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## Construction statistics

### Draft Report from a short-term mission

*November 15 to 26 2004*

**TA for the Scandinavian Support Program to Strengthen the  
Institutional Capacity of the National Statistics, Mozambique**

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## List of abbreviations

CO	Scanstat Coordination Office in Statistics Denmark
Danida	Danish International Development Assistance
DSt	Statistics Denmark
EUR	European Euro
INE	Instituto Nacional de Estatística, Mozambique
MZM	Mozambique Meticais
Scanstat	Consortium between Statistics Denmark, Statistics Norway and Statistics Sweden
SCB	Statistics Sweden
SSB	Statistics Norway

## Preface

This mission on Construction Statistics is a continuation on the works earlier done by Inga-Maj Rasmusson from Statistics Sweden (SCB), within The Scandinavian Support Programme. The Mission Report follows the intentions described in the report from her first mission on Construction Statistics, November 2003, and on the initial planning work done by a project group in INE/DESE documented in the report "Plan for a new construction statistics, March 2003". The focus is now on how to include auto-construction in the construction statistics. The work will concentrate on the problems of catching data on auto-construction building projects.

This new mission was conducted during 15 - 26 November 2004 within the Scandinavian Programme. The mission was conducted by Inga-Maj Rasmusson and Lars Carlsson, SCB. Inga-Maj Rasmusson is the main responsible for this report.

We, Mr Carlsson and Mrs Rasmusson, would like to express our greatest thanks to all nice persons we met for the kind support and the valuable information we received during our stay in Mozambique - especially the counterparts: Valeriano da Conceição Levene – Vice President of INE, and Natércia Macuacua – Head of Department for Statistics on Goods and Environment (CDEBA), who highly facilitated the work. We will also express our thanks to Azarias Nhanzimo - Director of Directorate for Sectorial Statistics and Business Statistics, Department for Statistics on Goods and Environment, who gave us a lot of valuable information.

## Executive summery

The results from this Mission on Statistics on auto-construction are listed in chapter 4, Recommendations, side 17 in this report.

## 1. INTRODUCTION

### 1.1 Background for the mission

The objective for this short-term mission was to assist INE to improve the Construction statistics, especially to strengthen the coverage of the construction activity. First of all we would investigate further and suggest methods to **include auto-construction works**, as recommended in the previous report.

The main objective for INE is to establish a statistical system that covers most kinds of construction activity - different types of building projects. Available data from both administrative registers and data collected in surveys should be used.

We will look at the possibility to **develop statistics** on construction works and its contribution (especially to the National Account and the estimation of the housing stock) of new-built buildings in Mozambique. The intentions are to increase the knowledge/skills and capacity in INE/DESE to produce useful and reliable statistics - of enough high quality - on Construction. In the developing process it is also important to regard the users demand of statistics on the sector.

The work done in this mission will be regarded as one step on developing the statistics on this sector.

### 1.2 Terms of Reference

The exact Terms of Reference for this mission can be seen in the Portuguese version "TERMOS DE REFERÊNCIA Para uma Missão de curta duração de 2 semanas de 15 a 26 de Novembro na Estatística de Auto Construção". The ToR are built upon the suggestions done by Mrs Rasmusson after her previous mission November 10-28, 2003. One extension is that INE wants to focus on data collection at district level.

**The new mission has the following specific objectives:**

- Follow up the recommendations from the previous mission
- Define a methodology for data collection of not registered auto-construction
- Define a methodology for administrative data collection of registered auto-construction
- Define the variables to collect
- Design tools for the data collection
- To conciliate the proposed methodology with already existing routines at DESE
- Train staff at DESE, MOPH and "Municípios" about production of good quality statistics using the methods and routines proposed.

**Expected results are:**

- A defined methodology for data collection of registered and not registered auto-construction
- A definition of the variables to collect
- Designed tools for the data collection
- To have the proposed methodology conciliated with already existing routines at DESE
- To have the staff at DESE, MOPH and "Municípios" trained about good quality statistics production using the methodologies and routines proposed.

## 2 CONSTRUCTION STATISTICS TODAY

### 2.1 Just a sample survey of big enterprises in the construction sector

In Mozambique today it is difficult to find volume statistics on Construction activities, especially there is a lack of statistics on Building and Housing. Today, it is not even possible to get reliable figures on investments in the main part of the Construction sector.

A big number of construction activities are done outside the authorized enterprises in the Construction sector. These projects are merely done through what is called auto-construction works, done by private persons or by enterprises of all kinds for own needs.

The construction statistics of today is based on a monthly sample survey. INE conducts a monthly survey based on data from enterprises mainly operating within the construction sector. It concerns both new construction and rehabilitation works of residential and non-residential buildings - of some extent - and construction of civil engineering, i.e. infrastructure works. The survey is based on a sample of big enterprises with at least 30 employees in the sector. The sample is drawn from INE's business register of about 450 authorized enterprises mainly active in the construction sector. The intention is to update the business register yearly. To have statistics of good quality it is important for INE to have a representative sample.

The data - collected by a questionnaire sent to the big enterprises - are merely **value**-data on new construction and rehabilitation works. It is about all types of construction projects: residential, non-residential, a mix of these and of infrastructure projects, like roads, bridges, wells, pipelines and others.

