

UN ECONOMIC COMMISSION  
FOR WESTERN ASIA

10 APR 1985

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تقرير  
عن الزيارة الى ادارة الاحصاء  
المنامة - البحرين

خلال الفترة  
٢٥ ابريل - ١٥ مايو ١٩٨٣

اعداد  
دكتور/ عبدالله السعيد اليه النجار  
المستشار الاقليمي لمعالجة البيانات  
مشروع مسح الاسر

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ان الاراء الواردة في هذا التقرير انما تعبر عن الرأي الشخصي للمستشار  
الاقليمي ولا تلزم بالضرورة اللجنة الاقتصادية لغربي آسيا.



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## ٠١ تقديم :

عنه هي الزيارة الثانية التي يقوم بها المستشار لإدارة الإحصاء بدولة البحرين لتقديم المعونة الفنية اللازمة لتنفيذ " بحث نفقات ودخل الأسره " التي تقوم به دائرة الإحصاء وذلك بناء على طلب حكومة البحرين واتفان التعاون مع اللجنة الاقتصادية لغربي آسيا.

ان هذا التقرير هو الثاني المقدم من المستشار عن هذا البحث .  
والتقرير الاول قدم عن الزيارة الأولى التي تمت خلال الفترة ٢٠ فبراير - ٢ مارس ١٩٨٢ .

ولمتابعة هذا البحث وتفهمه بدرجة وافيه فانه يفضل قراءة التقرير الاول مع هذا التقرير .

## ٠٢ الموضوعات التي شملتها الزيارة :

- تضمن برنامج الزيارة العناصر الاساسيه التاليه :
- أه مراجعة وتقييم ما تم بالبحث .
- به المياعه الجديده للجداول الإحصائيه المراد استخراجها .
- جـ مراجعة وتقييم ما تم تنفيذه بالحاسب الالى .
- د استكمال مناقشه النظام التحليلي وتصميمه .

## ٠٣ مراجعة وتقييم ماتم بالبحث :

تمت عدة اجتماعات مع المشاركين بالبحث بكل من دائرة الإحصاء ودائرة الحاسب الالكتروني ، كما تمت زيارة الحاسب وقسم ادخال البيانات ، واتضح التالي :

أه أن العمل بالمشروع سواء الميداني أو المكتبي أو الإحصائي أو الحاسب الالكتروني يسير بشكل منتظم وجيد .

- به أنه تم الاخذ بالتوصيات والاقتراحات الواردة بالتقرير الاول ومنها :
- ادخال حقول كنترول على الاستثمارات الخاصه بالبحث .
- اسلوب ادخال البيانات .
- المفاهيم الخاصه بتحليل النظام وتصميمه .
- الاراء الخاصه باعاده صياغه الجداول الإحصائيه وبعض المتغيرات مثل حساب تاريخ الميلاد ، وعدد أفراد الاسره ، وعدد الاسر ... الخ .

جـ ادخال البيانات يتم - حسب التصميم المذكور بالتقرير الاول - دون صعوبات وبمعدل جيد وأن برامج اختبارات التحقق والتناسق التي اجريت على المجموعات الاولى من البيانات المسجله أظهرت نسب اخطاء تتراوح بين ٨ - ٥ % ، من البيانات يساهم قسم ادخال البيانات فيها بنسبة أقل من النصف بينما ترجع أسباب النصف الثاني من الاخطاء الى مصادر أخرى مثل العمل الميداني والعمل المكتبي .

وجدير بالاشارة أن هذه النسبه من الاخطاء تعتبر أقل مما كان متوقعا وخاصة في الفترات الاولى من البحث وهذا يعود الى الجهود الجيده المبذوله من كل المشاركين بالبحث .

د. التعديلات المدخلة على الاستمارات سواء بالفناء بعض البيانات أو إضافة بعض الحقول تتم بدقة عالية وسهولة ولم تؤثر على أداء العمل المكتبي أو تسجيل البيانات بالحاسب .

#### ٤- الجداول الإحصائية :

مما لاشك فيه أن تصميم الجداول الإحصائية التي يلزم إصدارها عن أي دراسة إحصائية كبيره تستغرق وقتاً وجهداً كبيرين ، كما تحتاج إلى خبره عمليه ودرايه بنوعيه البحث محل الدراسة .

ومن أجل متابعة عمليه تصميم الجداول الإحصائية لدراسة بحث نفقات ودخل الأسره فقد يكون مفيداً أن نذكر أن الصياغة الأولى للجداول بلغت حوالي ٧٠ جدولاً مقسمه إلى أربعه مجموعات ، سبق عرضها بالتقرير الأول وأبداء بعض الملاحظات عليها مع توصيه بإعادة النظر فيها .

والصياغة الثانيه للجداول ( انظر مرفق ١ ) التي قدمت للمناقشه أثناء هذه الزياره يمكن توصيفها على النحو التالي :

أه قسمت الجداول إلى (١٢) مجموعته يصل مجموعها الاساسى إلى (١٢٩) جدولاً ، تفاصيلها كما يلي :

رقم المجموعه : ١ ٢ ٣ ٤ ٥ ٦ ٧ ٨ ٩ ١٠ ١١ ١٢

عدد الجداول : ١٦ ٩ ١٨ ١٠ ٩ ٩ ٩ ١٠ ١٠ ١٠ ١٠ ٩

على أن يصدر كل منها بالنسبه للسكان :

- البحرانيون
- غير البحرانيين
- جميع السكان

به اعتبرت هذه الجداول ذات أفضليه أولى في استخراج .

جه توجد أفضليه ثانيه في استخراج العديد من الجداول للاستخدام المكتبي بدائرة الإحصاء وليس للنشر . وهذه الجداول هى بعض الجداول المذكوره تحت ( أ ) ولكن بدرجة أكثر تفصيلاً مثل :

- جدول (١) بالمجموعه الأولى يصدر بالنسبه لغير البحرانيين تفصيلياً بالنسبه لكل جنسيه ( بند الجنسيه يصل إلى أكثر من ١٠٠ جنسيه ) .

