

# Official Statistics in Abu Dhabi

Methodology and Quality Guidelines - Guide No. (22)



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# 1.Introduction

Statistics Centre - Abu Dhabi (SCAD) is the official authority responsible for the compilation and dissemination of official statistics in the emirate of Abu Dhabi. SCAD mandate is to provide official statistics and recent and reliable statistical data to the government and users and in coordination with the ADGEs.

The objective of this guide is to provide end users with a brief overview of official statistics produced by SCAD. Contents of this document are extracted from detailed methodology documents that are accessible through SCAD's website. That latter includes further detail, including information on statistical values, geographical coverage, alignment to international standards, data sources, as well as data adjustments, dissemination and accessibility.

At the end of this document there is a list with relevant references to, e.g., WHO, UN, and FAO.

# 2.Economy

# 2.1. National Accounts (NA)

The National Accounts has been prepared with the aim of providing the Gross Domestic Product (GDP) for the Emirate of Abu Dhabi at current and constant (real) prices according to economic activity and institutional sectors, in addition to other economic variables (such as production, fixed capital formation, compensation of employees and intermediate consumption).

National accounts statistics provide a comprehensive and coherent picture to data users on macroeconomic performance based on a set of concepts, definitions, classifications, and accounting rules. Such rules constitute an internationally agreed standard for measuring the level of economic development and the rate of change in:

- the economy
- economic activities
- the five institutional sectors<sup>1</sup>.

SCAD has worked to provide a set of economic statistics for the annual national accounts. This aims to measure the performance of the economy in the Emirate of Abu Dhabi through the measurement of GDP at current and constant prices and other economic variables at current prices (namely: production, intermediate consumption, fixed capital formation and compensation of employees). Production is the main approach used by SCAD for the core measures of GDP at an annual and quarterly basis.

SCAD produced these statistics based on the results of field economic surveys and administrative data, using clear and specific principles prepared to measure the various statistics, considering approved international guides and classifications in the field. It is noteworthy that the methodology for producing annual national accounts differs from that of the quarterly statistics, due to the difference in the sample, sources, and resources.

# 2.2. Foreign Trade & Foreign Direct Investment (FDI)

#### Inward Foreign Investment Statistics

Due to the importance of the role of foreign investment in the development and growth of the economy of the Emirate of Abu Dhabi, SCAD seeks to improve statistics by creating an accurate and up-to-date database on the foreign investment in the Emirate of Abu Dhabi, as it plays a major role in bringing technology, transferring expertise and financial resources.

Foreign investment statistics provides reliable and up-to-date information on investment in Abu Dhabi. This information is necessary for economic analysis and is based on the determination of international

<sup>&</sup>lt;sup>1</sup> Namely: non-financial corporation sector, financial corporation sector, general government sector, households' sector, sectors of non-profit institutions serving households, and the rest of world sector according to SNA.

investment status. FDI data is collected and reported at annual frequency.

#### Merchandise Trade Statistics

Merchandise trade statistics are key to understand a country's trading relationships and an essential source of information for national accounts and balance of payments statistics. SCAD's main source of data for merchandise trade is customs operations data obtained from the supervision of goods entry and exit and collection of customs duties. SCAD generally follows internationally recognized standards and concepts for compiling and publishing this data. The data is collected and reported at monthly, quarterly and annual basis.

#### 2.3. Prices

# Consumer Price Index (CPI)

Given the importance of CPI, an integrated system has been put in place that covers all aspects of price collection methods and sources and their geographical distribution. Integral to the CPI is the Household Income and Expenditure Survey (HIES), which is used for updating the CPI basket of goods and services and calculating their weights. SCAD generally carries out the HIES in 5-year intervals.

Price data are collected from around 150 main sources distributed all over the regions of the emirate and issued on a monthly, quarterly, and annual basis. The data are classified using the Classification of Individual Consumption according to Purpose (COICOP) issued by the United Nations.

The base year for the CPI Number is 2021. The weights are calculated through the results of the HIES, which was conducted by SCAD in the Emirate of Abu Dhabi in 2019.

# Construction Cost Index (CCI)

The CCI is produced on a quarterly basis. The development of the CCI was in cooperation with Contractors Association, Abu Dhabi Municipality and the Department of Economic Development (DED), which are the competent entities in this field, to prepare the weights of materials and services basket of construction costs for medium-quality towers, adopting the classifications approved by DED.

The CCI achieves several goals and benefits of interest to economic decision- and policymaking, needs of the business sector and national accounts compilation. Therefore, SCAD has worked on establishing a CCI number that reflects changes in building and construction cost prices, to provide a detailed picture of developments in the construction sector, to serve as a reliable statistical value that measures changes in construction costs, in addition to being important statistics that can be used by development planners and researchers in and production fields in general.