## 2.2 Some remaining problems

### 2.2.1 Under-coverage

Many construction enterprises are not represented in the survey. The sample-survey of today is based only on *big* enterprises mainly active in the construction sector. The most important units not covered are:

- enterprises in the construction sector with less than 30 employees
- some big enterprises in the construction sector not included in the business register due to updating problems
- auto-construction projects/works

### 2.2.2 Volume-indicators in Building and Housing statistics

The production of statistics today does not contain enough statistical information on housing indicators, such of total new floor area, number of dwellings in department blocks, small houses and single residences respectively in started respective in completed construction projects. The statistical variables today are mostly value data - costs of construction based on material and remuneration - and number of employees. For example, this lack of volume indicators does not make it possible to elaborate statistics to evaluate and follow the development in the housing situation of the county and to follow the welfare-situation.

Thus there is a need of more figures of numbers and volume on different construction projects and on detailed classification of types and status of building projects.

## 3 AUTO-CONSTRUCTION

### 3.1 General background

#### 3.1.1 Major part of all construction projects

The absolute major part of all construction works in Mozambique is done by auto-construction. Experienced people estimate that within the construction works for housing, the part of auto-construction could be around or even over 90 per cent. Thus there are lots of building projects done by auto-construction; the major part of them is expected to be without a permission to build (a Building permit). The under-coverage in the statistics due to the lack of figures on auto-construction works is very big.

There are legal projects of auto-construction, for which the investor have got a license to build (Building permit), and there are many more projects without a license.

In this mission we will concentrate on finding feasible methods to estimate both licensed auto-construction works (legal project with a building permit) as well as unlicensed auto-construction works (illegal project - project without a building permit).

INE wants to cover auto-construction works of all kind. To provide this we will investigate various sources of administrative data and suggest how this can be combined with data from sample surveys concerning different geographical areas (i.e. density and size), in order to be able to produce statistics on auto-construction in Mozambique. To handle this problem we have to make some investigations of auto-construction works, may be different sample-surveys amongst different kind of areas where people live, depending on density and size, etc. We will use available administrative data on these projects if we can find any of enough good quality. We will especially, at the first run, concentrate on using data from building permits.

### 3.1.2 Auto-construction - What is meant

First of all we have to define what kind of construction project are classified as auto-construction. An important question is: *How can you exclude these construction projects from those done by enterprises in the construction sector?*

Some significant aspects of auto-construction are:

- the investors are private persons, cooperatives, organizations and enterprises
- they do the project for **own needs**.
- the investors do the main part of the construction works themselves but may hire workers and specialists
- no construction company is contracted (**no contractor**) to do the main construction works.

The investor does the main part of the construction job himself. It can be done by using

- own hands
- own staff/friends
- hiring workers and/or
- hiring specialists to do parts of specific jobs, for instance of electrical installations or water-pipe.

A building of more than three stories cannot be classified as an auto-construction project. Also a project of a presumed value of an amount of specified upper level, which might vary amongst provinces, can not either be classified as an auto-construction project.

A very big part of the building projects applying for a building permit are auto-constructions and it is merely comes from private persons.

It is not possible to cover and catch all data on auto-construction projects by asking construction enterprises.

There are no enterprises reporting to INE when a project starts up.

The idea of what defines an auto-construction project is often quite unclear. It can differ between authorities on different administrative levels and areas. From the visits at the approving authorities in our research study in Maputo province it became obvious to us that people working at the local administration do not use that classification of projects (auto-construction projects or not). The people we talked to merely classified all building projects *not* done by an enterprise (of all kind) as auto-construction works. Obviously, as a result of this, all enterprises outside the construction sector (i.e. cafe's or shops) who want to expand and build a new building for own needs and do the construction works by own hands, then are excluded from the statistics on construction activities. This is not good for the quality of the statistics.

Anyhow - referring to The Terms of Reference for this mission - we will try to find a method to estimate the amount of auto-construction works even with this kind of restriction.

### 3.2 Information on new auto-construction projects from Building permits

In this mission we will study the possibility to catch enough data to estimate

- the *value/production costs* of licensed auto-construction projects and
- some interesting *volume* variables for this kind of auto-construction projects.

#### 3.2.1 Data needed. Where to find the data

To do any type of building activity of some size - even auto-construction - people - by law - must have a license to build, a building permit. The investor applies to the local authority to get a Building permit for a specific project.

Provincial authorities, Municipality Councils or District authorities (local) do the authorization of the project - approve and give the license to build. What kind of information the authorities request from the applying investor varies a lot between different provinces and districts (implying the types of administrative data/variables available). Hence the content of variables available and the quality of project-data in building permits can differ a lot across separate local authorities.

Building permits actually give the first information on existence of new licensed building project. From the building permit it is possible to find the address of the investor and to find some basic data of the project.

From the building permits you can catch data of the time/date of start of the construction work. The building permit gives a license to a building period. If the construction works is not finished during the period, the investor have to apply once again for another license (building permit) to a new period.

We have found out that people working at the local authorities don't distinguish between different kind of building projects when they approve and give building permits - for auto-construction project or for projects done by enterprises in the construction sector. The term/concept auto-construction is not universally used to categorize those construction projects. This is a problem referring to Terms of Reference for this mission.

Before using building permits as source of information on new building projects we have to investigate

- the availability and
  - the quality
- of data in building permits.