- نفس الجدول السابق يصدر أيضاً بالتفصيل الجغرافى لكل منطقه .

- الجداول التي تتضمن المهنة تصدر على مستوى رقمين للمهنة .

- إصدار الجداول الخاصه بعمر السكان مع تفصيل هذا العمر لعدد كبير من مجموعات السن .

- إصدار بعض الجداول على مستوى بيانات كل دوره بيانات .

- ..... الخ

استغرقت دراسته ومناقشه هذه الجداول معظم رقت الزياره وتضمنت  
الدراسه البنود التاليه :

- التركيب الاحصائي للجداول •
- علاقة الجداول الاحصائيه بحقول البيانات •
- امكانيه استخراج الجداول بالحاسب الالكتروني •
- تأثير الافليات ( ١ ، ٢ ) المعطاه للجداول على الجهد المبذول في  
النظام واستخراج الجداول •
- حجم كل جدول وعلاقه ذلك باصداره ومناسبه ذلك عند النشر
- اهمية بيانات كل دوره ( اربعه دورات بالدراسه ) والجداول التي  
تصدر عن كل منها سواء للنشر الخارجي أو العمل بها داخليا بدائرة  
الاحصاء
- غياب بيانات بعض الاسر المختاره بالعينه خلال بعض الدورات واختلاف  
عدد الاسر بكل دوره وأثر ذلك في استخراج الجداول على المستوى  
السكنوي وطرق الحساب التي يلزم اتباعها لمعالجة هذا الموقف •
- كيفيه قياس وحساب بعض المتغيرات مثل عمر الفرد ، وعدد أفراد  
الاسره ، الخ •
- العناوين العربيه والانجليزيه لكل جدول احصائي
- بعض البيانات بالدراسه لم تشملها الجداول الاحصائيه المطلوبه •
- ... الخ •

ونتيجه لهذه الدراسه والمناقشه فقد تم الوصول الى مايلي :

١. يحسب العمر على اساس أن المرجح هو ابريل ١٩٨٢

به بيان عدد الاسر متغير مع كل دوره واتفق عند اصدار الجداول أن  
يؤخذ على النحو التالي :

الدوره الاولى : عدد الافراد يؤخذ من الاستمارات  
الديموغرافيه

الدوره الثانيه : عدد الافراد يؤخذ من الاستماره  
الاسبويه

الدوره الثالثه : عدد الافراد يؤخذ من الاستماره  
الاسبويه

الدوره الرابعه : عدد الافراد يؤخذ من الاستماره  
الديموغرافيه المعدله

جه بيان الجنسيه رؤى تقسيمه الى ثمان مجموعات بديلا عن التفصيل  
بذكر كل جنسيه •

د. الجداول ذات الاولويه الثانيه هي الجداول التفصيليه والتي تعتبر مرحله تلخيصيه للبيانات قبل صدور الجداول الاجماليه والتي لها الاولويه الاولى ، وهذا يبين أن جداول الافضليه الثانيه يمكن اصدارها كنتائج مرحليه قبل اصدار الجداول ذات الافضليه الاولى ومن ثم فان التمسك بالاولويات - في هذه الحاله - له تأثير مضاعف على الجهد المبذول بالحاسب . ولذلك فقد روي عدم الاخذ بالاولويات واعداد نظام شامل يغطي الاحصائيات المطلوب اصدارها .

عده نشر لاختلاف عدد الاسر وعدد الافراد بكل اسره خلال كل دوره بيانيه من دورات البحث الاربعه فقد روي ادخال بعض التعديلات على الجداول لتتضمن بيان عن عدد الاسر وعدد الافراد التي صدر عنها هذا الجدول كما تم الغاء بعض المتغيرات بالجداول .

و. نظرا للتعديلات المدخله على الجداول وعدم الاستفاده من بعض المعلومات الوارده بالدراسه ، فقد روي اعاده صياغه الجداول الاحصائيه وتم صدورها للمره الثالثه ( انظر مرفق ٢ ) ويمكن توصيفها على النحو التالي :

- قسمت الجداول الى (١٦) مجموعه يصل مجموعها الاساسي الى (١٦١) جدولا، تفاصيلها كما يلي :

رقم المجموعه	عدد الجداول
١	١٥
٢	١٥
٣	١٩
٤	١٠
٥	٩
٦	٩
٧	٨
٨	١٠
٩	١٠
١٠	١٠
١١	١١
١٢	١٥
١٣	٩
١٤	١١
١٥	٩
١٦	١

- تصدر هذه الجداول بالنسبه للسكان :

- البحرانيين .
- غير البحرانيين .
- جميع السكان .

- تصدر جداول تفصيليه عن هذه الجداول للاستخدام الداخلي بدائرة الاحصاء حسب وجود :

- متغير المهنة يصدر تفصيليا على مستوي رقمين .
- متغير العمر يصدر لعدد اكبر من المجموعات العمريه .
- متغير المنطقه يصدر لتفصيل جغرافي اوسع .
- متغير الجنيه حسب مجموعات ثمانيه .



- تصدر الجداول على مستوى كل دورة ويحتفظ بها بالحاسب دون إبلاغه إلا بأمر كتابي ، كما تصدر الجداول على المستوى السنوي مع الاحتفاظ بها بالحاسب ولإبلاغها للنشر .

- تم مناقشه ووضع الأسلوب الحسابي لمعالجه أثر التغير في عدد الأسر وعدد الأفراد خلال دوريه جمع البيانات وذلك عند إصدار الجداول الإحصائية على مستوى الدوره أو المستوى السنوي .

