

REPUBLIC OF TUNISIA
Ministry of the Environment and Sustainable Development



THE NATIONAL SANITATION UTILITY
ANNUAL REPORT 2005

O.N.A.S. IN BRIEF

1. Establishment:

The National Sanitation Utility (O.N.A.S.) is a public company of an industrial and commercial character, serving under the authority of the Ministry of the Environment and Sustainable Development, and enjoying the status of a civil entity and financial autonomy. It was established by Law N° 73/74, dated 3 August 1974, and entrusted with the management of the sanitation sector. The Law establishing O.N.A.S. was amended pursuant to Law N° 41/93, dated 19 April 1993, which promoted the Utility from the status of a networks and sewers management authority to the status of a key operator in the field of protection of the water environment.

2. O.N.A.S. Missions:

- Combating all forms of water pollution and containing its sources;
- Operation, management and maintenance of all sanitation facilities in O.N.A.S. action zone;
- Promoting the sector of distribution and commercialisation of treated wastewater and sludge;
- Conducting sanitation studies and works on behalf of the State or local government;
- Planning and implementation of integrated projects relating to the treatment of wastewater and the drainage of storm water.

3. O.N.A.S. Fields of Action:

- As regards studies and works: O.N.A.S. serves throughout the Tunisian territory;
- As regards operating and maintenance of sewers and sanitation facilities: O.N.A.S. serves directly in the zones annexed to its purview by decree;
- As regards technical assistance: O.N.A.S. provides technical assistance and guidance to local government and other institutions in the field of combating water pollution.

4. O.N.A.S. Administrative Organisation:

The National Sanitation Utility is managed by an Executive Board chaired by a CEO and composed of representatives of the ministries concerned by O.N.A.S. activities, as well as a representative from major municipalities.

MEMBERS OF O.N.A.S. EXECUTIVE BOARD

Khalil ATTIA	President of the E. B.
Maher KAMMOUN	Prime Ministry
Noureddine BEN REJEB	Ministry of the Environment and Sustainable Development
Mohamed BELKHIRIA	Ministry of the Interior and Local Development
Moncef MILED	Ministry of Development and International Cooperation
Rakia LAATIRI	Ministry of Agriculture and Water Resources
Ali ABBASSI	Ministry of Equipment, Housing and Land Use Planning
Samir BELAID	Ministry of Finance
Mabrouk ENDHIF	Ministry of Public Health
Mohamed Ali KHOUAJA	National Water Distribution Utility (SONEDE)
Noura LAROSSI	National Environment Protection Agency (ANPE)
Slah EL BALTI	Municipality of Ariana
Ather CHAABANE	State Comptroller

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FOREWORD

As part of its endeavour to promote environmental information, collect and disseminate relevant data, the National Sanitation Utility (O.N.A.S.) issues, on a yearly basis, a report on the salient activities that have marked its work during the year. The report offers such data in its concern to provide all parties interested in our activity, in a periodic manner, with the exact indicators and the updated information to keep up with the developments marking the sector over the years.

The present document is not so much an overview of figures as it is a testimony to the interest granted by the highest authorities to the sanitation sector as a major contributor to sustainable development and an active partner in the environmental policy adopted by our country.

We hope this report on the salient activities of O.N.A.S. in 2005 will be of use to all parties concerned, it being an information tool and a stimulant to pursue effort in order to further boost the significant achievements made by Tunisia in all sectors and, above all, the environmental sector.

O.N.A.S. CEO

Khalil ATTIA



2005 IN FIGURES

- **111** million Tunisian dinars (TND) of investments realized.
- **5** new wastewater treatment plants commissioned: Hencha, Zaghouan, Mateur, Haouria and Hajeb Layoun.
- **693** km of sewerage pipes laid.
- **68 000** new subscribers to the public sewerage network.
- **86%** rate of connection to the public sewerage network in municipalities in O.N.A.S. action zone.
- **3** new municipalities entering in O.N.A.S. action zone: Hencha, Bouficha and Kalaa.
- **201** million m³ of wastewater treated.
- **29%** of treated wastewater reused for the irrigation of **9 000** hectares distributed among irrigated zones, golf courses and certain green spaces.
- **50** popular quarters reporting completed sanitation works, which brings the total number under the four bid packages of the Programme of Sanitation of Popular Quarters to **656** quarters.
- Pursuing the Presidential Programme for Rural Sanitation: sanitation works completed for the zones of Oued Elkhatf and Béni Ayache, and sanitation works in progress for the zones of Bechimmet Elqalb (Governorate of Gabès) and Ain Kemicha and Sidi Jedidi (Governorate of Nabeul).
- Signing the contract dedicated to operating the sewerage networks and **2** wastewater treatment plants of Bizerte and Menzel Bourguiba by the private sector.