We have to get an answer to the following questions:

- **Which variables** concerning a building project can be caught from building permits?
- Of which quality are the data? Are the definitions and contents of the variables concerned the same in all local authorities?
- Are the available data **registered in IT-media** or on paper sheets?
- In which form are the data stored in IT-media or on paper-sheets?
- Is it possible for INE to do the collection of the data directly from the IT-media? Or must INE do a special Formula for the local authorities to fill in and send to INE?
- How is it possible for the Municipality Councils and the "District administrative unit" to report the data to INE? Sending it in by e-mail or on other IT-medium or by ordinary mail?
- How often may it be suitable by statistical needs, and how often is it possible for the approving authorities (Municipality Councils or the "District administrative unit") to register new collected data on new Building permits and report it to INE.

We also have to discuss the following questions:

- Do we need specific information on the dates of building starts and completion of the building project?
- What do we do if we can not get any reliable data on the costs of the construction project?

If we want, it is possible to get data on completion when the authority asks for inspection of the "finished" project.

The Ministry (MOPH) handles all data about official construction projects, i.e. data on construction projects for all state-owned institutions and state-owned contractors and is the supervisor for these projects. Private own enterprises in the construction sector are also regarded as official. These projects are not included in this study. The Municipality councils handles the other projects - merely from private persons and companies outside the construction sector.

The Municipalities do not report and send the data of building permits to any official institutions.

The administrative routines for Building permits are different between Municipalities. There is a great need to coordinate and harmonize the system across regions in Mozambique and make a standard routine of handling Building permits.

For rehabilitation works you need building permits, even for very small objects (painting and so on), but it depends on type of project. This kind of projects are excluded in this study

### 3.3 Licensed projects - Collection of data

For collecting information on licensed auto-construction from the administrative data on Building permits we have to implement a new routine.

#### 3.3.1 Specific questionnaire

One way to do this is to develop a specific questionnaire - may be like an open list of building projects (**see Appendix 2**) - asking the Municipality Councils and the District authorities to fill in and send it to INE. The list will contain data on newly licensed projects of auto-construction works. The data on the building projects will be caught from the building permits.

Once a month, or once a period of tree months the data on the list of new projects will be sent to INE.

INE have to - together with the Municipality Councils and the District authorities - work out a feasible new special questionnaire and routine for this data-collection purpose.

The Municipality Councils and the District authorities might even have to do an additional data-collection for these projects. Maybe the requested data for statistical needs are not found in administrative registers of licensed building permits, neither from IT-media - if data have not been registered that way - or from available paper-sheets. Then the Municipality and the District authorities have to collect these requested data-variables by taking contact with the owner of the project (investor) or his contact person (responsible engineer or supervisor).

Important data in the questionnaire/list of projects are for example:

- Identity data (name of investor, other contact person, telephone numbers, address/location)
- Data on locality of the construction project
- Type of building project
- Dates (month of start and of completion of the building works)
- Dates of renewing/prolonging the building permit
- Gross area/ new floor area
- Number of dwellings

- Total production costs (including costs of ground works)
- (Costs and quantities of different kind of used material. These data is nowadays not available. Maybe in the future).

During this mission a suggestion of the list /questionnaire has been worked out. **See Appendix 2.**

The National Account has expressed their great need of detailed data – cost and quantities - on used materials and remuneration costs.

### 3.3.2 Missing data

There are just a few data you can fetch directly from the document/paper of the Building permit: identity-number of the building project, identification data on the investor, localization of the building and type of building. From the fee for getting the Building permit you can estimate some information of floor area.

A Drawing plan of the buildings/-s in the project is always required when applying for building permit. The plan is done by an architect. From the Drawing plan of the building/-s the local authority can fetch some data:

- information on type of building
- useful/gross floor area/area covered by roof
- number of rooms and
- name and phone-number of contact person (i.e. the architect).

***To check the ideas mentioned above we will do a pilot study in the next part of the consulting mission concerning auto-construction.***

Then we will check out how this method function in real situations.

### 3.3.3 New law – more data

In the research job we found out that the authorities usually do not request any data on calculated cost for the construction project for giving a Building permit. Indeed, there is a new law that statue gathering these data of cost for giving building permit. The Municipality Council and the District organizations are now working out new routines to handle what is stated in the law.

For the future, maybe, the new “regulamento” (statue) for the routine of getting building permit will result in a situation of more frequent licensed auto-construction projects compared to today. (Today there is a big share/high rate of unlicensed projects – roughly estimated to more than 90%). Then the situation will be better; more of the needed information will be available, both concerning the number of new construction projects and concerning the value of the projects.

### 3.4 Estimation of data on projects without a license

#### 3.4.1 Background

It is a obvious fact that a big part of the residential buildings are built without a license (building permit). Often the investor do not applied for a license or do not get any license (unlicensed project). This concerns auto-construction works. The time between applying and getting a license is often too long and the people can not wait starting the construction work until they have got a license. Some of these projects are licensed afterwards, but not many of them. Many people can not afford or wait to get a land to build on. These peoples only chance to get somewhere to live are to build a house without a legal permission.

It is not easy to find ways of including these unlicensed construction works in the construction statistics. It will be a big problem to find feasible methods. In some areas - even large areas - there are lots of these unlicensed projects. In those areas it is even a rather hard task to separate new “houses” from old ones. Solving these problems takes time and requires lots of investigations and developing work.