سه جدير بالإشارة أن الجداول التي تتضمن التفسير تركيب الأسره : والمحدد فيما يلي :

٠١ زوجان فقط ٠٢ زوجان بدون اولاد مع آخرين

٠٣ زوجان واولادهما فقط ٠٤ زوجان واولادهما مع آخرين

٠٥ أحد الأزواج مع الاولاد ٠٦ أحد الزوجين مع الاولاد وآخرين

٠٧ مجموع افراد خلاف ما سبق ٠٨ شخص بمفرده

لم يكن بالإمكان صدورها نتيجة قصور في تعريف وجمع بيانات وترميز بيان " العلاقة برب الأسره " والرمز على النحو التالي :

٠١ رب الأسره ٠٢ زوجه رب الأسره

٠٣ ابناء وبنات غير متزوجين ٠٤ ابناء وبنات متزوجين

٠٥ زوجات / أزواج الأبناء أو البنات ٠٦ حفيد أو حفيده

٠٧ والدي رب الأسره أو زوجته ٠٨ آخرون

٠٩ خدم

( انظر مرفق (٣) الذي يوضح التعرف على تركيب الأسره صحيحا في حاله كونه ربها هو الزوج أو الزوجه - قدم للمناقشه وعلى أثره الفيت الجداول التي تتضمن تركيب الأسره )

م- مراجعة وتقييم ما تم تنفيذه بالحاسب الإلكتروني :

#### أ. ادخال البيانات:

تم تدريب العاملات على ادخال البيانات ، وتم ادخال جزء كبير من البيانات الديموغرافية ( المسكن والأفراد ) ويجري ادخال بيانات الاستماره الأسريه ، والعمل يسير بشكل جيد كما سبق ذكره تحت بند ( ٣ - ج ) .

كما تم ادخال بيانات فرضيه عن الدخل من أجل ايجاد ملف بيانات لاختبار البرامج الخاصه به .

## بـ النظام التحليلي والبرامج ( المرحلة الاولى ) :

تم الاخذ بالتوصيات المذكورة بالتقرير الاول وتم التركيز على استكمال المرحلة الاولى من النظام وهي : الحصول على الملفات الاساسيه صحيحه وشامله .

وأعد لذلك ثلاثة برامج أساسيه لاختبار كل من التحقق ، التناسق ، الشمول . هذه البرامج لم تكن قد اختبرت بشكل كاف عند بدء الزياره ، كما أن التقارير الصادره عنها ذات طبيعه مركبه تؤثر على سرعة ودقة عملية التصويب للأخطاء .

وخلال الزياره فقد تم التالي :

- استكمال الاختبارات الخاصه ببرامج التحقق والتناسق
- اعاده صياغه التقارير الصادره عن كل منها لتكون سهله القراءه وسهله التصويب
- استدعى ذلك دراسه قواعد التناسق وصياغتها بشكل بسيط لتصدر تقارير التناسق بناء عليها
- تم ذلك بالنسبه لبيانات المساكن / السكان / الاستثمار الاسبوعي / الاستثمار الربع سنويه / تحديث الاستثمار الديموغرافيه / الدخل .

## ٦- استكمال دراسه النظام التحليلي وتصميمه :

ينقسم النظام التحليلي الى مراحل ثلاث أساسيه هي :  
المرحلة الاولى : الحصول على ملفات البيانات الاساسيه صحيحه وشامله وذلك من خلال برامج الادخال ، التحقق ، التناسق ، الشمول .

المرحلة الثانيه : وتتكون من جزئين هما :  
أـ اعداد ملفات تلخيصيه للبيانات الاساسيه تساعد على استخراج التوزيعات الاحصائيه .

بـ استخراج التوزيعات الاحصائيه بشكل محفوف بالحاسب الالكتروني يمكن استرجاعه وايضا بشكل مطبوع قابل للنشر

المرحلة الثالثه : مرحلة حساب المؤشرات والعلاقات الاحصائيه اللازمه للتحليل الاحصائي وكذلك الاستخدام المستقبلي للبيانات والتوزيعات .

وتحت هذا الاطار في النظر الى النظام التحليلي فسان المرحله الاولى منه تمت مناقشتها أثناء الزياره الاولى وتم مراجعتها واستكمال معامها خلال هذه الزياره كما هو مذكور تحت بند ( ٥ - ب ) ، أما المرحله الثالثه فسوف تأتي متأخره في الوقت بعد أن يحدد الخبير الاحصائي احتياجاته الحسابيه في التحليل .

وأثناء هذه الزياره فقد استكملت مناقشه المرحله الثانيه من تحليل وتصميم النظام بجزئيه ( أ ) ، ( ب ) ، رقدت بعض الرسومات التوضيحيه بهذا الشأن ( انظر مرفق ٤ ) وقد تم شرحها والموافقه على اتباع الخطوات وأسلوب المعالجه الآليه التي تحدده .

وجدير بالاشارة انه تم اولا دراسه التبريرات الاحصائية  
اللازم اصدارها عن البحث ، كما هو وارد في بند (٤) ، مما أمكن تعريف  
الملفات التلخيصيه ومحتوياتها من البيانات لكي تفي باصدار التبريرات  
الاحصائية المطلوبه .

كما تم الاتفاق مع الحاسب الالىكتروني أن يتم اصدار جداول  
المجموعتين (١) ، (١٤) قبل منتصف يوليو ١٩٨٢ وهو موعد زياره المستشار  
الثالث للمشروع ، وذلك بالاضافه الى استكمال برامج الشمول للبيانات  
المختلفه وذلك كحد أدنى في التنفيذ ( انظر مرفق رقم (٥) : محاضر لبعض  
الاجتماعات مع الحاسب الالىكتروني )

#### ٧- استعراض مشروع السجل السكاني :

في مقابله مع سعادته الشيخ محمد عطية الله آل خليفه مدير ادارة  
الاحصاء ، فقد استعرض سعادته مشروع السجل السكاني الذي تعهده الاداره  
أعميه باله وأولريه كبيره في التنفيذ ، وتسال عن امكانيه مساعدته الامم  
المتحده / اللجنه الاقصاديه لغربي آسيا في المساهمه الفنيه والماليه في  
تنفيذ المشروع .