The CCI will be expanded in coming years to include other classifications, like residential villas, and bridge and road projects. The methodology used for calculating the CCI is mostly consistent with international recommendations and best practices in this field.

#### Hotel Price Index

The tourism sector is considered a key growth engine for the Emirate of Abu Dhabi and UAE, assigning an important role to accommodation services offered throughout the emirate. Prices of hotel stays influence Abu Dhabi's competitiveness in the tourism sector and its appeal to tourists.

The Hotel Prices Index helps the decision-makers in politics and industry, as well as tourists and others to identify changes in hotel room rates, contributing to increased transparency and development of the tourism sector in the Emirate of Abu Dhabi.

SCAD uses administrative records by the Abu Dhabi Department of Culture & Tourism (DCT) and applies its own validation rules and statistical procedures to develop the HPI and issued on a monthly basis.

#### Health Price Index

SCAD is calculating and releasing the Health Price Index on quarterly basis. The healthcare sector is highly sponsored by the government, who regards it as a key sector for improving the quality of life in Abu Dhabi and the UAE. Consequently, SCAD has sought to develop the Health Price Index to reflect changes in the price of health-related services, medications, and equipment to provide a comprehensive view of price developments in the healthcare sector.

## Import-Export Unit Value Index (MXUVI)

SCAD is the official body responsible for calculating the MXUVI, in the endeavor of the centre to fulfill the requirements Abu Dhabi Plan for provisions of accurate statistical information and data to support the decision-making process.

The MXUVI is based on merchandise trade data and therefore closely related to the merchandise trade publication by the Foreign Trade section at SCAD. However, additional steps including weighting and aggregation are undertaken by the Prices and Income section at SCAD to generate a price index from the trade data.

SCAD has compiled the MXUVI on a quarterly basis and in compliance with the best international practices and methodologies used in the calculation of unit value indices.

## Education Price Index (EPI)

The EPI is compiled by the SCAD, based on tuition fee data collected by the Abu Dhabi Department of Education (ADEK). The education sector belongs to a set of priority sectors that policymakers in the Emirate of Abu Dhabi have identified as key engines to future growth and development. The collection

and dissemination of the education price data is an important input into policymaking and monitoring education price movements.

ADEK oversees the government schools, private schools and higher education in the emirate of Abu Dhabi, aiming to uplift the quality of education to the highest international standards, as well as securing opportunities for all residents.

To compile the EPI, administrative data from ADEK is indexed according to commonly used statistical processes to form the aggregate EPI. The EPI also feeds into the CPI publication, which is issued separated by SCAD on yearly basis. However, the education group in the CPI is broader than the EPI, as it includes other items besides just tuition fees.

# Agricultural Producer Price Index (APPI)

The Agricultural Producer Price Index is one of the statistical values that constitute an important input to planning and research, especially in the agricultural fields. The APPI depends on the quantities and prices of agricultural crops supplied to agricultural marketing Centers.

SCAD is the official body responsible for calculation of Agricultural Producer Price Index. The centre receives the data of agricultural crop prices from the Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) on a monthly basis and disseminates the information derived therefrom, in accordance with internationally adopted methodologies in this field.

ADAFSA is the local authority concerned with agriculture and, food safety, food security and biosecurity in the Emirate of Abu Dhabi. ADAFSA aims to develop a sustainable agriculture and food sector and protect the health of animals and plants to enhance the biosecurity and achieve food security in the emirate.

#### Building Material Prices Statistics (BMP)

BMP statistics provide estimates of monthly average prices of materials in the construction sector. The monthly retail prices for the materials/ services included in the building materials basket are the theoretical basis for the building materials prices used in the Emirate of Abu Dhabi.

In addition, the price levels and building time aggregates (which represent the simple arithmetic mean proportional to materials' prices separately, such as certain months of the year, for instance) are being calculated.

#### Industrial Production Index (IPI)

SCAD is the official authority responsible for calculating and issuing the IPI in the Emirate of Abu Dhabi, which is issued periodically every quarter. The IPI is a statistical economic index that measures the change in industrial production prices (manufacturing industries) over time.

The IPI serves a variety of goals and is used by policymakers, businesses, and national account compilers, and is key building block in SCAD's system of important economic indices for prices, production, and other areas.