In the previous mission, a year ago, several possibilities to estimate the unlicensed new construction works were meant; by ocular inspection of a sample of spots (of some space), by air photograph, by quantities of used building materials and by fetching data as a part of Informal sector.

Air photography is maybe not feasible at the moment (due to high costs). Studying quantities of used building materials is another possible source of information, but data on the quantities are still not registered and are not available. You first have to collect data on some selected sort of the materials and then develop a method to estimate the total used quantities. Then you have to translate it into number of new houses. This method demands a great amount of researching job. Having data on auto-construction as part of the Informal Sector Survey is not a feasible method today, and can not be recommend for the moment.<sup>1</sup>

#### 3.4.2 Proposed methods

Even if the methods above probably will be of some importance in the future, the main source of information on new unlicensed auto-construction in short term will be some carefully designed sample surveys on stratified areas of different density of existing houses or of population/families. You have to estimate the number of new constructions in classified types of zones, related to the size of the zone (measured in either hectares or number of dwellings, families or inhabitants).

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<sup>1</sup> Other entities for inspiration could be the World Bank, [Hernando de Soto: The mystery of Capital](#)

For the moment the following two methods are proposed. Area based - number of new built houses (construction works) per area unit for a defined and classified type of zone, and secondly Ratio of number of new to old houses - based on number of new built houses related to already existing houses.

- Area based - counting the number of new constructions per sampled area unit of a classified type of area. The number on new buildings will be representative for those kind of areas. You have to measure all areas of the same kind and estimate the total number of new built houses in these similar areas. The same process for every defined group of areas. First of all you must investigate areas of the same kind and do a classification of similar areas in groups.
- Ratio between number of new built houses and number of existing houses or between new built houses and population in some area. We then have to ask local responsible people and local authorities about number of new built houses and the number of already existing houses in bigger areas / alternatively fetch data on number population in this district/special area from the latest census, if possible.

Both methods are variations of the same concept. The only thing we are interested in is the number of new auto-construction works in classified types of zones, and the size of those zones. If we thus can estimate the number of construction projects in these classified types of zones, and if we can estimate the total size of those zones, then we can evaluate the total number of new unlicensed auto-construction projects.

The underlying assumption behind this choice of methods is that the construction works of buildings in Mozambique are unevenly dispersed trough out the country. This means that you perhaps do not need to cover the whole country when roughly counting the new auto-construction works of housing. This is maybe more important when calculating the value of the new construction works.

### 3.4.3 Area based. Number of new construction works per area unit

Where a crowded area/zone is of big extension and rather homogenous in density and frequency of new constructions or other aspects (growing suburb, organization and mixture of people) we can sample out one or a few spots within the area and contact some chief person of the very local administration and interview him and ask for the number of new constructions within this sampled spot or area during the last 12 months. These studied areas will be strictly measured (m<sup>2</sup>, ha or km<sup>2</sup>) and regarded as representative of the total bigger area/zone.

The bigger homogenous areas - in the survey – from which you sample the small spots, will be sharply marked off from the surroundings.

A setback with this method is that there are just few zones that are homogenous enough and that today there do not exist any known clear classification of zones, suitable for this purpose. Anyhow, if we start the counting in the most important zones, this type of classification will be developed over time based on experiences and might be more and more useful.

The collection of data this way for this purpose will be done by persons engaged by INE. They must know well the conditions in these areas. The inspection and the counting in the fields *must not* be done by a person living in the area because that might jeopardize the possibility of getting any information at all. Our method of data-collection must not destroy the possibility of getting correct information. The counting and leaving information in the survey may not be regarded as done in connection with some authority.

There is need of a form to fill in and to guide the interviewing person. A simple questionnaire must be developed. It is important to give additional information how to fill in the questionnaire and to give explanations of the content of the variables asked for.

A proposal can be seen at **Appendix 3**.

#### 3.4.4 Ratio between number of new built and existing houses or population

In rural areas (and also Suburbs) you can interview and ask some chief of local administration about the number of new constructions during last 12 months and also about the total number of dwellings/houses within “his” area of the zone. Then you get the relation between new constructions and the total number of the existing houses. An advantage with this method is that it does not demand that the density of the houses in the area is homogenous. It is usable in rural areas. But still the method depends on knowing the rate of new auto-constructions and of the total number of houses in the area / alternative the number of inhabitants/families

Normally there exist a correlation between inflow of people to a area/zone and the number of new constructions in the this zone. Maybe it would be feasible to find a method to choose zones for the survey with a high inflow of people during last years. Before using this method when sampling areas to count, we must find recent statistics on local inflow within different parts of Mozambique.

To guide how to do the sampling of areas and to do the collection of data to estimate the number and value of unlicensed building project, we have to design a draft manual.

### 3.4.5 Estimation of auto-construction projects in a whole District/Municipality

How to use the results from sampled small areas on a higher level?

To estimate the number and the value of new auto-construction projects in a larger area (on a higher level) - on District organization or Municipality level - we have to use statistical data from both methods (mentioned above) for unlicensed projects and the data from building permits for licensed projects.

The calculations above gives the number of new houses constructed in a given area (normally Aldeia/Bairro). The most difficult part of the job is to find out how this information of a small local area can be used when estimating next higher level (normally District/Municipality). The following exemplified method might be useful to get an estimate of the figures on District/Municipality level (Maybe later it can be cross-checked with results from the Population Census 2007).