MAJOR EVENTS

1.Re-election:

Re-election of O.N.A.S. to the membership of the Executive Board of the Mediterranean Water Institute.

2.Events and field visits:

- Information day on O.N.A.S. programmes for 2005 – 2006;
- Field visit for environment journalists on 25 April 2005 comprising the two wastewater treatment plants of Hencha and Northern Sfax;
- National seminar on “The Management of Wastewater Treatment Plants in Rural Environment”, on 9 June 2005;
- Training day for environment journalists on 10 June 2005 under the title “The Sanitation Project: From Study Phase to Implementation Phase”;
- Field visit conducted by a delegation representing the “Agriculture, Industry and Trade Commission” of the Tunisian Parliament to the two wastewater treatment plants of Ben Arous and Chotrana, on 6 July 2005;
- Maghrebi seminar on “Reuse of Treated Wastewater”, on 30 September and 1 October 2005;
- Field visit for environment journalists on 19

December 2005 to the wastewater treatment plants of Menzel Bourguiba, Mateur and Ousja.

3.Inception of the work of preparation for the XIth National Economic and Social Development Plan

Preparation of the first and second phases of the XIth Plan, based on an evaluation of the achievements of the Xth Plan (2002 – 2005), and setting out the major orientations for the sanitation sector during the XIth Plan (2007 – 2011).

4.O.N.A.S. joins the national plan for the spinning off of economic enterprises

5. Preparing a new O.N.A.S. organisation chart

6.Commissioning of 5 new wastewater treatment plants

7.Issuance of the Decree related to defining the terms and conditions for awarding sanitation infrastructure BOT contracts to private developers.



Evolution of sanitation indicators

Indicators	2004	2005
* Number of municipalities in O.N.A.S. action zone	152	155
* Number of inhabitants in O.N.A.S. action zone (million inhabitants)	5.7	5.8
* Number of inhabitants connected to the network in O.N.A.S. action zone (million inhabitants)	4.8	5.0
* Connection rate in O.N.A.S. action zone	84.5%	85.7%
* Length of network (Km)	12018	12771
* Number of wastewater treatment plants	*78	*83
* Number of subscribers (thousand subscribers)	1202	1270
* Volume of water consumed by O.N.A.S. subscribers (million m ³)	208	219
* Volume of treated wastewater (million m ³)	192	201

(*) Inclusive of wastewater treatment plants in rural environment



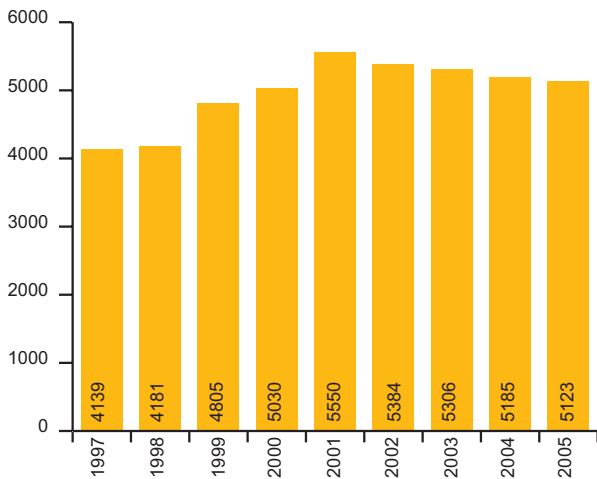
HUMAN RESOURCES

The total number of O.N.A.S. staff, as of end of 2005, counted 5 123 employees, distributed as follows:

Executives:	525	10.20%
Supervisory staff:	832	16.30%
Workers:	3 766	73.50%



Evolution of the number of staff in the period 1997 - 2005

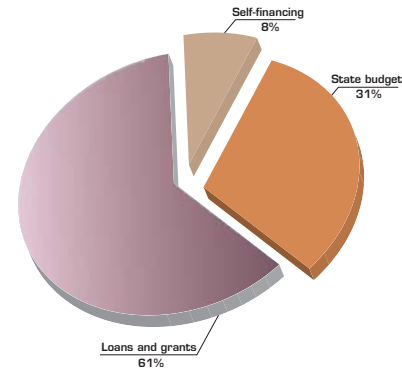


FINANCIAL RESOURCES

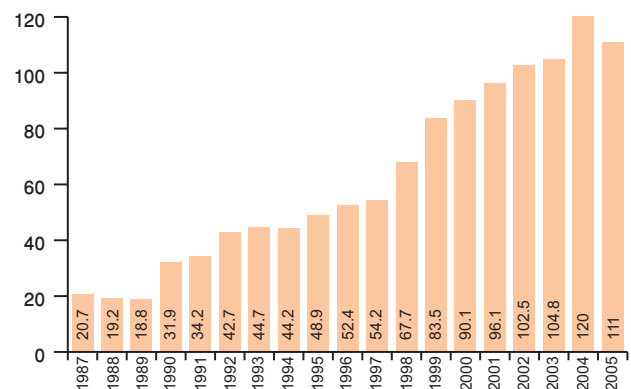
1. Capital expenditure:

The volume of investments made, during 2005, has amounted to about 111 million TND, as against 120 million TND for the year 2004. These investments were financed as follows:

Investment financing profile in 2005



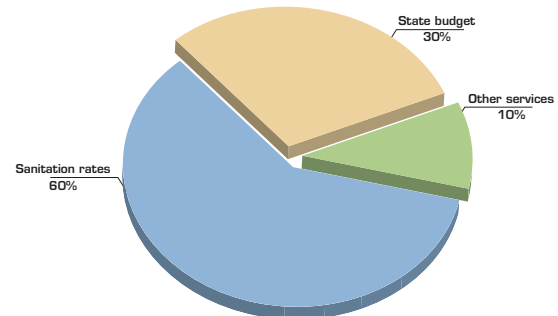
Evolution of investment volume (in million TND)



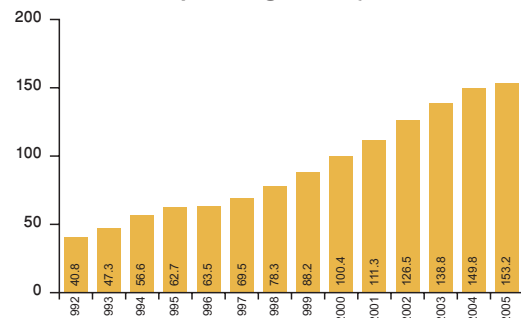
2. Operating costs:

The operating costs amounted, for 2005, to about 153.2 million TND, as against 149.8 million TND for the year 2004. These costs were financed as follows:

Profile of operating costs



Evolution of operating costs (in million TND)



STUDIES

1. Sanitation master plans in cities and regions

The year 2005 reported the completion of the sanitation master plans for several cities, as well as pursuing the design and updating of master plans for other cities. The work done in this regard was as follows:

Master plans incepted in 2005	Master plans in progress	Master plans completed
Master plan for the Governorate of Monastir	Pont de Bizerte (Bizerte bridge)	Maamoura Kélibia
Master plan for the Governorate of Nabeul	Béni Khédache Zarzis (updating)	Grombalia Menzel Témime Menzel Bouzelfa Soliman

1. Construction of wastewater sanitation plants

Preliminary design and environmental impact assessment studies:

Studies incepted in 2005	Studies in progress	Studies completed
Extension and rehabilitation of 6 wastewater treatment plants: Mahdia, El Jem, Sayyada, Sidi Bouali, Kala Sghira and Ouardanine	Bir Mcherga Nadhör Menzel Kamil Souassi	Sidi Thabet El Kettar Takelsa Tala
Extension and rehabilitation of 6 wastewater treatment plants: Kasserine, Ksour Essaf, Moknine, Sidi Bouzid and Nefta	Mezzouna Ouled Haffouz Bir El Hfay/ Sidi Ali Ben Aoun	Shiba Ain Draham Jemna Degache

• Final design studies:

The year 2005 reported the completion of the final design studies related to 12 wastewater treatment plants, in addition to pursuing the final design studies concerning the construction of 5 plants and incepting such studies for a further 10 plants:

Studies incepted in 2005	Studies in progress	Studies completed
Southern Sousse Sousse/ Hamdoun Extension and rehabilitation of 8 wastewater treatment plants: Nabeul SE4, Soliman, Menzel Bouzelfa, Grombalia, Sahline, Dkhila, Maharès and Gafsa	Mornaguia Makthar Jerissa Maknassi Northern Hammamet	Bouarada Sers Sakiet Sidi Youssef Dahmani Tajerouine El Mrazga El Krib Extension of the WWTP* of Bizerte Extension of the WWTP* of Medjez El Bab Extension of the WWTP* of Southern Sousse Ain Draham Hammam Bourguiba

