

ADANA



Reputed most with its extraordinarily fertile lands and certainly broad range of agricultural products, Adana is the center of a region called "**Cukurova**", the agricultural coastal lowlands.

It is said that the history of the city dates back to 8000 years, hosting more than 40 civilizations. In fact, throughout the history, the city itself and its surroundings have been highly attractive places for several reasons beyond the rich flora, such as , for Instance, the mild weather, rich underground and running water resources, its position to take place at the only passway to Mesopotamia on South Anatolia, broad possibilities of mining including rich silver mines.

Adana, one of the large towns of Asia Minor, about 40 kilometers from the sea, is ranking the fourth largest city of Turkey with its nearly 1,500.000 inhabitants. It is the center of the province called by its name, Adana, the territories of which go up from the south to north. The Taurus Mountains, forming the northern border-lines of the province, exhibit altitudes as high as over 3000 meters, like **Guzeller Tepesi** (3461 mt), **Turasan Dagi** (3336 mt), **Karanfil Dagi** (3095 mt), **Beydag** (3075 mt), **Tahtali Daglar** (3054 mt).

Up to 700-800 meters, land is mostly covered with maquis and fruit trees of many kinds and species. Al-most all the fruits and vegetables of Adana are famous with their taste and regarded in general to be the "most delicious ever tested".

GEOGRAPHY



The location is described by the "**Latitude 38 North** and the **Longitude 35,2 East**".^oThe coastal plain cal-led "Çukurova" has been created by conversion of the delta which was receiving the **rivers Berdan, Çakıt, Körkün** and **Ceyhan**, all saturated with alluvial materials especially during the late winter and the spring rains. The lagoon, which was known as the "**Regma Sea**", had by the time been shrinking by the forward movements of the delta. Today, **Akyatan, Agyatan, Yumurtalik** and **Tuzla** Lagoons are still surviving but they are incomparably smaller; these are called to be the grand-grand children of Regma, the mother lagoon. Finally, the very well graded plain counts **452.540 hectares**.

As it is now, Adana possesses a shore of about 160 km on the Mediterranean Sea.

River Seyhan, the Sarus of antique times, is the longest one spilling to the Mediterranean Sea from Turkey. It is 560 km long and fed by a catchment area of 20.000 sq. km. Prior to the construction of an earth-fill dam of 1,6 billion m³ accumulation capacity, which was inaugurated on the 8th April 1956, the river was every year and then flooding either late winter or mid spring, leaving behind a very rich alluvial sedimentation over the entire plain. No big floods have been recorded after the dam was put into operation but within a few consecutive years it was ascertained that despite the possibility of an efficient irrigation the yield was decreasing gradually. In fact, this was the result of giving an end to every year refreshed reinforcement by the floodcarried alluvium and modern farming by consuming adequate fertilizers was then adopted.

In the mean time, the irrigation net work enlargement has been a continual work carried out by the State Hydraulic Department, which has finally come to such a level that almost the entire plain is now irrigated from the same source.

The dam has served also as the reservoir for a hydro-power plant of three units, 20 MW each. Immediately at the up streams of this reservoir, another dam and hydro-power plant, both about 3 times bigger in capacity compared to the old dam and plant, called **Çatalan**, is now serving.

CLIMATE



Mediterranean Climate dominates from the sea shore up to 400-600 mt highs. Adana City receives no snow except appearance of some flying flakes for a few minutes throughout the year. Taurus Mountains, however, receive plenty of snow, which is regarded to be the main source of the thou-sands of the springs forming a web of streams and rivers.

The following averages are recorded (in C): °

<i>Month</i>	<i>Avg. High</i>	<i>Avg. Low</i>
January	14/16	4/6
February	15/17	5/7
March	19/21	8/10
April	23/25	11/13
May	27/29	15/17
June	31/33	19/21
July	33/35	22/24
August	33/35	22/24
September	32/34	19/21
October	28/30	15/17
November	22/24	10/12
December	16/18	6/8

It is worthy to note that it takes about 40-50 minutes drive to both the warm beaches in the south and the snow-ball play grounds at the Taurus Mountains, in the north.