1. MOPH at District/Municipality level will probably give information about which areas (Aldeias/Bairros) are most similar to the ones you have investigated and proposed to be in the sample survey. Then you have to multiply with the calculated ratio – you then have an estimated number of new auto-constructions in that stratum within the District/Municipality.
2. The sum of all strata gives an estimate on the number of new auto-constructions within the District/Municipality. This number might be smaller than the real value if you have omitted some important strata, and it might be too big if you have overestimated the ratio.
3. The sum of all estimated data on district level will estimate the total number - and value perhaps - of auto-construction works within the Province.

## 4 RECOMMENDATIONS

1. There is a need to develop and test new forms/questionnaires for collecting data. INE must - together with the Municipality Councils and the District authorities - work out new feasible special questionnaires and routines for the purpose of data-collection, on both licensed and unlicensed auto-construction projects.  
Proposals : See Appendix 2 and Appendix 3
2. It is important to work out instructions with additional information how to fill in the questionnaires and to give explanations of the content of the variables asked for.
3. Do two different **pilot studies** testing the proposed routines for data-collection on auto-construction
  - One data collection from the routines of giving building permits for licensed auto-construction projects. Test and refine a flexible method to collect data of reasonable good quality.
  - One data-collection from local administration-bureaus responsible for at least three local areas/zones, where we can have a sample survey testing the methods to estimate the number and value of un-licensed auto-construction projects, like described above.
4. Do a written manual how to collect data in the local areas outside urban areas. We have to design a special manual to guide how to do the sampling of areas, to do the collection of data (ask for the data) and to do the final estimation the number and value of unlicensed building project.
5. Try to find out if it is possible to use information from other surveys to refine where and when to do the data collection. For example may be if it could be possible to augment planned surveys with a few data-variables on construction.
6. Work out a statistical method and implement a data-routine to do the production of the statistics.

## 5 RESEARCH STUDIES

### 5.1 List of visits done

Date	To	Purpose	Results/Findings
16/11/2004	Costa del Sol, Bairro Ferrovario, Mahotas, Marraquene, Benifica, Kongolote, Matola	To give the consultants an insight into actual housing situation	Were given
17/11/2004	Marraquene District administration and MOPH	To have the licence permit process explained at District level	Application => Distr.Adm. => Distr.MOPH=> Prov.MOPH=> Distr.Adm.=> Licence Approved
	Matola Municipality administration	To have the licence permit process explained at Municipality level	Application => Municip.Adm. => Mun.Adm.Tech => Municip.Adm. => Licence Approved
24/11/2004	Boane District administration	To have the licence permit process explained at District level	Application => Distr.Adm. => Prov.MOPH => Distr.Adm.=> Licence Approved (Note the difference in Marraquene)
23/11/04	Matola Municipality administration technical department	Pilot to check if they really can deliver the information we requested in the pilot questionnaire on Building Permit Licences	The Process number is a better identifier than the Licence number.  To indirectly find out if the process is about Auto Construction they look in the documentation if a Responsible Engineer is appointed.  At the moment they do not have information about predicted costs. When the new "Regulamento" is applied (within 6 months) they

			<p>will have.</p> <p>Even with the new “Regulamento” they will not be able to divide material costs on type of materials</p>
24/11/04	Kongolote Bairro Administration	A pilot study to check if it is possible for them to deliver the information we requested in our draft pilot questionnaire addressed to “Chefe do Bairro”	<p>The Identification part functioned.</p> <p>The two administrators did not know the size (in har) of their Bairro.</p> <p>They knew perfectly well how many houses that have been constructed since the beginning of the year .</p> <p>They could not subdivide the houses according to our classification but proposed us to go down one level and ask some of the Chefes of Quarterãos.</p> <p>Information of the 95 Quarterãos (with around 50 houses each) about half of them were constructed on delimited land, made of cement blocks while the rest were made of local material.</p> <p>They gave us typical construction costs on the houses according to our classification.</p>

## 5.2 Notes from the researching visits

### Pilot studies at Matola Municipality Councils and at Congolote (“Barrio” in Matola)

To test the possibilities and our ideas of fetching data on auto-construction, both by using administrative data according to Building permit and by interviewing people (chief) in the at the administrative unit on local -

“Barrio” - level, we twice visited chief-persons in the Municipality Council and in Congolote, Matola.

### **Data from the administrative system of Building permits**

First we had a visit to discuss the routines to get a license to build - get a Building permit. There were three different papers used before a definite license/an approval. These three papers were given at three different occasions to the person (investor) who applied for permission to build a house.

Almost all the building projects applying for a permit are auto-construction, merely from private persons.

First the investor get a formal Building permit, later - when the construction works are finished and the official inspection is done - he get a license to use the house-s ( it is ready), and after that he get a license to live in the house/-s.

There are just a few data you can fetch from the document/paper of the Building permit, just

- the License Number and
- the identity-number of building process,
- identity data of the Investor,
- localization of the building and
- type of building, maybe.

From the fee for getting the Building permit you can get information of

- floor area.

From the Draw Plan of the Building you can get information on

- type of building,
- useful/gross floor area/area covered by roof,
- number of rooms and
- The Name of contact person (i.e. the architect).