* WWTP : wastewater treatment plant

3. Final design studies for extension of the network:

The year 2005 reported the following activities:

- completion of the final design study related to the cities of Sers and Bouarada, as well as the treated wastewater transfer system in the cities of Ras Jebel, Rafraf and El Alia, and the wastewater transfer system in the city of Ain Draham;
- pursuing the studies related to the cities of Mornaguia, Makthar, Jerissa and Maknassi, in addition to the wastewater and treated wastewater transfer systems for the two wastewater treatment plants of El Attar and Kairouan;
- inception of the preliminary design and environmental impact assessment studies related to the extension and rehabilitation of 50 pumping stations, in addition to the final design studies related to the extension and rehabilitation of 80 pumping stations.



WORKS

1. Construction works of wastewater treatment plants:

The major achievements made during 2005 were as follows:

- completing the construction works of 5 wastewater treatment plants in Hencha, Zaghouan, Mateur, Haouaria and Hajeb Layoun; concurrently, works were pursued for the construction of the following plants:

Name of wastewater treatment plant	Progress status	
	Civil works	Equipments
Bouhajla	95%	95%
Bouargoub	100%	98%
El Fahs	92%	
Haffouz	Nearing completion	
Extension and rehabilitation of the wastewater treatment plant of Southern Sfax	92%	
Agareb	85%	
Métlaoui	70%	
Queslatia	Nearing completion	80%
Nefza	100%	
Touza/ Béni Hassane	65%	
Chebba	97%	

- incepting the construction of 8 wastewater treatment plants in:

Name of wastewater treatment plant	Progress status	
	Civil works	Equipments
Jebeniana	50%	
Chotrana 2	30%	
Southern Méliane	35%	
Mareth/ Ezzarat	20%	
Métouia/ Oudhref	20%	
Jerba/ Ajim	Just starting	
Kerkennah	Just starting	

1. Sewerage network extension works:

The year 2005 reported the works of construction of 693 km of pipes for wastewater collection and disposal, and this within the framework of implementation of the projects planned by O.N.A.S.

1.1. Storm water drainage

- Completing the works of storm water drainage in the cities of Gabès (El Izdihar quarter), Siliana (Essalaah quarter), Monastir (Route de Khenis), Radès (Taieb Mhiri quarter), Boumhel Bassatine (El Hadaïq quarter), Sakiet Ezzit, Tébourba, Jedaida (El Firdaus quarter) and Tunis (El Aouina);
- Pursuing the execution of the works of the 2nd Bid Package of the storm water drainage project in the Southern Lake of Tunis and incepting the works of extension of the storm water reservoir in Ennasr 2.



OPERATION SCOPE

The National Sanitation Utility (O.N.A.S.) operates, in the municipalities in its action zone (numbering 155 municipalities out of 264 in total).

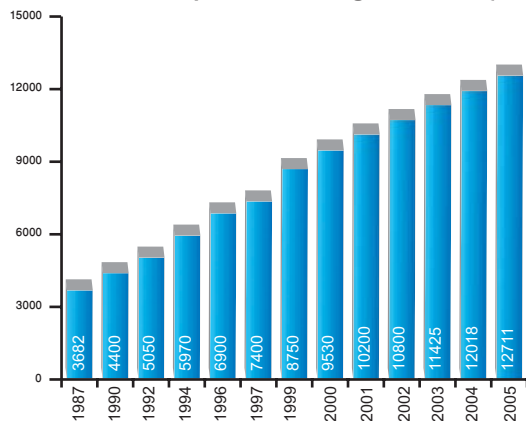
The total population of the municipalities in O.N.A.S. action zone is about 5.8 million inhabitants; that is about 87% of the urban population.

As for the population connected to the public sewerage network, in O.N.A.S. action zone, it counts about 5 million inhabitants; accordingly, the connection rate in O.N.A.S. action zone was about 85.7% in 2005.

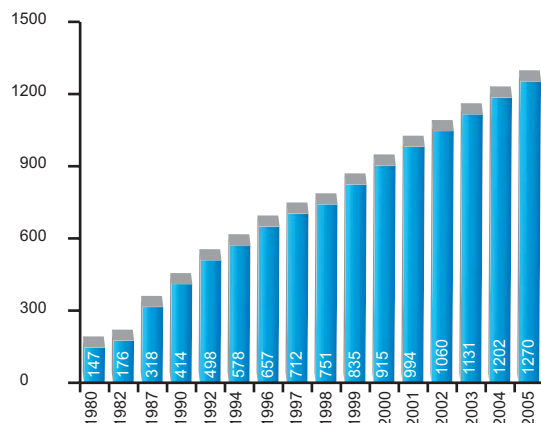
The facilities comprise:

- 12 711 km of pipes,
- 908 000 connection boxes,
- 595 pumping stations,
- 80 wastewater treatment plants (urban environment),
- 3 wastewater treatment plants (rural environment).

