OTTAWA 2023
64TH WORLD STATISTICS CONGRESS

64th ISI World Statistics Congress - Ottawa, Canada

Construction Of Admin Sources-Based Household Frame Using GIS For Abu Dhabi Emirate

Author

Mrs Alya Aldhaheri

Co-Authors

Marwa Mohammed Alsuwaidi

Abrar Salem Aldhanhani

Fatema Rashed Al Mazrouei

Dr. Mohammed Abdullah Al Refai

Rizwan Ali

Alya Aldhaheri

Submission ID: 805

Format: CPS Paper

Reference Number: 805

Brief Description

The paper aimed to construct an admin sources-based household frame for the Abu Dhabi Emirate. Administrative data gathered for purposes other than producing official statistics, provide new ways of collecting data on individuals, households, and dwellings. Many government agencies place a high value on information regarding houses and families. Currently, the Statistics center in Abu Dhabi only produces household and family information by conducting household surveys through field applications. Census data on families and households contains counts of households, data on the distribution of household sizes, and details on the relationships between people within households. Government decisions such as income support and social housing are developed and evaluated using this data. In this study, two potential data sources for creating a household frame were used. Tawtheeq data from the Department of Transport and Municipalities and Abud Dhabi and Al Ain Distribution Companies bill data (ADDC/AADC). A filter has been applied for all records from ADDC/AADC bill data and Tawtheeq data based on specific criteria in order to identify the targeted households. For example, a filter has been applied to identify residential accounts, and only the accounts that have been active in January 2022 were included. Then all non-spatial data were converted to spatial data for both sources. Moreover, FME models were generated to process all requirements to create household frames. However, to check the quality of the data a correlation has been calculated between the admin-based data and survey data has been done. As a result, it has been found that there are high correlations in some areas, moderate correlations in others, and unfortunately, some areas suffer from a low correlation.

Abstract

The paper aimed to construct an admin sources-based household frame for the Abu Dhabi Emirate. Administrative data gathered for purposes other than producing official statistics, provide new ways of collecting data on individuals, households, and dwellings. Many government agencies place a high value on information regarding houses and families. Currently, the Statistics center in Abu Dhabi only produces household and family information by conducting household surveys through field applications. Census data on families and households contains counts of households, data on the distribution of household sizes, and details on the relationships between people within households. Government decisions such as income support and social housing are developed and evaluated using this data. In this study, two potential data sources for creating a household frame were used. Tawtheeq data from the Department of Transport and Municipalities and Abud Dhabi and Al Ain Distribution Companies bill data (ADDC/AADC). A filter has been applied for all records from ADDC/AADC bill data and Tawtheeq data based on specific criteria in order to identify the targeted households. For example, a filter has been applied to identify residential accounts, and only the accounts that have been active in January 2022 were included. Then all non-spatial data were converted to spatial data for both sources. Moreover, FME models were generated to process all requirements to create household frames. However, to check the quality of the data a correlation has been calculated between the admin-based data and survey data has been done. As a result, it has been found that there are high correlations in some areas, moderate correlations in others, and unfortunately, some areas suffer from a low correlation.