### **Cost data**

In the research job we found out that the authorities usually do not require any costs data for the construction project for giving a license. Sometimes and somewhere (some local authorities) they demand a calculated cost. Indeed, there is a new law that statue gathering these data of cost for giving building permit. The Municipality Council and the District organizations are working out new routines to handle what are stated in the new law.

For the future, may be, the new “regulamento” for the routine of getting building permit will result in a situation of more frequent licensed auto-construction projects relative to unlicensed projects. Then the situation will be better, and more of the needed information will be available, both concerning the number of new auto-construction projects and concerning the value of the projects.

### **The concept of auto-construction**

We found out that the knowledge of what defines auto-construction project is often quite unclear. It differs between authorities on different administrative levels and areas. In the administrative jobs people usually do not use that classification of projects as auto-construction works or not.. Often all project *not* built by an enterprise as investor are and are regarded as auto-construction works. Then enterprises outside the construction sector (i.e. a cafe’ or a shop), who want to expend and build a new building for

own needs, in these cases are excluded from the statistics on construction activities.

### **Marraquene. District administration**

At the visit to The Districts administration at Maraquene (part of Matola) we got to know about the process of getting a Building Permit from this local administrative level. Before getting a building permit the investor must assure that he already have got a site to build on.

The paper-document of the approval to build (Building permit) exist in 3 ex : one for the investor, one for the approving organization (here District Adm.) and one ex. sends to the province organization for filing away (archiving).

Most often it is the a responsible engineer of the project who have to fill in the formula for applying for building permit.

It is not easy to strictly classify construction projects as auto-construction works. Most of the projects not concerning civil engineering, either rehabilitation are regarded as auto-construction projects. Usually a auto-construction project contains house/-s for one family and - if so - its employees in the household.

It is usually not possible to catch data of costs for the project. Sometimes you can find a preliminary estimation of the total cost in the basic data of the project given in at the applying paper for building permit and sometimes you can get it at the inspection when the construction work is finished.

### **Maraquene. First visit**

At the visit to The Districts administration at Maraquene (part of Matola) we got to know about the process of getting a Building Permit from this local administrative level. Before getting a building permit the investor must assure that he already have got a site to build on.

The paper-document of the approval to build (Building permit) exist in 3 ex : one for the investor, one for the approving organization (here District Adm.) and one ex. sends to the province organization for filing away (archiving).

### **Matola Municipality council**

We visited Matola Municipality Council to have the building permit process explained at municipality level.

The license to build must be prolonged once a year during the period of construction.

### **Maputo Municipality council**

All building housing projects within the city are licensed. The same definition on auto-construction works as INE is used.

Information on costs of project are not required. The investors of auto-construction projects are free to leave this information or not. Usually one can find some information on cost in the supplying material.

Information on floor area of the building usually is given.

The investor always has to apply for permission to use the new building when the construction works are finished.

The municipality council was rather positive to have some information about construction works in progress back in return from INE. It can be as a file of projects printed on a paper list.

### **The second visit to Congolote**

We got some information from Barrio administration at our second visit in Congolote. Congolote have a rather well organized structure. Half of the area of the bairro is reserved for housing and strictly divided into “sites” of housing. 95% of this area is divided in quarters and each quarter have 55 houses. The other part of the area is not organized in sites. People who want to build a poor house (like in canisos) of local material are allowed to build and live there.

The local administration knew very well the number of new built houses during the latest twelve month, the total number of all houses in the barrio and even how many families were living there. We also got some data on the costs of building a house in some different types in this area. They even have some value-data, which can be used to estimate the value of new auto-constructions in these kind of areas.

END

**Appendix 1 Terms of Reference****TERMOS DE REFÊNCIA**  
Suporte pelo Programa Escandinavo**Para uma Missão de curta duração de 2 semanas de 15 a 26 de  
Novembro  
na  
Estatística de Auto Construção**

O Relatório de Missão de Inga-Maj Rasmusson de 10 a 28 de Novembro 2003 faz um levantamento do estado das estatísticas de construção no país e avança com sugestão de como melhorar em 3 direcções, estatísticas baseadas em:

- a) Empresas construtoras,
- b) Auto-construção registada
- c) E auto-construção não registada.

Provavelmente a única omissão que o relatório contém é não se referir a existência e administrações Distritais, que tem registos sobre construções, e licenças de utilização, que são passadas no fim da obra quando está se encontra em condições de ser utilizada . Na sequência do estudo importa que se realize mais uma missão para dar continuidade ao trabalho de investigação iniciado e desenvolver as metodologias adequadas de modo a se ter uma cobertura total na área de construção

**Principais razões da Missão**

O INE já vem recolhendo informação das empresas construtoras neste momento necessita de assistência para a implementação de metodologias adequadas para a recolha de dados sobre:

- Auto Construção Registada
- Auto Construção não registada

A missão deverá ocorrer, na terceira e quarta semana de Novembro. A missão deverá garantir que as contas nacionais e os utilizadores de informação no geral tenham uma informação mais exacta de qual é o nível de construção existente no país.