Evolution of the public sewerage network (in Km)



Evolution of the number of subscribers to the public sewerage network (thousand subscribers)



These facilities have allowed in 2005:

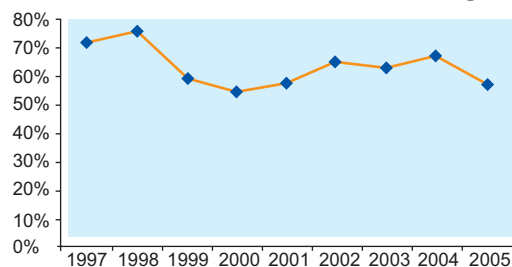
- collection of about 219 million m³ of wastewater;
- treatment of about 201 million m³ of this wastewater.

Besides, in order to ensure efficient collection and disposal of treated wastewater, O.N.A.S. undertakes prevention works consisting in clearing and flushing the wastewater facilities by the use of state-of-the-art machinery and equipment. In this regard, the year 2005 reported the following actions:



- clearing about 7 129 km of sewers, that is about 56% of the operated network;
- clearing and flushing about 356 000 connection boxes, 446 000 inspection holes and 61 storm water gutters;

Evolution of the rate of sewer clearing



- control of 3 653 samples and conducting about 213 683 laboratory analyses, which revealed significant improvement of the quality of treated water by comparison with 2004;
- conducting dedicated and urgent intervention at certain wastewater treatment plants, such as renewing the flaps of the aeration equipment at the plant of Southern Méliane, use of thickening products at the plants of Sayyada and Sahline, in addition to conducting clearing works at the aeration ponds of certain plants such as Southern Méliane, Houmt Souk and Dkhila;
- clearing and flushing of pipes over a length of 126 km and 28 storm water collection reservoirs of a total volume about 900 000 m³, the programme covering the Governorates of Tunis, Ariana, Manouba, Ben Arous, Nabeul, Sousse, Kairouan, Sfax and Bizerte;
- clearing of about 260 km of primary storm water networks, within the framework of sub-contracting projects, which covered the municipalities of Tunis, Marsa, Carthage, Sidi Bou Said, La Goulette, El Kram and the city of Ariana (together with 6 adjacent quarters), Fouchana, Mohamedia, El Mourouj and the city of Bizerte. As for the works conducted based on O.N.A.S. own capacity, they covered all the country's Governorates.

It is also worth mentioning such other actions as:

- lowering the water level in the sabkha of Ariana;
- improving the state of the environment in the sabkha of Sedjoui, and this by constructing two pumping stations together with assigning two routes: one for a discharge of the water in the port of Tunis and the other for discharge of the water in Oued Méliane;
- maintenance and backfill of part of the sludge dewatering ponds of the wastewater treatment plant of Chotrana.

RURAL SANITATION

1. Final design studies

The evaluation study related to the technical and institutional aspects of rural sanitation is now nearing completion. It relates to such rural zones as Khanguet El Hojjaj, Chorfech, Chouigui and Béni Ayache. Besides, the interim report on the study was discussed in September 2005 and it is expected to organise a workshop where the final report on the study will be presented and the relevant recommendations will be made.



As regards the second bid package of the programme involving the sanitation of 12 zones for a cost of 13 million TND, it is envisaged to pursue the final design studies through 2005 – 2006, with a view to construction in the period 2006 – 2008.

Concerning the third bid package, it is expected to incept the final design studies as soon as the funds necessary for the project are mobilised.

2. Works

O.N.A.S. reported the completion in 2005 of the sanitation works of the two zones of Oued El Khatf and Béni Ayache (Governorate of Nabeul) and pursued the works related to the zones of Bechimmet Elqalb (Governorate of Gabès) and of Ain Kemicha and Sidi Jedidi (Governorate of Nabeul).

RATIONALISATION OF ENERGY USE

In view of the significant volume of MV power, which accounts for 96% of the total electric power consumed, O.N.A.S. pursued the implementation of the programme of MV power efficiency by enhancing the electricity network power factor ($\cos \phi$) and reviewing the power supply contracts in order to better adapt the pricing system and the subscribed power to the actual needs of the wastewater treatment plants and the pumping stations. This programme allowed the achievement of energy saving of about 400 000 TND, that is a decrease in energy consumption by 5%.