MINERALS



Assurians have once called the Taurus Mountains as "**Tunni Mountains**" be-cause in this language the "**tunni**" means "**silver**". Hundreds of mine galleries encountered even today give sound idea in terms of the silver mining importance in Adana Province. Historical records deal with some treaties by which Adana People committed them-selves to furnish annually certain amount of silver. In Medieval times, too, silver mining has been pursued by Romans and later by Otto-mans. Apparently within about 3000 years time all the silver ores have been extracted and nothing remained to the modern times.

Again the history tells that the iron was first processed in Adana about 3650 years ago. The palace of **Kizzuwatna King** was known to be "**the House of Iron**". This mineral is still available at Feke, Aladag and Pozanti Districts. Iron-magnesium alloys are extracted in Ceyhan and Yumurталik.

Chromites reservoirs are rich whereas the lead and zinc are almost ending.

BOTH THE CRADLE AND THE MEETING POINT OF CIVILIZATIONS



No thorough archeological excavations are yet conducted in Adana but records show that **Zalpa Kingdom** has gathered the most ancient "**known-by-name**" community in Adana. A seal of **Ishputahshu**, the King of **Kizzuwatna**, (a religious kingdom) dated from 1650 BC, is regarded to be one of the most precious items of Adana Museum.

The reigns of **Louvians**, Kue (Quve), **Hittites**, Assurians, **Cilicians** (Synesis Period), Late Hittite Principalities (small states each ruled by a prince), **Persians**, Hellenic Term, **Seleucids**, Autonom Adana, **Pirates Term**, Romans, **Byzantines**, Palmyrians, **Caliphate (Ha-roun Al-Rashid and successors who settled turks in and around Adana)**, Byzantines again, **Seljuks**, Armenians (given reign by the First Crusaders), **Mon-gols**, Mamlouks (Ramazanoglu) and **Ottomans**. Colonies of Summerians, **Accadians** (As Sargon mentiones), Phoenicians and **Egyptians** as well as Venetians and **Genoesians** have taken part to influence the over all mosaic of Adana Culture.

POPULATION

Adana is now inhabiting about 1.600.000 (including the immediate suburbs receiving municipal services), whereas the Provincial Population is about 2.050.000.

Adana has at all the times been a center of attraction for its mild climate, fertile lands and ample natural resources. The city **has, throughout its 8000-year history, been attracted by the peoples and the individuals** who were not happy with the conditions they used to live in and therefore migration has registered itself to be a usual phenomenon. The same persists today. The city is still receiving a great number of migrants mostly from the rural areas of both the province and the country.

TALKING ABOUT NATURAL AND CULTURAL HERITAGE

Adana has recently ascertained its ample touristic potential with natural and cultural monuments. Weekend gateways are fast and cheap with several beaches less than an hour away from Adana. There are many places for boating, fishing, swimming and snorkeling. For a truly different outlook, one can head for the mountains without any premeditation, for a scenic view and relaxation. Adana is the right place for Photo-Safari. Those who like to see historical places can enjoy fortifications, castles and antique settlement areas some times as old as 6000 years, at over 70 different sites.

The center of the city, too, is a huge mound (said to be the largest in the world), which is consisted of several layers of antique periods during which cities were built one over the other. Citizens are now negotiating the idea of excavation.

Amongst the four lagoons, Akyatan is the second largest bird paradise of the country and is already under protection. The other lagoons, too, (Agyatan, Yumurtalik and Tuzla) are giving nest to a great number of native and migrating bird species.

ECONOMY

Until late 60's, Adana was the richest city of the country. In fact, almost the entire country was dependent on the agricultural products and some industries based on the same. Textiles have been the number one field of industry but after the 80's, due to high incentives granted by the governments to the entrepreneurs in other regions but non in Adana, many spindles and looms were shut down. For the same reason, many of the active factories which were in need of modernization have preferred moving to regions where incentives were ample. Certainly, another negative impact is the deterioration of the social-cultural structure because of the migration.