Ainda no decorrer desta missão deverá ser desenhadas e orçamentadas as actividades estatísticas baseadas na auto-construção registada e não registada e sua inserção nas rotinas já existentes

**Beneficiários da Missão**

Os principais beneficiários da Missão serão os técnicos do INE afectos à DESE, Ministério das Obras Publicas e Municípios

## **Objectivos da Missão**

- Dar prosseguimento às recomendações das missões precedentes;
- Definir uma metodologia de recolha de dados de auto construção não registada;
- Definir metodologia de recolha de dados administrativos para construção registada;
- Definir as variáveis a recolher
- Desenhar os instrumentos de recolha
- Conciliar as novas metodologias com as de rotinas já existentes na DESE
- Capacitar o pessoal da DESE, do MOPH e dos Municípios na produção de estatísticas de boa qualidade usando as novas metodologias e rotinas criadas.

## **Resultados esperados**

- Definidas as metodologias de recolha de dados da auto construção registada e da auto construção não registada;
- Definidas as variáveis a recolher
- Desenhado o instrumento de recolha
- Conciliada as novas metodologias com as de rotina já existentes na DESE ;
- Capacitado o pessoal da DESE, do MOPH e dos Municípios na recolha e processamento estatísticas económicas baseadas na nova metodologia;

## **Agenda da Missão**

Por definir

## **Acções a serem realizadas pelo INE para facilitar a missão**

- Elaborar os termos de referência para a Missão;
- Preparar e providenciar a documentação necessária para os consultores, fazendo um levantamento Informações existentes nas administrações dos distritos em cada um dos municípios;
- Providenciar boas condições de trabalho para os consultores.

## **Contraparte**

Consultora:  
Inga-Maj Rasmusson

Contraparte:

Valeriano da Conceição Levene- VPINE/E, Natércia Macuácuca –  
CDEBA

### **Duração da Missão**

A Missão conjunta irá decorrer de 15 a 26 de Novembro de 2004.

### **Relatórios**

No fim da Missão a consultora irá preparar um relatório preliminar a ser discutido com o INE antes de o consultor sair do País. Eles irão submeter o relatório final, para comentários finais dentro de três semanas após o término da missão.

Estes termos de referência foram preparados por:

*Azarias Marcos Nhanzimo, Director da DESE*

Aprovados por

*Valeriano da Conceição Levene, Vice Presidente do INE para o Pelouro Económico*



INE. Adress and telefonnumber and e-post-adress

**Questionairs of Facts about new auto-construction projects**

Hallo to the Respondent (Municipality Council)

Municipality/Distrikt .....  
 Provins.....

Please, send the questionnaire back in two weeks after the reference period.  Mark if no construction works during this

**List of licensed auto-construction works. Data on new auto-construction projects**

Period Actual Year, Month/quarter. From month x1 to month x2

**Projekt 1 Identity**

**Type of investor**

Name of the Investor  Private person  
 Address ..... telef, fax, e-mail.....  Firm (enterprise)  
 Contact person, name, telef, fax, e-mail.....  Cooperation, organisation  
 Is there a Contractor or Supervisor engaged?..... name, telef, fax, e-mail  Other

**Building permit number** ..... **Date of approval** .....(year, month)

**Lokalisation of the building area, Adress** .....

**Type of building**

This Project concerns  Residential Building/-s  Non-Residential Building/-s  Both Residential and non-residential Buildings  
 New Construction  Apartments Block  Office, shop, hotel, restaurante  
 Others. Specify.....  Small House/-s  Industry, store  
 Villas  Education, hospital, health+social care, culture and sports  
 Mark the main part beside.  
**New floor area in the building/-s** .....m2. **Number of dwellings** .....  Water pipe connected  
 Electricity connected

**Dates of start and finish of the construction works and production costs (or value)**

	Year, Month	Calculated cost*, whole project	Mill Mt	Materiakostnad
Start of Construction works				*the ground works shall be included in the costs
The project still in progress		Used cost (share is enough)		
Costruction completed		Final costs* (if finished)		
		Of that: material cost		

**Projekt 2 Identity**

**Type of investor**

Name of the Investor  Private person  
 Address ..... telef, fax, e-mail.....  Firm (enterprise)  
 Contact person, name, telef, fax, e-mail.....  Cooperation, organisation  
 Is there a Contractor or Supervisor engaged?..... name, telef, fax, e-mail.....  Other

**Building permit number** ..... **Date of approval** .....(year, month)

**Lokalisation of the building area, Adress** .....

**Type of building**

This Project concerns  Residential Buildings  Non-Residential Buildings  Both Residential and non-residential Buildings  
 New Construction  Apartments Block  Office, shop, hotel, restaurante  
 Others. Specify.....  Small House/-s  Industry, store  
 Villas  Education, hospital, health+social care, culture and ports  
 Mark the main part beside.  
**New floor area in the building/-s** .....m2. **Number of dwellings** .....  Water pipe connected  
 Electricity connected

**Dates of start and finish of the construction works and production costs (or value)**

	Year, Month	Calculated cost* for the project	Mill Mt	Materiakostnad
Start of Construction works				*the ground works shall be included in the costs
The project still in progress		Used cost (share is enough)		
Costruction completed		Final costs* (if finished)		
		Of that : material costs		

**Projekt 3 Identity**

**Type of investor**

Name of the Investor  Private person  
 Address ..... telef, fax, e-mail.....  Firm (enterprise)  
 Contact person, name, telef, fax, e-mail.....  Cooperation, organisation  
 Is there a Contractor or Supervisor engaged?..... name, telef, fax, e-mail.....  Other