Besides, the overall power consumption ratio reported an improvement from 1.2 kWh/kg of organic pollution in 2004 to 1.16 in 2005. This ratio is considered to be good by comparison with the ratio reported at similar wastewater treatment plants abroad, which attests to the efforts invested in energy conservation.

The cost of the electrical energy consumed in 2005

amounted to about 8.864 million TND (8.368 for MV and 0.496 for LV), as against 8.270 million TND in 2004.

The increase in the power expenditure related to the operating of wastewater treatment plants and pumping stations (MV power), amounting to 512 thousand TND, may be distributed as follows:

- 447 thousand TND resulting from a rise in electricity prices;
- 65 thousand TND resulting from increase in consumption (pumping about 219 m³ of water in 2005, as against 208 in 2004, and treatment of 201 million m³ in 2005, as against 192 in 2004).

TREATMENT OF FOUL ODOURS

1. Drastic measures:

- Pursuing the studies aimed at abandoning certain wastewater treatment plants that had been encroached upon by urbanisation, of which the wastewater treatment plants of northern Tunis and of Kairouan, as well as designing a preliminary programme for the rehabilitation of others which were prompted beyond their maximum capacity (19 wastewater treatment plants);

- Construction of 11 new biofilters distributed among the directorates of Tunis, Ben Arous, Sfax, Gabès/ Médenine/ Tataouine and Ariana/ Manouba;

- Preparation of tender documents for the covering of certain wastewater treatment plants in Soliman, Korba, southern Hammamet and Zeriba, the 2 sludge thickening plants at the wastewater treatment plant of Nabeul, as well as constructing biofilters in these facilities and in six (6) other plants.

2. Preventive measures:

- Installing 241 units for the treatment of foul odours generated by various sanitation facilities. This system consists of 109 biofilters, 45 plants for lime-spraying units for the treatment of odours, 58 iron-pyrites pumping units and 11 pumping units of RC 600, together with the use of deodorant products at 25 locations in wastewater treatment plants;

- Continuous clearing of seasonal rivers and water courses crossing towns and cities;
- Contribution in the regional cleanness and environment protection programmes.



RESEARCH & DEVELOPMENT

1. Research fields:

- Water treatment,
- Rural sanitation,
- Sludge management,
- Treatment of foul odours,
- Energy efficiency at wastewater treatment plants.

2. Research activities:

- pursuing the research work related to studying the features of water moss, in cooperation with the Faculty of Pharmacology of Monastir and the National Agronomy Institute of Tunis;
- identifying 11 research topics aimed at enhancing the output of treatment processes at 9 wastewater treatment plants, in cooperation with 4 research laboratories and research units, within the framework of the joint research programme;
- evaluation of secondary treatment at the wastewater treatment plant of Menzel Bourguiba, in cooperation with the Faculty of Sciences of Bizerte;
- conducting an experiment consisting in the development of micro-organisms in pilot tanks, in cooperation with the Faculty of Pharmacology of Monastir;
- pursuing the study of the physiochemical features of sludge constituents at 13 wastewater treatment plants in order to identify such constituents for the various treatment processes. Work was also pursued with a view to identifying the rate of fixed organic contaminants in the sludge constituents;
- pursuing the action of monitoring the efficiency of the bio-filter based system for the treatment of foul odours, and this based on diagnosing the various gases issuing from the plant;
- conducting research on energy audit and the use of wind energy at three wastewater treatment plants, in cooperation with the Tunis School of Engineers.

3. Findings of certain research works:

- As regards the monitoring and evaluation of additional treatment by ray-based clarification and sterilisation at the wastewater treatment plant of Mahdia, it was found that the treatment plant allowed a significant reduction

of bacteriological contaminants by as much as 97% upon reduction of salinity and lowering of water flow through the sterilisation plant;

- Proven efficiency of the new technology applied with regard to the use of bio-technology to address saturation at the two wastewater treatment plants of Sayyada and Sahline;
- Concerning the technologies used in rural environment, the research work has involved an evaluation of the operating of the pilot wastewater treatment plant of Oued Zarga based on a treatment process using the fixed bacterial cradle; the results obtained reveal that the treated wastewater is compliant with the standards.