# Industrial Producer Price Index (IPPI)

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# Household Income and Expenditure Survey (HIES)

In the effort to provide social-and economic databases that reflect household spending, consumption and income, most countries of the world implement HIES, or what was previously known as a household budget survey. This survey provides an important and comprehensive database relating to expenditure and income. It is further linked to various social and demographic variables, such as the level of education, status of economic activity, geographical distribution, gender, etc. It is also a key source to provide the necessary data to build weights for the compilation of the CPI and input data in the preparation of GDP by expenditure components.

The implementation of this type of survey is characterized by difficulty and complexity as it deals with issues of expenditure, consumption, and income, and involves interviewing of households (Emirati and non-Emirati) and asking them for information about these variables, which are characterized by sensitivity.

Also, the variables of expenditure, income and consumption are prone to be impacted by seasonality. This requires following up expenditure and income throughout the year to take note of all seasonal conditions; a task which entails continued follow up of field operations for a whole year and the efforts, time and high costs involved in this process.

In view of the continuous changes in spending, consumption and income patterns, this survey is carried out every five years.

# 3. Industry and Business

# 3.1. Industry statistics

SCAD carries out a set of specialized economic surveys that aims to identify the characteristics of the activities of establishments operating in the Emirate. The industry statistics publication presents estimates

of the economic and financial performance of industry in Abu Dhabi. Within SCAD, the data are issued on a quarterly and annual basis in accordance with the System of National Account (SNA).

#### 3.2. Petrochemical and basic metals statistics

Petrochemical and Basic Metals Statistics present estimates of Abu Dhabi's international trade in manufacturing that relates to petrochemicals and base metals activities. The international trade in petrochemical and basic metals statistics are issued on an annual basis as part of the Statistical Yearbook publication

#### 3.3. Banks statistics

SCAD provides key statistics of financial intermediation activity that aims to identify the characteristics of banks activities in the Emirate. The banks statistics are issued on a quarterly basis and based on data from the Central Bank of United Arab Emirates for Abu Dhabi Emirate.

# 4. Labor Force

# 4.1 Labor Force Survey (LFS)

LFS in Abu Dhabi is part of the integrated Household Targeted Survey program, which aims to produce an accurate database for the Emirate of Abu Dhabi and its three regions. The survey also determines the Labor force size associated with developing strategic plans for the Emirate of Abu Dhabi, employing human resources, and achieving rapid and advanced development.

The demand for this information comes in response to the requirements of the Abu Dhabi government in line with the continuous development of the Emirate's economy.

The framework is to provide information and statistics on the size and distribution of the Labor force in the Emirate of Abu Dhabi and its regions, as well as the characteristics of the active population of employed and unemployed, within the following methodological pillars:

- The survey's objectives focused on obtaining annual statistics that reflect the reality of the workforce and the Labor market.
- Implementing the survey within an annual periodicity, during which the survey was conducted was determined in November of each year.
- Use of Personal Interviews "Face to Face" method for sample units to collect survey data.
- Using the random stratified cluster sampling design, the sample was drawn in two stages, without making a rotation of the sample parts.

In response to the requirements of developing the LFS to be in a quarterly periodicity starting from 2021, SCAD has made some progress on methodology items related to survey periodicity and objectives and sample rotation and data collection methods.

# 5. Population and demographic

#### 5.1 Births and deaths statistics

Vital statistics are an important component of population and social statistics because they are used for several purposes. Data on births is used in public health activities such as postnatal health care programs for mothers and infants, vaccination, and awareness-raising programs specific to health and nutrition.

Vital records are an important, basic, and direct source of demographic data, and help in exploring the demographics of population growth and change, especially births and deaths (natural increase). In addition, the data helps SCAD in identifying the trends of the population and its development now and in the future; this helps decision makers and policy designers in developing appropriate plans and programs.

The data is currently published on an annual basis. SCAD do not collect the data directly through surveys, instead they rely on administrative data supplied by the Department of Health (DOH) through their recording of births and deaths.

#### 6. Social statistics

# 6.1. Social protection and wellbeing

#### Culture, entertainment and social care statistics

SCAD as the core entity in the statistical system of the Emirate of Abu Dhabi, publishes information related to social welfare, culture, and entertainment. Data is provided from administrative sources (such as line ministries or departments) which capture the information through their respective administrative processes. In cases where it is not possible to collect data through administrative records, survey data is either collected by SCAD or by third parties who carry out surveys in collaboration with SCAD.

The respective responsibilities of SCAD and the third-party sources (e.g., administrative sources or other partners) are determined by the agreements and systems in place between the entities. Third parties prepare official statistics in accordance with statistical standards agreed upon with SCAD and laid out in Memoranda of Understanding (MoUs). Primary data from administrative sources are also treated statistically by SCAD for the preparation and dissemination of official statistics.