Notwithstanding, although it is no longer taking the first place in general, very large textile mills, most of them are integrated with dyeing, finishing and a few of them with garmenting, are producing fashionable goods. Processed foods, dominated by vegetable oil and ghee are taking an important share in the exportable goods. Manufacture includes also tobacco, machinery, auto parts, cement, plastics, synthetic chips, polyester fiber and filaments as well as fiber and filament yarns, soap, chemicals... Yet, both the agriculture and the minor industry form the propelling force of the economy. The city is known to be the marketing and distribution center for cotton, wheat, barley, water-melon, grapes, citrus fruits and early grown vegetables.

Finally, industrial products diversification range has gradually been diminishing.

During late 2000, the Mayor launched a campaign to improve the overall economy, which found immediate support from a great number of NGO's, mainly from the Chambers of Commerce, Industry, Agriculture and many others...

Recent statistical indicators show evidently the considerable increases in:

- use of capacity,
- productivity & yield,
- employment,
- sales,
- export take-offs,
- Liquidity...

DISORDERLY SETTLEMENT



MULTI-FACADE PROBLEMS

Impacts of mostly poor and uneducated newcomers outcrop as set-backs and bottle-necks almost in every single field of municipal services.

The municipality budget worked out with extremely limited revenues against a giant list of "top priority" needs, could not really help fighting the problems resulted by the migration and the consecutive neighbourhoods emerged at the outskirts of the city in the form of uncountable slums piled-up by consuming any material that could be found around. Every single one of such neighbourhoods at the same time becomes a hatcher of great social and economical problems intensifying day-by-day.

SATELLITE CITY AT NO COST

In 1984, Adana was an ever expanding city. Expansion, however, was generally created by the piles of slums erected on the fertile lands with no any infrastructure at all. Mr. Aytac Durak, soon after winning the mayoralty, launched his program. He claimed that the city had for long been expanding to-wards and over the extreme-ly fertile lands while the hilly, rocky and unfertile Northern lands were intact. He immediately started with the re-arrangement of the ownership of the lands, which entitled the municipality to own legally a 35 percent of the lands at the same area. Using this, the Municipality started with constructing huge boulevards and other infra-structures over a 3000 hectares virgin area. Even be-fore the completion of the primary coating of the new large boulevards and roads, the private entrepreneurs started constructing apartments, with an ever uptrending rate. This area has been designed for

200.000 dwellings with an easy access to plenty of green areas, play grounds, schools, markets and similar social facilities. Marking up of the lands owned in the mean-while by the municipality paid back all the expenses incurred while it was initiated. Currently about 85.000 dwellings are under occupation in this area, besides those being constructed nowadays.

CHEAPER THAN THE UNHEALTHY SLUMS

The project has a second façade; using only the "**Collective Housing Credit**" supplied by the governmental institutions, the municipality constructed about 4000 small dwellings as the alternate to the slums. These buildings, too, were constructed at the same area, called the "**New Adana**". At the end, it was realised that these proper dwellings were much superior to any slum besides the considerably lower cost. Moreover, the citizens when living in the slums were lacking sufficient municipal services, are now enjoying almost all the contemporary facilities in a healthy environment. The campaign has later been co-pied by a great number of cooperatives established by low income citizens. The result was good; the control of the city expansion was evident and fewer slums were built.

"ADANA WAY"

OF HANDLING

**HIDDEN SHORES
UNVEILED**



8th April 1956 indicates one of the most important milestones of Adana. A hydro-power plant was put into operation with two "vertical axis turbine's" each running a 20 MW generator. This capacity was far above the levels that Adana could consume at the time. The plant was connected by an intake to a large reservoir created by accumulating water over a huge area,

behind an earth-fill dam. It was only in mid 80's, when a road parallel to lake contour was constructed, Adana could then realise that the reservoir, be-sides feeding the power-plant, was acquiring splendid shores and cute bays which were some-how hid-den to the public view.

This road, known today as the **Menderes Boulevard**, has served also as the gateway to **the New Adana...** In other words, it has been the key work for a huge satellite city created without incur-ring any penny either by the municipality or the central government.

Speaking about the 2x20 MW powerhouses, it should be noted that this plant is now operating 3 units, representing an installed capacity of 60 MW. Moreover, the Switchboard of the plant has been developed to suffice tandem operation with several other power plants (Kadincik I, Kadincik II, Yuregir)

HOW COULD A RIVER EMIT SUCH ODOURS!