REUSE OF TREATED WASTEWATER

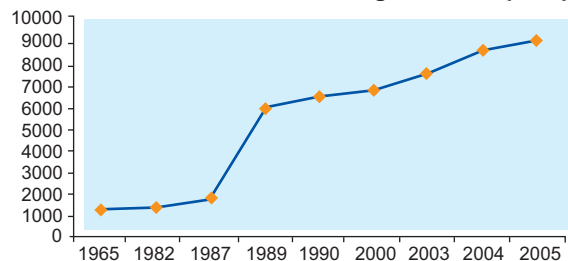
Currently, about 29% of the treated wastewater is re-used for the irrigation of 9 000 hectares, distributed as follows:

- farming zones: 7 900 ha;
- golf courses: 760 ha;
- green spaces: 340 ha.

Treated wastewater is also used indirectly for the recharge of the water table and for the safeguard of wetlands.

The areas equipped for treated wastewater irrigation has increased considerably since 1989, following the equipment of the zones of Borj Touil (Governorate of Ariana), Mornag (Governorate of Ben Arous), Dhraa Ettamar (Governorate of Kairouan), El Hajeb (Governorate of Sfax), and Zaouiet Sousse (Governorate of Sousse).

Evolution of treated wastewater irrigated zones (in ha)

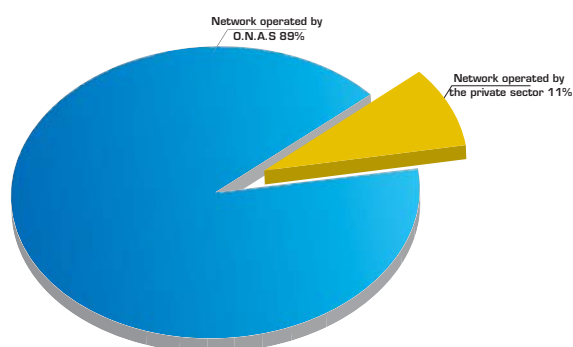


INVOLVING THE PRIVATE SECTOR

In this regard, O.N.A.S. has pursued the action of devolving to the private sector the services of operating the sewerage networks in the zones of El Mourouj, Fouchana, Mohamedia, Ariana, Ennasr, El Menzah, El Khadhra, and Tataouine, as well as the wastewater treatment plants in Tataouine, Nefta, Tozeur, Bizerte and Menzel Bourguiba.

The network operated by the private sector now extends over 1 205 km of pipes and includes 40 pumping stations and 5 wastewater treatment plants.

Involvement of the private sector



BOT contracts

As regards BOT contracts, O.N.A.S. is currently considering the construction of a second wastewater treatment plant in El Attar (El Attar 2), with a capacity of about 50 000 cubic metres/day, and another plant in El Allaf, with a capacity of about 45 000 cubic metres/day, together with the construction of the wastewater transfer systems.

Concerning the wastewater treatment plant of El Attar 2, the preliminary short-listing of bidders has been approved by the monitoring committee, together with issuing the decree related to defining the terms and procedures of awarding sanitation facilities BOT contracts to private developers in the Tunisian Official Gazette (Journal Officiel) on 19 December 2005.

As regards the wastewater treatment plant of El Allaf, the Consultancy Group incepted the related studies in April 2005; the first phase reports, consisting of the feasibility study and the environmental impact assessment study, were submitted in draft version late in 2005.

ORGANISATIONAL AND INFORMATION ASPECTS

Organisational aspects:

- Completion of the study dedicated to revising the O.N.A.S. organisation chart and preparation of the final design;
- Preparation of the manuals of procedure related to the management of subscribers, procurement,



stock, human resources and contracts, as well as of the first fascicle of the accounting and financial manual of procedure;

- Completion of the study on the management control system;
- Preparation of 152 job description files according to the new organisation chart;
- Design of the quality manual of subscriber management (pilot project in the District of Ariana);
- Establishing a data base for the forms in use, in preparation for making them accessible on line (Intranet and Intranet).

Information and communication aspects:

- Establishment and implementation of the IT applications dedicated to the management of the operating budget, national and international procurement, stock management, and the management of fixed and rolling stock;
- Incepting the establishment and pilot-testing of the IT application dedicated to customer management, monitoring non subscriber water and the relations with SONEDE (National Water Distribution Utility);
- Incepting the establishment of an IT application dedicated to the management of sanitation facilities, customer complaints and water quality management;
- Incepting the establishment of IT applications dedicated to monitoring project planning and contract monitoring;
- Launching a new tri-lingual website (Arabic/ French/ English);
- Publication of multi-media communication tools to disseminate knowledge about O.N.A.S. and its activities in the various fields of its action.