كما تم تقديم مرجز عن المشروع ( انظر ملحق رقم (٦) ) أعطيت منه  
نسخه للسيد الدكتور رئيس قسم الإحصاء باللجنه الاقصاديه لغربي آسيا  
لدراسه وايداء الرأي .

وايضا قام المستشار باستعراض المشروع مع السيد الدكتور رئيس قسم  
التعاون الفني باللجنه الاقصاديه لغربي آسيا والذي تواجد في مهمه رسميه  
بالبحرين لمدته قصيره خلال عمل المستشار بالبحرين .

#### ٨- توصيات : نوصي بما يلي :

أ. العمل بالاقترحات المذكوره بهذا التقرير وتنفيذ ما تم الاتفاق  
عليه مع دائرتي الاحصاء والحاسب .

ب. استمرار التعاون بين ادارة الاحصاء بالبحرين واللجنه الاقصاديه  
لغربي آسيا - مشروع مسح الاسر من أجل انجاز بحث نفقات ودخل  
الاسره .

## ٩- الأشخاص الذين تم مقابلتهم أثناء الزيارة :

### ادارة الاحصاء :

الشيخ محمد عطية الله آل خليفه مدير ادارة الاحصاء

### دائرة الاحصاء :

رئيس دائرة الاحصاء  
رئيس مشروع بحث نفقات ودخل الاسره  
المراقب المساعد للشئون المكتبية  
للبحث  
المراقب المساعد للشئون الميدانية  
للبحث  
قسم البحوث والتدريب •

السيد / ابراهيم خليفه مطر  
السيد / محمد عيسى الجراف  
السيد / محمود يوسف احمدى

السيد / اديب حسن المطاوع

السيد / عبد العزيز عجاج

### دائرة الحاسب الالىكترونى :

السيد / سيد على سيد محمد  
الانسه / نجمه الجناحي  
الانسه / سلفا بو نجاشي  
الانسه / هيام النجار  
السيد / ابراهيم المحمود

رئيس العمليات  
رئيسه محللى النظم  
محلله / ميرمجه  
ميرمجه  
ميرمجه

### خبراء ادارة الاحصاء :

مدير مشروع الامم المتحده للتدريب  
الاحصائي •  
خبير الاحصاء بدائرة الاحصاء -

الدكتور / عبد الخالى ذكرى

الاستاذ / مصطفى الجندي

### مكتب الامم المتحده :

الممثل المقيم  
نائب الممثل المقيم

السيد / عبد الرحمن الخزيم  
الدكتور / زهير أمين

### اللجنة الاقتصادية لغربي آسيا :

رئيس قسم التعاون الفني

الدكتور / لبيب عبد النور

APPENDIX NO.1

## LIST OF STATISTICAL TABLES

(Second Version)

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Interviewed Households and Household Members By:

1. Region
2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

Members of Interviewed Households by Sex and :

10. Age group
11. Level of Education
12. Marital Status
13. Occupation
14. Economic Activity
15. Employment Status
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3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

Group 3

Average Annual Expenditure on Main Groups of Commodities and services, B.D., Per Household by :

1. Region
2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

Average Annual Expenditure on Main Groups of Commodities and Services, B.D., Per Capita by :

10. Region
11. Household Size
12. Household Composition
13. Sex and Age of Head of the Household
14. Level of Education of Head of the Household
15. Marital Status of Head of the Household
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Group 4

Percentages of Household Expenditure On Groups of Commodities and Services By:

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3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household
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3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

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Interviewed Households For Income and Household Members By :

1. Region
2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

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Total Income, B.D., of Interviewed Households, By Source of Income And :

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3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

Group 8

Average of Annual Income, B.D., Per Household By Source of Income And :

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2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household
10. Group of Annual Household Expenditure.

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Average of Annual Income, B.D., Per Capita By Source of Income And :

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2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household
10. Group of Annual Household Expenditure

Group 10

Interviewed Households By Group of Annual Household Income And:

1. Region
2. Household Size
3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household
10. Group of Annual Household Expenditure



Group 11

Members of Interviewed Households By Group of Annual Per Capita  
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5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household
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Commodities, Per Capita By :

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3. Household Composition
4. Sex and Age of Head of the Household
5. Level of Education of Head of the Household
6. Marital Status of Head of the Household
7. Occupation of Head of the Household
8. Economic Activity of Head of the Household
9. Employment Status of Head of the Household

APPENDIX NO. 2

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.....		
15	1	Household Members of Interviewed Households Whose Residence Terminated By Reason And Region.
15	2	Household Members of Interviewed Households Whose Residence Terminated By Reason And Household Size.
15	3	Household Members of Interviewed Households Whose Residence Terminated By Reason And Type of Living Quarter.

GROUP NO.	TABLE NO.	NAME OF TABLE
15	4	Household Members of Interviewed Households Whose Residence Terminated By Reason And Sex and Age of Head of the Household.
15	5	Household Members of Interviewed Households Whose Residence Terminated By Reason And Level of Education of Head of the Household.
15	6	Household Members of Interviewed Households Whose Residence Terminated By Reason And Marital Status of Head of the Household.
15	7	Household Members of Interviewed Households Whose Residence Terminated By Reason And Occupation by Head of the Household.
15	8	Household Members of Interviewed Households Whose Residence Terminated By Reason And Economic Activity of Head of the Household.
15	9	Household Members of Interviewed Households Whose Residence Terminated By Reason And Employment Status of Head of the Household.
16	1	Completed Questionnaires by Type of Questionnaires and Region (for office use).



