To: Vice Minister Solomaco (CNP)
Vice Minister Igreja-Campos (Ch. INE, SDA)
Minister Magid Osman (Finance)
PDP Working Party Chairman Carilloho
National Director Juma
National Director Statistics

Copied: UNICEF / World Bank

From: R.H. Green

CENSUS/SOCIAL SURVEY

1. Because this sample Census/Social Survey is the major exercise proposed for Statistics over 1990/91 (with analysis continuing into 1992) it is important to get it right. The basic data of most importance to users (Ministries - Party - Researchers) must be collected and in a form suitable for the intended uses.

2. Certain issues require further urgent attention:

A. Is the survey intended to produce population estimates? At what level? For election use?

B. How is it proposed to draw samples from unknown universes? And more particularly how are district results to be aggregated, provincially and nationally?
6. Why are there no questions on basic tools/agricultural inputs/household equipment? On access to health post? On agricultural production? On income? Why is the budget (expenditure) question so aggregated in categories and in a form suitable only for wage earners with virtually no other and especially no significant non-cash income? Are the durable listed as good choice? Radios, sewing machines, bicycles probably — but why canovas?

Population
3. We know we do not know the population of Mozambique. UNFPA (from New York) thinks it does because it has projected from 1980 as if there had been no war!

4. Nationally we suppose that — including refugees displaced across borders — there are 16.5 to 17.5 million Mozambicans:
   a. Urban/Small Towns
   Peri Urban
   b. Deslocados In Campos
   c. Known Afectados
   d. Known Sector Familiar
   e. Refugees
   F. Other
   Total
   4.0
   2.0
   3.0
   3.5 - 4.0
   1.0 - 1.5
   3.0 - 3.0
   16.5 - 17.5
of the "Other" the estimates we have on war - drought/war famine-
high infant - child - adult mortality suggest 10 million are dead - the
direct and indirect martyrs of Pretoria's Bandidos. Of the rest some are still
terrorised / enslaved by bandidos, some are wandering in the imperfectly
secure districts, some may be "errors of estimation" by war may have
reduced the birth rate.

5. Provincial and District data are even
more approximate and - to the extent
known - not consolidated into our
national population tables. These proj-
exted from 1980 on a 2.6% growth
assumption. We know:
1. cities grew faster
2. deslocados / affectedas moved
3. many sector familial households
   moved to less insecure areas
   (e.g. to Beira corridor)
4. people were displaced across borders
   as refugees in Malawi, Zimbabwe,
   Zambia, Tanzania, Swaziland, RSA
5. death rates rose and perhaps birth
   rates fell so population did not
   rise 2.6% a year (unless that
   estimate was too low and would
   have been 2.8 to 3% without war).
6. IF we want the least bad available population estimates we must collect them from City - Provincial - District Administration:
   i. Urban
   ii. Small Town
   iii. Peri-Urban
   iv. Deslo casos / Returnados
   v. Afectados
   vi. Sector Familial
   vii. Rough Guess as to Oth People in District with Whose Administration not in Contact.

Only i - ii - iii (perhaps) - iv - v can be roughly (+ or - 5%) accurate. vi will have up to + or - 10% error of overestimation and vii still more lack of accuracy. But these rough estimates will be better than the precisely wrong 1990 projections of 1980 if there had been no war UNFPA and we are using now.

7. IF Para 6 is done it is possible the Sample Survey could help improve estimates. How much is open to doubt. Both 1989 - 85 District Survey and common sense suggest category vii people are almost impossible to contact and
8. Whether Poll 6 will produce good enough data for 1991 electoral purposes is for the Party to decide. It will not produce normally accurate ones outside cities, most towns and a few districts (eg Mueda). Further with up to 25-30,000 returnados a month August 1990 estimates will - for some districts - be seriously lower than 1991 reality while if returnados clustered around eg Inhambane, Xai Xai, Quelimane feel able to move to home districts the balance between districts in those provinces could alter sharply. But the Poll 6 approach will produce much better/more usable data than any starting from the totally unreal 1980 projections from 1980 Census.