Compiling the social welfare, culture and entertainment statistics requires the extraction, collation and merging of certain datasets (electronic databases complemented by administrative records where appropriate) and the transformation of data into the appropriate format through certain transformations and simple arithmetic calculations being applied. Survey data is also collected from a pre-defined group of respondents using a predetermined research design. The data is subject to various editing and processing checks. Culture, Entertainment and Social Care Statistics are issued on an annual basis.

#### 6.2. Education statistics

The education sector in the Emirate of Abu Dhabi is one of the sectors that contribute to the preparation of a promising educated generation that contributes to the service of the nation and society.

Department of Education and Knowledge, in the Emirate of Abu Dhabi oversees the government schools, private schools and higher education to uplift the quality of education to the highest international standards, as well as securing opportunities for all residents to obtain high quality education.

The two key data sources for the education statistics are administrative sources and surveys like population, households, and labor force. Both the sources are interlinked and complement each other using harmonized methods, concepts, and definitions for statistics and published on annual basis.

#### 6.3. Health

#### Health statistics

Health statistics represent an important component of social statistics, as they provide information, data and statistics on the health of the population and the intensity of deaths. This is provided among different age groups, according to gender, geographical area, and other social and economic characteristics, as well as the extent of the incidence of communicable and non-communicable diseases and the percentage of children of different ages receiving appropriate vaccinations for children of these ages.

The data is categorized for communicable diseases to meet the international standards outlined by the World Health Organization's (WHO) International Classification of Diseases.

SCAD produce health statistics on an annual basis using mainly administrative data from DOH. No intensive processing or calculations are done with the data once it has been received from the DOH beyond checking and categorizing it before publication.

The Ministry of Health (MOH) conducts a National Nutrition Survey every 5 years, which SCAD take the results from to provide statistics on tobacco usage, malnutrition, and the obesity rate.

#### Health infrastructure statistics

Health statistics represent an important component of social statistics. Data on the health infrastructure in the Emirate of Abu Dhabi provides an overview of the standard of care available to its citizens through three areas:

- Health infrastructure (hospitals, pharmacies etc.)
- Health equipment (hospital beds)
- Health workforce (doctors, nurses etc.)

SCAD produce health statistics on an annual basis using mainly administrative data from DOH.

# 7. Agriculture and environment

# 7.1. Agriculture

# Agricultural census/ register statistics

SCAD is the official authority for publishing data and statistics on agricultural statistics in Abu Dhabi, including those pertaining to plants, livestock and fisheries. However, unlike some other datasets published by SCAD, agricultural statistics are not based on surveys conducted by SCAD itself, rather they are based on secondary data sources from other Abu Dhabi government entities.

The Agricultural Census and Register is conducted through a personal interview of all agricultural and fisheries holdings, delivered by a cooperation between SCAD and the Abu Dhabi Agriculture and Food Safety Authority. Food and Agriculture Organization (FAO) guidance mandates that a census be conducted at least once every ten years.

#### Livestock statistics

Agricultural statistics are based on secondary data sources from other Abu Dhabi government entities. These data are collated by the relevant organizations and shared with SCAD for collation into annual reports for agricultural topics, including livestock.

#### Food Balance Sheet

SCAD publishes a broad range of indicators relevant to the food balance sheet sector. The classification of Food Balance Sheet data is based upon the international definitions and classifications issued by the FAO of the United Nations under the "Guidance for the compilation of Food Balance Sheets. Food balance sheet statistics are published every five years, tied to the production of the HIES.

## Plants statistics

SCAD is the official authority for publishing data and statistics on agricultural statistics in Abu Dhabi, including those pertaining to plants. The classification of agricultural data is based upon the international definitions and classifications adopted in this respect and issued by FAO under the "World Program for the Census of Agriculture 2020". Plants statistics are published annually.

#### Fisheries Statistics

SCAD is the official authority for publishing data and statistics on agricultural statistics in Abu Dhabi, including those pertaining to fisheries. The classification of agricultural data is based upon the international definitions and classifications adopted in this respect and issued by the Food and Agriculture Organization of the United Nations under the "World Program for the Census of Agriculture 2020",

"Guideline for collection and compilation of fisheries statistics" and "Coordinating Working Party on Fishery Statistics". Fisheries statistics are published annually.

#### 7.2. Environment

# **Biodiversity statistics**

Primary biodiversity data in Abu Dhabi are collected by the Environment Agency of Abu Dhabi. SCAD collects and release the data on annual basis. Biodiversity data includes a list and size description of all protected areas in Abu Dhabi Emirate, and a list of all species present in the Emirate.