River Seyhan, the historians know it as **River Saros**, used to be respected as a sacred river on which many legendary tales related to its gods and goddesses were told. Medieval historians from the Middle East call it "**Kizilirmak**", meaning the Red River for it carries during the rainy seasons tonnes of alluvial material enroute the plain from the highs of the Taurus Mountains. Since the 17th Century, it is called "**River Seyhan**".

The reservoir mentioned above was designed also to run the power plant but its main task has been to supply water into the channels fee-ding an extensive irrigation net-work throughout the huge Adana Plain. For irrigation, closing the gates as of early spring in order to keep as much water as possible was indispensable. So, a limited volume of water, as released from the turbines only, was flowing into the river bed. A large bed ex-posed to the sun and persistent evaporation, was turning into a swamp under contamination of rotten plants, died fishes and even animal carcasses. Hence, this famous river was becoming every summer a disgusting torrent bed, originating epidemics and gene-rating bad odours worsened by an extremely poor look.

INEXISTENT ENERGY SOLD WITHOUT METERREADING

The Municipality designed a small hydro-electric power plant taking place beneath a concrete gravity dam to strain between the banks of the river at the downstream of the main settlement area. The design was offered to the electric company opera-ting the power plants in the region. Finally the parties have reached an agreement. The company constructed the dam which serves also as a 6-lane bridge, against operating the power plant. Hence, this river bed as described above became a beautiful 4,5 km long inner lake in the middle of the city. The shores of this crystal clear and ever blue lake were subjected to a long run recreation project. All these have been achieved by spending no single penny from the Municipality.

IT LOOKS GREAT! LET'S CREATE ANOTHER LAKE

Between the big reservoir at the upstream and the new lake crossing the settlement area was a segment of water behind a 65 years old structure regulating the water fed into the main irrigation channels. The citizens urged the municipality to conduct a similar recreation project on this segment, too, in order to have a chain of lakes with continual walking and bi-king lanes to extend as long as 20 kilo-metres.

That's how the "**Dilberler Sekisi**" Project was elaborated. It was simply rearrangement of the embankments and widening the river bed.

The nature had provided some potential beauties to the city and citizens made use of them gradually.

Again, the expenses were covered by allocating a land to the Chamber of Commerce with permission to build their social facilities with a design to fit the environment, on BOOT (Build-Own-Operate-Transfer).

PARKING FACILITIES FOR THE SHOPPERS!

Shopping centres and arcades are adding value to the contemporary city life. Adana, decided to construct two big shopping centres complete with multistorey auto parking facilities over the lands hidden amongst the slums but close to the regions where trade activities are immense.

On two different locations, huge buildings emerged in a comparably short time with 4 lower floors devoted for shops of various dimensions and upper 3 floors for modern auto-parking. Each floor was practically spared for certain commodity sellers, such as, for instance, green groceries, butchers and poultry product or dairy product sellers, electronic household utensils dealers... Interest was higher than contemplated and most of the shops were sold even before the shutters were erected for the basement slab. The new owners were clever enough to judge that the shoppers were experiencing horrible problems to park their cars and in facilities where parking is no problem number of shoppers would be high. So is happening now as the two buildings are now almost complete and every day one or two shops are inaugurating. Certainly, the revenues from the stores and the parking facilities have already covered all the expenses but the main goal, to beautify the two very poor looking areas was achieved successfully. Moreover, the surrounding shops, too, have been influenced and changed a lot their view to adapt themselves to a better appearance.

NOT ONLY SUFFICIENT WATER, "STABILIZED" PRESSURE ALSO

Adana, famed once with its rich and delicious underground water, had been suffering both shortage and ever worsening quality due mainly to the migration and other impacts of the modern technology. As much as 130 electric driven submersible and high capacity pumps were feeding the network. Inevitably, the water was polluted and the manometric pressure was fluctuating at all the times. Treatment by bio-chemical agents and re-pairing the failures caused by both the pressure variations and the insufficiency of the very old distribution system on top of the heavy burden of the electric energy, the unit production cost was extremely high. Furthermore, some buildings had been obliged to install hydro-pumps in order to have the water raising up to the upper floors. List of difficulties reflected with the prevailing conditions could be longer, of course...