APPENDIX NO.3

DEMONSTRATION ON THE ANALYSIS  
AND COMPUTERISATION OF THE  
HOUSEHOLD COMPOSITION

For Discussion with :

Statistics Department  
And  
Computing Department

A. EL-NAGGAR  
ECWA/R.A.D.P.

9 MAY 1983



Statistics and Computer

Household  
Composition  
is =

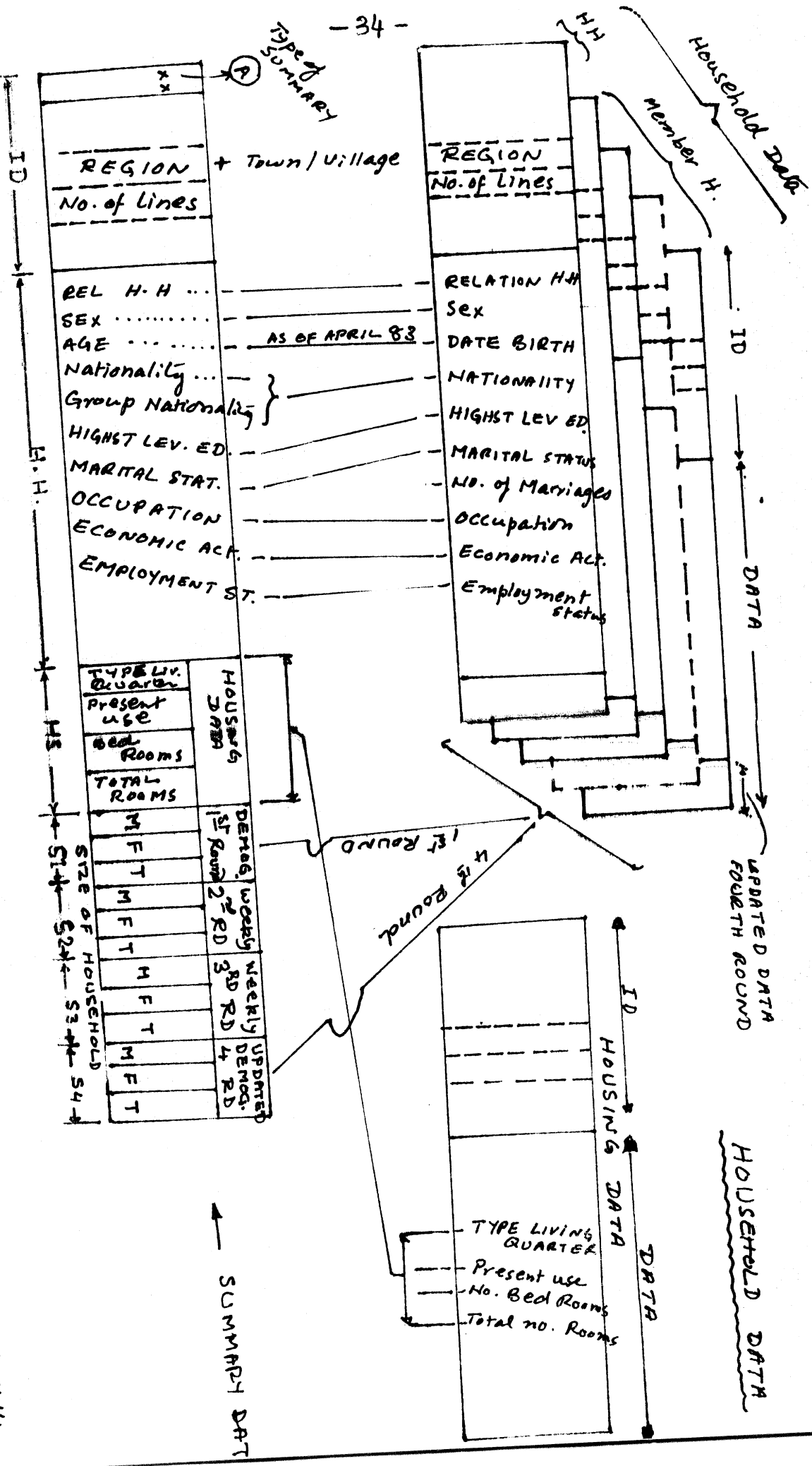
EL-Naggar  
9 May 1983

```
graph TD; Start(( )) --> Read[READ HOUSEHOLD SIZE S REL TO HH]; Read --> S1{S=1}; S1 -- YES --> A0[A=0]; S1 -- NO --> Rel1{REL=1}; Rel1 -- YES --> Add1[add 1]; Rel1 -- NO --> Rel2{REL=2}; Rel2 -- YES --> Add1; Rel2 -- NO --> Rel3{REL=3}; Rel3 -- YES --> B0[B=0]; Rel3 -- NO --> Rel4{REL=4}; Rel4 -- YES --> Add1; Rel4 -- NO --> Rel5{REL=5}; Rel5 -- YES --> Plus1[+1]; Rel5 -- NO --> Rel6{REL=6}; Rel6 -- YES --> Plus1; Rel6 -- NO --> Rel7{REL=7}; Rel7 -- YES --> Plus1; Rel7 -- NO --> Rel8{REL=8}; Rel8 -- YES --> Plus1; Rel8 -- NO --> Rel9{REL=9}; Rel9 -- YES --> Plus1; Rel9 -- NO --> LastRecord{Last RECORD of Household}; LastRecord -- YES --> ReadData[READ DATA NEXT HOUSEHOLD]; LastRecord -- NO --> Tests[Test *]; ReadData --> A0or1or2{A=0 or 1 or 2}; A0or1or2 -- YES --> Out8[8]; A0or1or2 -- NO --> A1{A=1}; A1 -- YES --> HC5or6or7{HC=5 or 6 or 7}; A1 -- NO --> Agt1{A>1}; Agt1 -- YES --> HC1or2or3or4{HC=1 or 2 or 3 or 4}; Agt1 -- NO --> B0_2{B=0}; B0_2 -- YES --> Out7_1{7}; B0_2 -- NO --> C0_2{C=0}; C0_2 -- YES --> Out6_1{6}; C0_2 -- NO --> Out3_1{3}; HC5or6or7 -- YES --> Out7_2{7}; HC5or6or7 -- NO --> B0_1{B=0}; B0_1 -- YES --> Out5_1{5}; B0_1 -- NO --> C0_1{C=0}; C0_1 -- YES --> Out4_1{4}; C0_1 -- NO --> Out3_2{3}; HC1or2or3or4 -- YES --> Out2_1{2}; HC1or2or3or4 -- NO --> C0_3{C=0}; C0_3 -- YES --> Out1_1{1}; C0_3 -- NO --> Out2_2{2};
```