#### Climate statistics

Primary climate data in Abu Dhabi are collected by the National Agency of Meteorology and Seismology. SCAD calculates maximum, minimum, average, average maximum, and average minimum data for each calendar month and year. These data are released in a mixture of quarterly and annual reports.

Climate statistics includes measures of temperature, precipitation, relative humidity, wind speed, atmospheric pressure, and solar radiation.

#### Water statistics

Water statistics cover the various forms of water in Abu Dhabi. These include the quality and use of ground and marine water, the consumption and production of desalinated water, and the capacity of wastewater.

Such data is collected for the Emirate of Abu Dhabi through data supplied by the Environment Agency, the Department of Energy, and its subsidiaries. This is supplemented with the annual environmental survey for data on water sources.

SCAD provide statistics related to drinking-water quality, vital oxygen and ammonia concentrations in the sea water, and nutrients in coastal waters. Data is often collected about water quality through national and local monitoring networks in multiple locations, from which samples are taken, and chemical tests are carried out in laboratories.

Follow-up data must be represented in terms of time and place. Published data includes annual concentration rates of ammonia, nitrate, phosphate and total phosphate and nitrogen, compared to the national water quality standards or international objectives of water quality.

Data on water quality typically includes selected microbiological and chemical quality standards, in addition to the number of samples and the percentage of non-conforming samples in each category.

#### Waste statistics

SCAD is the official authority responsible for calculating and issuing Waste statistics for Abu Dhabi. SCAD collects annual data on the waste produced in the Emirate of Abu Dhabi to compile its waste statistics.

Given the importance of Waste statistics, an integrated system has been put in place that covers waste according to its type and source. The data collection is carried out by SCAD where primary data is collected through the Environmental Survey and secondary data is derived from administrative records.

# Air quality statistics

Primary air quality data in Abu Dhabi are collected by the Environment Agency of Abu Dhabi. SCAD collects and publishes these data. The data are collected from nineteen air quality monitoring stations, located around Abu Dhabi Emirate. Data for each individual monitoring station is published. The pollutants measured are: nitrogen dioxide, sulphur dioxide, carbon monoxide, ground-level ozone, and coarse particulate matter (PM10). SCAD also calculates an air quality index (AQI) which shows the level of each of these pollutants relative to international guideline levels.

SCAD calculates the average and maximum concentration of pollutants measured at a series of monitoring stations in each month and in each year. Average concentration statistics are released in quarterly and annual reports.

# **Environmental Protection Expenditure**

SCAD is calculating and publishing environmental expenditure data for Abu Dhabi through collecting annual data on environmental expenditure in the Emirate of Abu Dhabi and compile its total Environmental Protection Expenditure.

The data collection is carried out by SCAD; primary data is collected through the annual Environmental Survey.

## Renewable energy statistics

Renewable energy statistics are sourced exclusively from the Department of Energy (DOE) through administrative data tables. They include electric energy generated, consumed, transferred to the grid, and designed for solar power plants. As Abu Dhabi expands the production and use of other renewables (such as wind), statistics on these will be included.

To support the development and usage of renewable energy statistics, the emirate has launched the Masdar initiative. This company plays a vital role in promoting the Emirate's leading position in the field of energy beyond the use of oil and gas, simulating the international efforts in decreasing carbon dioxide release that causes global warming, thus supporting the process of economic diversification and the development of human resources. Data are made available on an annual frequency in the annual Statistical Yearbook and, Energy and water bulletin.

# **Electricity statistics**

Electricity data is collected for the Emirate of Abu Dhabi mainly through data supplied by the Department of Energy and its subsidiaries. They include electric energy generated, consumed, transferred to the grid, and designed for power plants. As Abu Dhabi expands the production and use of renewables (Solar energy), and sustainable energy (nuclear energy) statistics on these will be included. Most data are made available on an annual frequency in the annual Statistical Yearbook.

# Oil and gas statistics

SCAD provides statistics on the production and use of crude oil and natural gas, as well as statistics for local production and sales of refined petroleum products and gas products. Most data are collected through administrative data taken from The Abu Dhabi National Oil Company (ADNOC).

This data is supplemented through the Energy Survey of facilities operating in the field of Compressed Natural Gas (CNG) and Liquid Petroleum Gas (LPG). This is vital to know what the end use is of oil & gas data (by companies or households). Most data are made available on an annual frequency in the annual Statistical Yearbook and the Energy and Water Statistics Report.

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الرؤية: ببياناتنا نمضي نحو غدٍ أفضل