9. Sample surveys collect data from samples. These are selected from the universe (total population) by methods designed to ensure the sample is random, that is has the same characteristics as total population. This approach assumes one has a good idea of size
of whole universe (population), but as Para 3 thru 8 have explained in Mozambique we do not know the approximate size of National Provincial or - especially - District universes (populations). How is a random sample to be selected?

10. In practice reasonable random samples can be selected from universes of unknown sizes. 1989's 75 District Survey was an example. These can reveal significant data about the population. Thus we, however, two problems:
   a. one cannot readily or accurately estimate the population backwards from the sample (i.e. the Sample Survey cannot become a Sample Census);
   b. one cannot aggregate individual district results on a population weighted basis because one does not know relative populations.

11. Whether the Para 6 approach would give adequate universe estimates is unclear. It would provide less bad ones than we have now!

12. The limits noted at Para 10 do not destroy the value of survey
For applied policy (e.g. SDA, Priority District Programme) purposes, but they do mean it cannot be a contribution to preparing for an electoral process.

Questions

13. A new question 13A is needed on

**Tools** - agricultural (e.g. hoes, ploughs, cutrus, construction (e.g. axes, adzes, pickaxes, etc)

**Household Equipment**
- e.g. buckets, tins, pots/pans, beds or mats, tables, chairs, dresses, shirts, clothes

**Basic Goods Supply**
- e.g. Grain Rust Crops
  Cooking Oil Salt
  Sugar Tea or Coffee

14. In Question 15, irrelevancies e.g. "Magazine Fotografia" should be deleted. But additions should be made:

**Rural**
- Cattle Sheep Other Livestock
  - Goats Chicken
  - Planted Trees (e.g. cashew, citrus
  - Carts

**Urban**
- durable goods (other than tools at Question 13A)
  artisans use—
15. Some agricultural/artisanal data are needed. An agricultural sample survey expert's advice is needed on how to frame them!

**Agriculture**

<table>
<thead>
<tr>
<th>Area Available To Household</th>
<th>Area Cultivated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Grains (which)</em></td>
</tr>
<tr>
<td></td>
<td><em>Root Crops (which)</em></td>
</tr>
<tr>
<td></td>
<td><em>Tree Crops / Plantains (which)</em></td>
</tr>
<tr>
<td></td>
<td><em>Cloth</em></td>
</tr>
<tr>
<td></td>
<td><em>Other What</em></td>
</tr>
</tbody>
</table>

**Area Grazed**

- What kind of livestock
- How many

**Amounts Produced**

- Each Crop/Animal (last year / last month)

**Amounts Consumed By Household**

**Amounts Sold**

- To Whom
- How Much Received

Quantities and Areas will have to be in units the household — and the surveyor! — can understand. Local expertise needed! Results will not be very accurate but better than we have now!

A parallel set of questions is needed for artisan/handicraft production.
16. Question 14 as posed is not useful.
- it does not break down expenditure enough
- it either relates only to cash expenditure or will create chaos on coverage and valuation of goods (e.g. Food, shelter) produced and consumed by household.
- An expert with experience in such surveys in Africa including household self-provisioning is needed to advise. Such people are on staffs of Zimbabwe and Botswana Offices of Statistics and could be seconded for - say 3 to 6 weeks - to advise either by bilateral request or via Commonwealth Fund for Technical Cooperation.

17. Question 14 does not cover income. We desperately need better data on levels and sources of low income household incomes. The main categories are:
A. Wage and Salary (Salario) Income
B. Pensao
C. Remittances (especially but not only from RSA)
D. Informal/Familial (Urban) (Rural)
   - Casual (Non Salario) Wages (type - domestic servant, construction, porter, for small
For this set of questions, the expert is asked:

1. Housing, possibly net income, or cash expenses.
2. Other income, possibly net income, or cash.
3. Fuel.

E. Livestock (including
   - J. Stores, Livestock
   - K. E. Supplies (produced
     in the household), livestock
   - I. Household self-provisioning (produced
     in the household), livestock
   - F. Crop.