The flowchart processes household data based on relative size (REL) and other variables (A, B, C, HC). It includes decision diamonds for conditions like  $S=1$ ,  $REL=1$  through  $REL=9$ ,  $A=0$ ,  $A=1$ ,  $A>1$ ,  $B=0$ , and  $C=0$ . Actions include adding 1 to counts, setting values for A, B, C, and HC, and outputting results to a vertical column labeled 1 through 8. The process ends with "TESTS \*" after reading the next household record.

( Other Methods may be used such as Logical statements or Computational Formula ... to be discussed )

TABLES		SOURCE OF DATA
GROUP	T. NO.	
1	1,2	ID, H.H., S1
	3	ID, H.H., S1, HS
	4 → 9	ID, H.H., S1
	10 → 15	ALL MEMBERS OF HOUSEHOLD (NOT SUMMARY FILE)
	1 → 8	ID, H.H., HS
14	9 → 11	ID, HS



TABLES OF GROUPS 1 & 14  
TO BE PRODUCED NOT  
LATER THAN SECOND  
HALE OF JULY 1983

WEEKLY DATA



DATA OF HOUSEHOLD SIZE :

1<sup>st</sup> Round: To be taken from DEMOC

2 RD: TOBE TAKEN FROM WEEKLY

3 RD: TO BE TAKEN FROM WEEKLY

4 RD: TO BE TAKEN FROM

WP DATA DEMO.

000000

## SUMMARY DATA (VALUE)

⑤

## TYPE OF SUMMARY

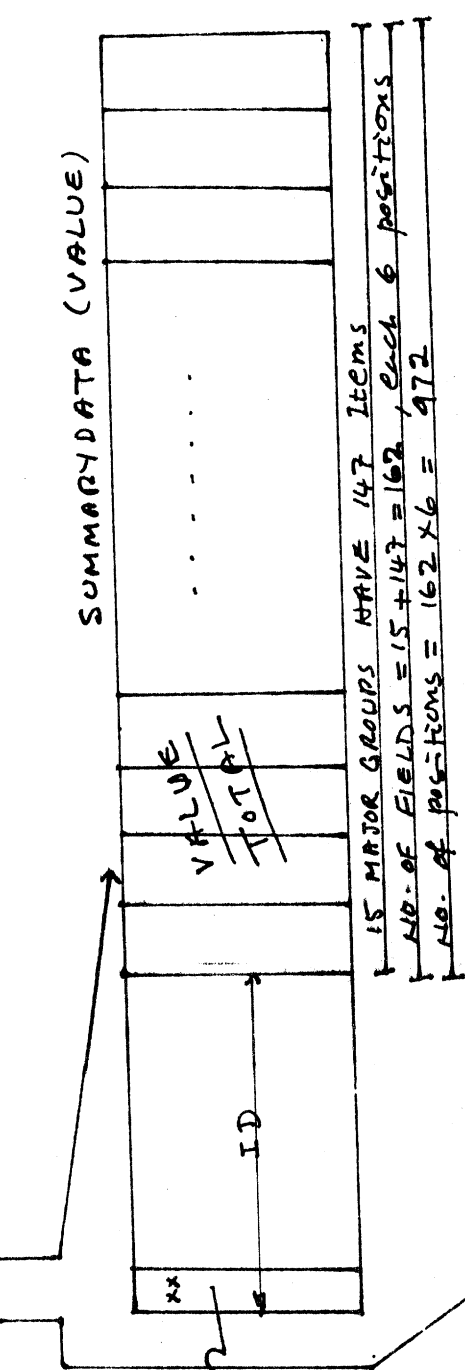
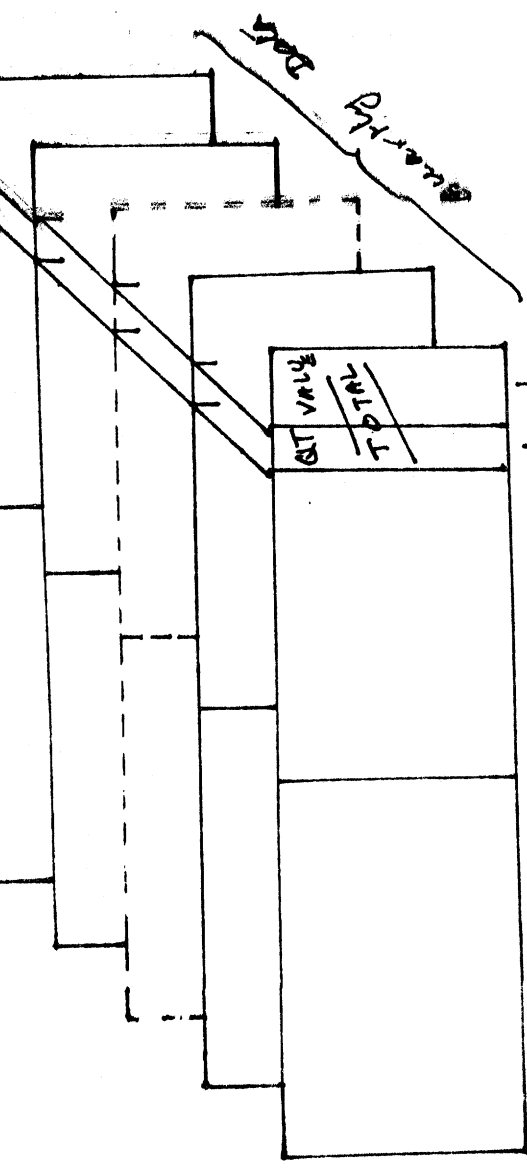
(Introduce a field to identify each <sup>file</sup> binary data file)