A definite solution was designed taking into consideration that the Çatalan Dam construction was coming to an end. Its reservoir was to be filled with almost unpolluted water running down from the highs of the Taurus Mountains, some-times in piles of snow balls melting enroute the reservoir.

The Mayor convinced the citizens that the severer water problems were knocking the door and that they could only be overcome if every individual would sacrifice. Finally, the unit price of the water had been marked-up to assist financing the initial works. In the mean time, The European Investment Bank, too, granted favourable loan. The works have been and are proceeding ahead the schedule. About 50 percent of the city network is fed by the new system, which requires no any sort of energy as it is based on the gravity flow. Main supply ducts are as large in diameter as to give passage to a 17 tons per second. The manometric pressure is now regulated and can be kept constant saving thus considerable expenses which were incurred previously incurred for repairs. Only a small portion of these savings will be sufficient to pay back the loan. It is scheduled to supply the entire network till the end of 2005. However, improvement of the network may take about half a year or so.

OK, WHAT ABOUT THE SOLID WASTE HEAPS?

Adana had been disposing off the solid waste at a landfill area not too far away from the city centre, practicing simply the wild dumping. By the time, the land-fill site had been reflecting many problems such as odour, smokes and pollution. In 1998, a grant provided by the Japan Inter-national Cooperation Agency has been the stand base of launching several improvement projects. So far, the drainage and control of leachet as well as refurbishment of the old piles in a way to form and continue a Sanitary Land filling have been achieved. Currently, the tender document for a technological treatment is under preparation. Principles have been set forth to take into consideration the absolute necessity of extracting all the recyclable items including energy, heat and soil conditioners. The essential point is that the treatment facilities shall in no case involve any incineration to avoid both the risk of the dioxin and the loss of compost. The early investigations indicate that the cost of the treatment plant shall be covered in a great percentage by economising on the actual expenses and the revenues from the recycled products, including energy and/or fuel.

WASTE WATER WILL NOT BE WASTED

Adana acquires the reputation of being the first and the only large city which has completed its sewage system. The entire waste water is under control and the whole system is connected to two giant collecting conduits. Unfortunately, downstream the settlement area, these conduits were discharged into the river and thus to the Mediterranean Sea.

With the support of the **East Mediterranean Salvation Program**, a highly attractive credit has been allocated by the European Investment Bank aided City to start the works for two Wastewater Treatment Plants, each has the capacity to treat the total volume of waste water carried by the main discharge conduits. The bigger one called "West Adana Treatment Plant" is already operating satisfactorily. The East Adana Plant construction is progressing well and after about a one year time, no any drop of waste water will be wasted. Both plants are serving with biological treatment and designed to produce soil conditioners and electric energy while releasing treated water as clean as the fish can live in it.

TRANSPORTATION VERSUS POLLUTION

Four years ago, the Municipality started operating environment-friendly coaches to reduce the air pollution caused by the public transport. These new coaches were at the same time air conditioned, a great plus for a warm city like Adana. Notwithstanding, prior to the putting into operation the municipal coaches, majority of the public transport was managed by private cooperatives of bus-owners, who have adopted the habit of frequent increase of the rates. Municipal coaches have immediately taken the control of the rates by means of the free competition, simply. Citizens liked the new coaches and far lower fares. Presently about 200 municipal busses are taking an important role in both the transport and the competition of the rates, as well as the comfort.

In the meanwhile, the construction of a 13, 5 km's metro line has started. The Schedule shows that the system shall be serving Adana as of Mid-2007.

35.000 STUDENTS ENJOYING ADANA UNIVERSITY

University of Adana, called **Cukurova University** occupies foremost place among the other universities in the Country. It is sprawling over a very large area located at the shore of the Seyhan Dam Reservoir.

NGO'S TAKING THE INITIATIVE OVER

In 2000, the Municipality elaborated a comprehensive Charter to form the "City Committee" under the true initiative of the NGO's to achieve a real participatory local administration. The NGO's, at the beginning, did not believe that they could really play an important role in this committee and were mostly reluctant. Presently, how-ever, all the individuals are highly satisfied with and proud of the committee because it is working with well defined agendas, thorough studies, negotiations, conclusive debates and notable influence on all the actors of the city, including the citizens.