- Rest (how are household uses rent
-...s."

Sales of Artisanal/Handcraft Products
Small Scale Construction and Industry
Street vendors, pawn shops, small scale employees
...
required at Para 16 (or one specialised on income side of Household Income and Expenditure surveys) will again be needed. The data may not be very accurate but will advance our knowledge.

18. Certain General Data could be added fairly easily, e.g.

**Health**

- How far is nearest posto/centre?
- Is it functioning?
- How many times did your household use it last year (monthly)?
  - Moto/Child Clinic
  - Immunisation
  - Consultation
  - OTH

- How far is nearest primary school?
- Is it functioning?
- How many children of your household (ages 6-12s) attend it? How many do not?

- How far is nearest well or Fontaine?
- Does it work?
- Do you / your household use it?
- IF not how do your household get water?
- How many hours a day does it take to get water? Who gets it?
- Does it cost money? How much?
What fuel does your household use? How do you get it? How much a month does it cost (if bought)? For what quantity? If collected, how long does it take each week to collect fuel? Who does the collection (eg wife, girl, man, boy)?

How far is nearest store? Do they buy crops? Do traders ever come to your village? Where do you sell crops?

What 10 products would you most wish to be able to get in shop or from trader?

eg soap    grain
      cooking oil    sugar
      tomato paste    fish
      tobacco/cigarettes    cloth
      hoe/jembe    needles
      other tools    dry cell batteries

These are pretty simple questions which respondent will be able to answer quickly (unless he is he and she - wife - does wooding, watering and isn't there to tell him!)
19. The Survey could be run in August (with known universe for sample selection) in August. But it would not be worth deploying major Mozambique effort and UNDP support for that even if added questions can be built into it in time. We need rural data even more than urban and we cannot realistically do more than one major statistical survey exercise every other year.

20. The Survey probably cannot be done in all districts. What might be possible is to:

A. Run Population Rough Estimate (Para 6)

B. Select

1. All Provincial/National Capitals
2. All 40 Priority Districts
3. 45 of Other 90 Districts (or 1/2 of All Other Rural Districts if 10 Capitals include some districts)

C. Revise questions in close consultation with:

1. All potential user Ministries
2. University
3. Interministerial Commission on SDA
securing services of experienced
African agricultural and household
budget study sample survey question-
ion and analysis experts (eg from
Commonwealth Fund for Technical
Corporation, IFAD, UNICEF, perhaps
Statistical Office of Botswana
and/or Zimbabwe.)

That exercise is likely to take
up to 6 months (2 to 3 for
Population Reestimate, 2 to agree
on questions, 1 to 2 to redesign
questionnaire. Then we need:

a. to test questionnaire on say
1,000 urban and 1,000 rural
households and revise as
needed
b. recruit/train surveyors
c. mobilise Party and public
support

which is at least 3 more months.
Even assuming agreement on
this schedule very quickly
the 9 months begin about 2 April
and end 1 January 1991. I believe
weather (rains) and harvest (people
have no time to wait on peregrinators
outsiders asking questions
until the crops are in) would
make May 1991 earliest feasible
month after January?
I realise a proposal to delay is unwelcome. But it is important
to do the job right and to get a
return on our investment of staff,
Office Personnel - Capacity - Transport -
Finance and of external support.
A May date (just after harvests)
would also improve quality of agri-
cultural question responses.

[Signature]

R. H. Green
Consultant
17-11-90
Maputo

Distribution is to:

a. Senior Mozambicans to whom I work

b. agencies which asked me for advice

Unfortunately I received Draft
Questionnaire 16.30 on 16-11-90
so have not had time to dis-
cuss this memo with Statistics
nor UNDP.