B2

## SUMMARY DATA (Quantity)

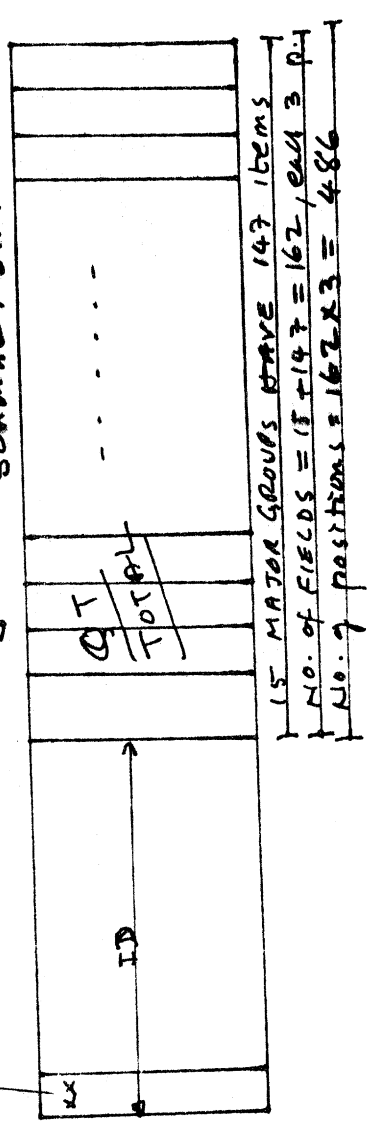
16 MAJOR GROUP HAVE 138 ITEMS  
NO OF FIELDS = 138 EACH HAVE 3 POSSI

# Quarterly Data



(C1) TYPE OF SUMMARY

SUMMARY DATA (QUANTITY)



15 MAJOR GROUPS HAVE 147 ITEMS  
 NO. OF FIELDS = 15 + 147 = 162, each 3 pt  
 NO. of positions = 162 x 3 = 486

15 MAJOR GROUPS HAVE 147 ITEMS  
 NO. OF FIELDS = 15 + 147 = 162, each 6 positions  
 NO. of positions = 162 x 6 = 972

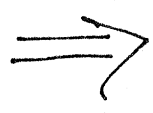
→ for families that have weekly data

A ⊕ B 1 → D

xx	ID	DATA HEAD OF HOUSE HOLD	HOUSING DATA	SIZE OF HOUSEHOLD	Weekly Commodities / Value
----	----	----------------------------	-----------------	----------------------	----------------------------

ⓓ

TYPE OF DATA



TO BE USED TO PRODUCE THE FOLLOWING TABLES

GROUP(2) (FIRST PART)

THEN

APPLY STANDARDIZATION  
BEFORE PRODUCING :

GROUP(3) (Part 1)

GROUP(4) (Part 1)

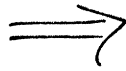
ALSO D is USED TO PRODUCE

GROUP(5) (Part 1)

A ⊕ C1 → E

XX	ID	DATA HEAD HOUSE HOLD	HOUSING DATA	SIZE OF HOUSEHOLD	Quarterly Commodities/Value

TYPE OF SUMMARY (E)



TO BE USED TO PRODUCE THE FOLLOWING TABLES

GROUP (2) (PART 2)

THEN

Apply STANDARDIZATION  
BEFORE PRODUCING

GROUP (3) (PART 2)

GROUP (4) (PART 2)

ALSO E is used to Produce

GROUP (5) (PART 2)



APPENDIX NO.5

## MINUTES OF MEETINGS WITH COMPUTING DEPARTMENT

STATE OF BAHRAIN  
DIRECTORATE OF STATISTICS  
COMPUTING DEPARTMENT

SYSTEM : HOUSEHOLD EXPENDITURE & INCOME

NOTES OF THE MEETING HELD ON 30TH APRIL, 1983 AT 8.30 A.M. -  
COMPUTING DEPARTMENT'S OFFICE

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Present : Dr. Abdullah El-Naggar - ECWA  
Dr. Mustafa Al-Jundi - Statistics  
Mahmood Ahmadi - Statistics  
Najma Al-Janahi - Computing  
Salve Bonganay - Computing

1. System Status and actions taken after ECWA's consultant leave were discussed.
2. Computing reports about above system's progress. System design was discussed in detail, especially when processing the coverage. Examples were given by ECWA consultant. Computing and Statistics agreed to check that number of persons equal number of lines.
3. Computing mentioned that validation and editing programs are ready according to checking rules provided by Statistics. Validation error list was presented. ECWA Consultant suggested to do minor changes to simplify encoders and operators job. Computing and Statistics agreed to make the following changes in validation program.
  - 3.1 Starting column numbers should be printed above each field within Heading Titles.
  - 3.2 Each Invalid Record to be printed on a line and a gap of 2 lines to be left between each record. Asterisk to be printed under invalid fields.
  - 3.3 If two similar records (duplicated in all fields) were detected, then second record should be deleted. In case that duplication occurs only in key number, then both records should be deleted and the serial number to be printed as a missing number.

contd...2

(30 APRIL 1983)

- 3.4 A skip to new page should be made for each record type.
- 3.5 Records with invalid or blank record type should be deleted from the file and defined as a missing number.
- 4. Editing rules were discussed. Layout of editing report was discussed. ECWA Consultant asked to implement same changes applied to validation report. Statistics and Computing agreed to make the following :
  - 4.1 Editing rule numbers to be specified by Statistics.
  - 4.2 Editing rule number to be printed under each invalid field.
  - 4.3 If an invalid field was encountered under one rule, then all other checks which dealt with the same field should be skipped.
- 5. Computing asked Statistics to prepare a sample of data sets to test validation and editing programs.