CAPACITY BUILDING

O.N.A.S. pursued its capacity building programmes by conducting the following actions:

- Conducting 123 training sessions: this involved 129 days of training and the participation of 1 811 staff, thus reporting a training rate of 35%;
- Stepping up in-house training and focusing on O.N.A.S. special activities, which contributed in cutting down training costs and raising the number of beneficiaries.

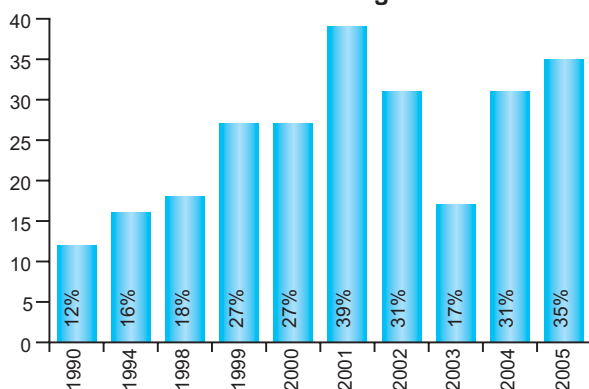
The training sessions were as follows:

- in-house training: 108 sessions for 1751 participants,
- external training: 15 sessions for 60 participants.

It is worth pointing out that the training sessions addressed the following topics in particular:

- management and operating of wastewater treatment plants,
- maintenance of equipment and machinery,
- studies and works,
- information and communication technologies (ICTs);
- occupational health and safety;
- administrative and financial management;
- rational energy use.

Evolution of training rate



TECHNICAL COOPERATION

O.N.A.S. received, in 2005, several foreign and local delegations in its concern to strengthen cooperation ties and promote the Tunisian experience in the field of combating water pollution. These visits were as follows:

1. Visits by foreign delegations:

- Visit by a delegation from Finland conducting a study on "Evaluation of the Cost of Environment Degradation";

- Visit by a delegation from Chad wishing to know more about the public procurement system in Tunisia;

- Visit by a delegation from Mauritania wishing to know more about the Tunisian experience in the field of sanitation;

- Visit by a delegation from the Moroccan Drinking Water Bureau;

- Visit by a delegation from the Turkish company "SUBOR" specialised in the manufacture of PRV pipes;

- Visit by a delegation from Egypt wishing to know more about wastewater treatment plants;

- Visit by a senior official from Oman wishing to know more about the technical aspects related to wastewater treatment plants and network operation;

- Visit by a Saudi delegation from the General Directorate of Meteorology and Environment Protection, belonging under the authority of the Ministry of Defence and Aviation, to know more about the Tunisian experience in the field of sanitation;

- Visit by a delegation from the French company "Deployment Factory".

1. Signing cooperation agreements:

The year 2005 reported the signing of cooperation agreements with the following foreign institutions:

- The National Administration for Sanitation and Control of Pollution and Hazards in the Republic of Mali;
- Drinking Water and Sanitation Authority (Arab Republic of Egypt);
- Sustainable Development Consultants (Arab Republic of Syria).

2. Other:

- Initiating a multilateral cooperation project : University of sfax, University Chouaib Doukali - Morocco and the National Drinking Water Authority of Morocco (ONEP), University Téthys - France.

FINANCIAL COOPERATION

The activities conducted in 2005 in this regard relate to:

Signing two financing agreements with the German Development Bank on 9 December 2005 granting O.N.A.S.:

- a loan of an amount of 4.6 million euros towards financing the project Sousse 2;
- a loan of an amount of 23.6 million euros towards financing the second bid package of the Project of Sanitation of Small and Medium-Sized Towns.



SOCIAL ACTIVITIES

In its concern to extend support to its employees, in times of need, O.N.A.S. undertook, in 2005, several social actions of which in particular:

- Extending 542 grants, amounting to 158 000 TND, through the Relief Fund;
- Extending financial aid by the Staff Mutual Association, with O.N.A.S. support, to 525 beneficiaries of a total value amounting to 68 thousand TND. The financial aid targeted special social cases and temporary staff, in consecration of the national solidarity principle, and this on the occasion of religious, national and seasonal feasts and events;
- Organising several cultural and leisure events for the children of O.N.A.S. employees covering all Regional Directorates (celebration of "Education Outstanding Achievement Day" and of the National and World Environment Day; organisation of summer holidays for children in the country and abroad);



- Organising cultural and religious activities for O.N.A.S. employees in support of the social and humane dimension within the institution.





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