ample experience of work with stone for foundations in hill side areas (Lobito and Catumbela).

SECURITY RECOMMENDATIONS

Available ballast material (lime stone) should be laboratory tested for long term tensile resistance of the concrete before large scale implementation was taking place. Short term strength of slab should be made with a central line load of 6 people when supported on four diagonal points only (as done during the mission).

The need of lining of latrine pits in semi stable soils should be evaluated against the following factors:

1. The risk of injury due to collapse. (Heavy mud walls are in this respect more dangerous than i.e. grass walls.)
2. The health hazards related to delayed implementation of the latrine building programme ("optar para o menos mal").
3. Latrines built on sites which may be flooded by surface water (including temporary streams) should always be lined and elevated over the maximum possible flooding level to avoid collapsing in connection with heavy rains.

IMPLEMENTATION

It is anticipated that a total no of around 110,000 improved latrines need to be built before the year 2000. The rate of implementation will depend on the outcome of the promotional work and the acceptability. (A preliminary proposal is annexed to this report.) In this respect intensive promotion and health education would be instrumental.

It is recommended that complementary funding is sought for health education activities as the eventual health impact will depend on the good use and maintenance of the latrine and on personal hygiene.

It was recommended that households should be given possibilities to chose within a range of suitable latrine types in the beginning of the programme and that options should be more restricted in later phases of the project enabling implementation to advance faster when technical and social preferences were better known.

HEALTH EDUCATION

On the request of the Comisario Provincial, Sr Paulo George, contacts were made with UNDP/PNUD, UNICEF and SIDA/ASDI for possible funding of a complementary health education programme.

Mr O. Essien, UNDP Res Rep expressed interest in funding a health education programme, specially as the strong link to the World Bank funded urban rehabilitation programme was there. For further preparation a formal request was required for the formulation of a PFF (Project Formulation Framework) and possible allocation in the UNDP project pipeline.

Mr I.D. Fall, UNICEF Res Rep, said that concerns of the Comisario also were his own and UNICEF's. External funding i.e. from the World Bank would most probably be required. Mr Fall also mentioned that UNICEF has long experience in assisting emergency situations related to hygiene and health.

Mr S.A. Svensson, SIDA Country Representative, Mr D. Ehrenpreis, Country representative under installation, and Mrs K. Fransson (programme officer for health) expressed their serious concerns that the health education programme had not been included in the urban rehabilitation project. SIDA's present commitment was to fund the engineering programme as a preparation for the World Bank project and they could not see how the SIDA programme on short term could assist in this case.

Mr J. da Conceicao Ferreira, of the Ministry of Planning was of the opinion that the World Bank should be approached for possible funding of the health education programme and requested an outline of the project to be prepared for presentation to the Bank.

RECOMMENDATIONS AND AGREEMENTS

Subject to confirmation by the World Bank the following recommendations and agreements were made with Government for the continued implementation of the programme:

1. Given that Government want to implement the latrine building programme faster than suggested in the October report, corresponding changes should be made in the budget (annexed). Government should request additional advance funds from the World Bank (PPF) in accordance with the annexed budget proposal following procedures as earlier explained by Sr Roberto Chaves.
2. Based on findings from this Mission the World Bank will through SBI International prepare preliminary training material for construction of suitable latrine types and implementation of the programme.
3. The World Bank will through SBI International assist in technical specification of equipment necessary for the low-cost sanitation programme.
4. Purchase of equipment will be made by Government. For the purchase of equipment World Bank procurement procedures should be followed as described in guidelines available at Gabinete Provincial do Plano (Dir Freitas).

5. For the recruitment of the resident sanitation adviser, the proposed job description was approved with minor changes (annexed).
6. Government has provided a standard contract in Portuguese for approval of the Bank and for distribution to possible candidates.
7. The World Bank will through SBI International assist in the identification of suitable candidates. Final contract will be negotiated between the candidate and the Government of Angola represented by Director Provincial do Plano.
8. The Government will through Direcao Provincial de Servicos Comunitarios initiate implementation of a pilot programme aiming at:
 - (i) field testing of discussed latrine types;
 - (ii) identification of technical difficulties;
 - (iii) assess social acceptability and willingness to pay for improved latrine types as initiated during the mission;
 - (iv) field testing of alternative methods for local transport of latrine slabs, i.e.: hand pushed carts (tjova), lorries and pickups.
9. Pending equipment to be purchased under the above mentioned PPF funding transport equipment from the SIDA supported emergency programme could be used assuming that project equipment will "refund" corresponding services.
10. Government through Direcao Provincial do Plano (Engo Baltazar) will on monthly basis provide progress summary in Portuguese using appended form.
11. SBI International (Mr B. Brandberg) will on the request of Government prepare an outline of the proposed health education programme for presentation to the World Bank.

In conclusion, the low cost sanitation programme has taken off unexpectedly well. Government on Provincial level has now started both the construction and promotion programme. Given however the very severe conditions prevailing in the target area immense efforts need to be mobilized from Government and the population. The enthusiasm shown at this stage, however, indicate that the programme will be very successful.

Finally I want to thank all who contributed to make this mission both productive and pleasant, and I am looking forward to my next visit to Luanda, Lobito and Benguela which I hope will take place in about two to three months time.

Yours faithfully,

BJORN BRANDBERG
Consulting Sanitation Adviser

Cc: Mr Sampaio and Ferreira (Ministry of Planning, Luanda)
Mr Chaves, (World Bank, Washington)
Mr Gomes, (INPF, Luanda)
Mr Freitas (Delegacao Nacional do Plano, Benguela)
Mr Eissen, (UNDP, Luanda)
Mr Fall, Sakya and Johnsson, (UNICEF, Luanda)
Mr Svensson, Ehrenpreis and Mrs Fransson (SIDA, Luanda)
Mr Tannerfeldt, (SIDA, Stockholm)

Enc: 1. Preliminary plan for Implementation
(a) Graphic Presentation of the implementation
(b) Numeric analysis of programme inputs
(c) Revised Project Budget
(d) List and costing of equipment

2. Revised Job Description for Sanitation Adviser

3. Form for monthly progress reports

4. List of institutions and people contacted