NAJMA AL-JANAHI

STATE OF BAHRAIN  
DIRECTORATE OF STATISTICS  
COMPUTING DEPARTMENT

SYSTEM : HOUSEHOLD EXPENDITURE & INCOME (H.E.I.S.)

NOTES OF THE MEETING HELD ON 8TH MAY, 1983 AT 11.30 A.M. IN  
STATISTICS DEPARTMENT

---

Present : Abdullah El-Naggar - ECWA Consultant, S.D.  
Mustafa Al-Jundi - Statistics Dept., S.D.  
Mahmood Ahmadi - Statistics Dept., S.D.  
Adeeb Al-Mutawa - Statistics Dept., S.D.  
Najma Al-Janahi - Computing Dept., C.D.  
Salve Bonganay - Computing Dept., C.D.

1. SD has agreed to decide on how to deal with Households which have only 2 weeks Expenditure details.
2. CD asked Statistics to assign priorities for different tasks. SD said that priorities should be as follows :
  - \* Changes to validation and edit, and coverage programs should be done first.
  - \* Table layouts and contents should be finalised.
  - \* If possible, there should be a daily meeting with CD to discuss those tables.
3. ECWA Consultant mentioned that most of the required tables were specified as a total rather than as partial. Then all group tables were categorised and defined.
4. CD mentioned that a lot of things should be confirmed from now on such as how much paper will be needed, and priority at Computer Centre should be given to H.E.I.S. programs execution.
5. SD mentioned that Group 1 (G1) should be produced for Bahrainis and Non-Bahrainis and for totals. Statistics should decide whether Nationality grouped or detailed codes should be used. Tables should be produced by Towns and Villages. Table 16 (T16) has been shifted to G16. T16 in G1 has been replaced by another table.

contd...2.

(8 MAY 1983)

6. SD mentioned that all tables which deal with Occupation Code then always 2nd digit should be used for office use tables.
7. SD mentioned that a new group will be defined to contain all Nationality codes. G1 Table No.7 should be produced as it is and same table should be produced according to 2nd digits. So G1 will contain 17 tables.
8. SD mentioned that G2 will contain 11 tables and it will be produced on quarterly basis and then yearly. Tables which contain commodity codes should be produced twice. One for durable (quarterly) and the other for non-durable (weekly). So totally, 660 tables will be required as maximum and 264 tables as minimum.

APPENDIX NO.6

## CENTRAL POPULATION REGISTER PROJECT (CPR)

APRIL 28, 1983

Due to the responsibility assigned to the Directorate of Statistics to establish a comprehensive Information System for the State of Bahrain and to provide demographic and economic statistics.

The Directorate of Statistics has foreseen the urgent need to develop firm basis on which such information could be made available so that it minimizes the effort to conduct information surveys. Thus the Government has agreed to develop a Population Register which will include Bahrainis and Non-Bahrainis. This register is to be updated regularly via an on-line computer system. The data which the Population Register will include are as follows :

- Personal Number
- Name
- Postal Address
- NAP Address
- Marital Status
- Sex
- Number of Spouses
- Nationality
- Place of Birth
- Qualification
- Specialization
- Religion
- Father's Personal Number
- Mother's Personal Number

Thus a total record of the Population is available instantly. Upon this record a perfect sample could be retrieved to conduct any Survey.

It is clear, that this basic data does not include all information about an individual. The plan which is now under implementation is that each Ministry will be able to add to this database their requirements later. For example, the following fields is to serve the Ministry of Health, Ministry of Labour and Social Affairs and Immigration :

- Blood Type
- Passport Number
- Place of Issue

contd...2.

Date of Issue  
 Date of Arrival in Bahrain  
 Reasons for Residence  
 Reasons for Living in Foreign Country  
 Labour Force Participation  
 Employment Status  
 Commercial Registration No. of Sponsor  
 Commercial Registration No. of Employer  
 Occupation Code  
 Number of Marriages  
 Age When First Married  
 Number of Children Ever Born  
 Number of Children Still Alive

Thus other data will be made available in this database once the whole system is completed.

The Directorate of Statistics has been planning this project for the last two years and the database has been created, data has been input to this database for every individual and by March 1984, the system will be activated and the database will be updated with new records. Each sector of Bahrain will be added to this database plus the fact that any individual coming to Bahrain will be registered by the system. Any individual in Bahrain can register in this system at the Health Centre or Ministry of Labour. The whole idea to implement each sector of Bahrain individually, thus providing a total coverage for the Island.

The Government of Bahrain has agreed to implement a National Household Survey Capability Programme. According to the project, documentation has been designed between the Government of Bahrain and the United Nations Representatives (ECWA). This programme will include the following :

- a. Household Expenditure and Income Survey
- b. Labour Force
- c. Demographic Survey
- d. Migration
- e. Health and Nutrition
- f. Education

As listed above, the Household Expenditure and Income Survey is already under implementation by the Government of Bahrain with the United Nations Representatives (ECWA) as the Advising Party. Regarding b, c, d and e Systems, since these are directly related to the individuals, it is essential to link these to the Population Register Project. Since the CPR project will provide

contd...3

the basis for the above four projects, all the data required for these systems will be available within its database. Once the Population Register is totally implemented, we will automatically be able to study those topics not only on a sample basis but also on a total coverage of individuals within the State of Bahrain. Information related to those systems could be then produced automatically on an annual basis.

It is the recommendation of the State of Bahrain to look closely into the Population Register and to link it with the National Household Survey Capability Programme so that by the year 1985 all those surveys and information will be available for the State of Bahrain.

If this is agreed then plans to take this into account could be made at this early stage so that once the system is completed then all the above four mentioned surveys would have been completed or nearly completed with the completion of the Survey and thus planning for such things is required to go ahead straight away so that we can achieve this task.