**Building permit number** ..... **Date of approval**.....(year, month)

**Lokalisation of the building area, Adress**.....

**Type of building**

**This Project concerns**  Residential Buildings  Non-Residential Buildings  Both Residential and non-residential Buildings  
 New Construction  Apartments Block  Office, shop, hotel, restaurante  
 Others. Specify.....  Small House/-s  Industry, store  
 Villas  Education, hospital, health+social care, culture and sports

**New floor area in the building/-s**.....m2. **Number of dwellings**.....  Water pipe connected  
 Electricity connected

**Dates of start and finish of the construction works and production costs (or value)**

	Year, Month	Mill Mt	
Start of Construction works	_____	_____	*the ground works shall be included in the costs
The project still in progress	_____	_____	
Costruction completed	_____	_____	
		_____	Of that : material costs

**Projekt 4 Identity**

**Type of investor**

Name of the Investor  Private person  
 Address ..... telef, fax, e-mail.....  Firm (enterprise)  
 Contact person, name, telef, fax, e-mail.....  Cooperation, organisation  
 Is there a Contractor or Supervisor engaged?..... name, telef, fax, e-mail.....  Other

**Building permit number** ..... **Date of approval**.....(year, month)

**Lokalisation of the building area, Adress**.....

**Type of building**

**This Project concerns**  Residential Buildings  Non-Residential Buildings  Both Residential and non-residential Buildings  
 New Construction  Apartments Block  Office, shop, hotel, restaurante  
 Others. Specify.....  Small House/-s  Industry, store  
 Villas  Education, hospital, health+social care, culture and ports

**New floor area in the building/-s**.....m2. **Number of dwellings**.....  Water pipe connected  
 Electricity connected

**Dates of start and finish of the construction works and production costs (or value)**

	Year, Month	Mill Mt	
Start of Construction works	_____	_____	*the ground works shall be included in the costs
The project still in progress	_____	_____	
Costruction completed	_____	_____	
		_____	Of that : material costs

**INE. Adress and telefonnumber and e-post-adress**

Level 1

**Questionnair on new auto-construction projects in a specific area**Year, monnth  **Lokalisation of the studied area**

Provins.....	Respondent (Chef).....
Municipality/Distrikt .....	Responsible for the area (Barrio, Quarter, Sampled .....
Posto Administrativo.....	.....
Aleida/Barrio.....	.....
Quarter/Spot.....	Period (Twelve latest Months) .....

Type of area	<input type="checkbox"/> Luxuy	<input type="checkbox"/> Suburbo organizado	<input type="checkbox"/> Rural
	<input type="checkbox"/> Caniso	<input type="checkbox"/> Suburbo Mixto	

Area of this Quarter/Spot.....M2 (estimated)

 Mark if no new construction works during this period.**New construction during last twelve month****Number of new houses per types in this specific area**

New houses	Type of building					
	Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento	Other common type of house
Total in area (above)						

Electricity to the main part of the houses  No  Yes Part .....Water-pipe to the main part of th houses  No  Yes Part .....**Try to estimate the total numbers of all houses per type of house in this specific area.**

All houses	Type of building					
	Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento	Other common type of house
Total inn the area						

**Try to estimate the production cost per type of building in this specific area. Mill MT**

Type of building

Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento

Other information to give to INE.....

Name.....

## INE. Adress and telefonnumber and e-post-adress

**Questionnaire on new auto-construction projects in a specific area**

Level 2

Year, month  **Lokalisation of the studied area**

Provins.....	Respondent (Chef).....
Municipality/Distrikt .....	Responsible for the area (Barrio, Quarter, spot)
Posto Administrativo.....	.....
Aleida/Barrio.....	Period (Twelve latest Months).....
Quarter/Spot.....	Administrativ unit level (look the categories beside)
	.....
	How many areas similar to.....(Level 1)

Type of area	<input type="checkbox"/> Luxuy	<input type="checkbox"/> Suburbo organizado	<input type="checkbox"/> Rural
	<input type="checkbox"/> Caniso	<input type="checkbox"/> Suburbo Mixto	

 Mark if no new construction works during this period.

Try to estimate the Population of this lokal administrativ unit..... people/families

**New construction during last twelve month****Number of new built houses per types in this administrative area/unit****New houses.Total** | Type of building

	Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento	Other common type of house
In this area (above)						

Electricity to the main part of the houses  No  Yes Part .....Water-pipe to the main part of th houses  No  Yes Part .....

Try to estimate the total numbers of all houses per type of house in this administrative area/unit.

**Total all houses** | Type of building

	Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento	Other common type of house
Total in the area						

Try to estimate the production cost per type of new building in this specific area. Mill MT

	Type of building					
	Villas (big house)	Moradia (mainly of cement)	Palhota (mainly of wood)	Precário (Diff. lokal material)	House with Flats/Apartamento	
Total in the area						

Other information to give to INE.....

Name.....

If there is information on the new built houses in different barrios in this zone, fill if in below

sid 2

Type of house	Quarter1			Quarter 2		
	Number of New construcions	Total numbers of houses	Famileis/Population	Number of New construcions	Total numbers of houses	Famileis/Population
Villas (big house)						
Moradia (mainly of cement)						
Palhota (mainly of wood)						
Precário (Diff. lokal material)						
House with Flats/Apartamento						
<b>Sum</b>						