



厦门市环境状况公报

厦门市环境保护局 1997年

Bulletin of Environmental Status
Xiamen Municipality of 1997

一九九七年厦门环境状况公报



Bulletin of Environmental Status of Xiamen Municipality of 1997

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1 总述 Outline

1.1 国民经济和社会发展

National Economy and Social Development

1997年,在厦门市委、市政府的领导下,全市人民认真贯彻落实党的十五大精神,抓住香港回归和海峡两岸直航的良机,继续深化改革,积极推进两个根本性转变和特区的二次创业,国民经济和社会发展均取得了长足的进步。

The year of 1997 saw great progress in national economy and social development. Last year, under the leadership of Committee of Chinese Communist Party and Government of Xiamen Municipality, Xiamen people made great efforts to carry out the principles and policies set by the 15th Conference of Chinese Communist Party and took the opportunity of Hong Kong's Returning to China and the direct transportation between both sides along Taiwan Strait to continue intensified reform, to promote the fundamental transformation and the second pioneering of Special Economic Zone.

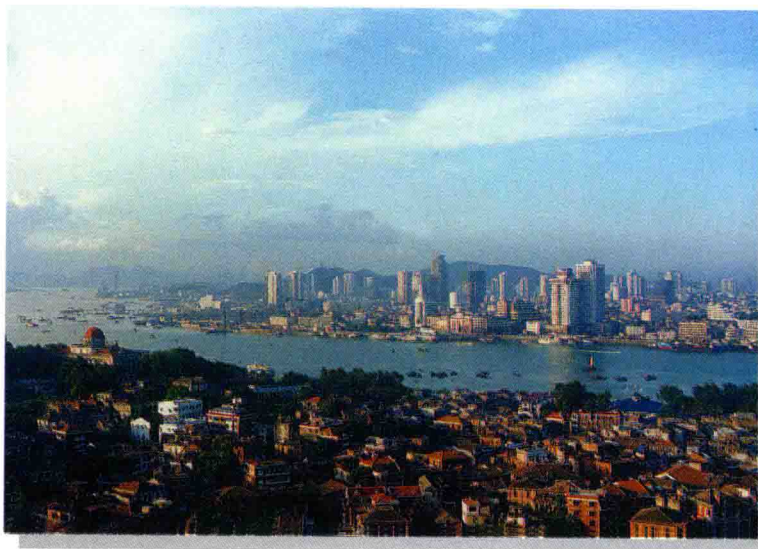
1.1.1 国民经济保持了“高增长、低通胀”的良好发展态势

The national Economy Showed a Benign Development Trend of "Rapid Development with Low Inflation"

1997年,厦门市实现国内生产总值371.8亿元,比上年增长21.4%。其中,第一产业增加值22.4亿元,增长8.4%;第二产业增加值191.4亿元,增长22.2%;第三产业增加值158.0亿元,增长21.6%。按原口径计算的人均国内生产总值为2.8万元,增长19.6%(按常住人口计算的人均国内生产总值为2.2万元,增长18.3%)。三次产业比较协调发展,结构有所调整,第三产业比重上升,第一、第二产业比重有所下降。1997年厦门全年共完成工业产值425.4亿元,比上年增长15.8%。

In 1997, the gross domestic production (GDP) of Xiamen Municipality reached 37.18 billion RMB, 21.4% higher than that in 1996, among which the production of primary industry, secondary industry and tertiary industry increased 2.24 billion, 19.4 billion and 15.8 billion RMB respectively, compared with 1996, 8.4%, 22.2% and 21.6% higher than those of 1996. The GDP per capita was 28,000 RMB with an increase of 19.6% as calculated on same statistical base (the GDP per permanent resident would be 22,000 RMB and 18.3% increase). The three sectors developed harmoniously in 1997 with an structural adjustment indicated by the increase of tertiary industry component and decrease of primary and second industries. In 1997, the production of industry reached 42.54 billions RMB, 15.8% higher than that in 1996.





1. 1. 2 宏观经济效益有所提高

Improvement of Macro - Economic Results

由于科技进步和劳动者素质的提高以及市场竞争的增强,促进了全社会劳动生产率的稳步提高。全年全社会劳动生产率 3.9 万元,按可比价格计算,比上年增长 17.6%。

Due to the advance of science and technology, improvement of labor force's quality and strengthening of market competition, the production efficiency of the whole society was gradually improved. The labor productivity of the whole society in 1997 reached 39,000 RMB, 17.6% higher than that in 1996, calculated on bases of comparable price.

1. 1. 3 城市建设继续推进 Urban Construction

国家重点建设项目海沧大桥工程总投资 28.7 亿元已基本落实,1997 年完成投资 5.5 亿元,工程进展顺利;泉厦、厦漳高速公路、集美立交桥改造连接线及环岛路二期 4 公里黄厝段示范路、杏滨二期等项目已建成通车,城市交通运输能力得到进一步加强。

The budget for Haicang Bridge, a State key project, has been fixed, the construction of this bridge progressed successfully with completion of investment of 0.55 billion RMB in 1997. Transportation construction such as high way of Quanzhou - Zhangzhou, Xiamen - Zhangzhou, linking road for Jimei Viaduct, the 4 km long Huangchu Road of the Xiamen Island around route and secondary phase of XinBin project have been realized, which improved the urban transportation ability.

1. 1. 4 人口保持低自然增长、人民生活进一步改善

Low Rate of Natural Population Increase and Further Improvement of People's Living Standards

至 1997 年末,全市登记户籍人口 124.7 万人,比上年末增加 1.7 万人。全市人口自然增长率 4.71‰,比上年下降 0.54 个百分点。

据抽样调查,全年我市城镇居民人均生活可支配收入在 8980 元,比上年增长 6.2%,扣除物价因素,实际增长 3.2%;农民人均纯收入 3629 元,比上年增长 9.2%,扣除价格因素,实际增长 6.1%。

城乡人民居住条件得到进一步改善,全市安居工程房屋竣工面积 31.8 万平方米;城市居民人均居住面积 10.6 平方米,比上年增加 0.9 平方米;农民人均生活用房面积 37.7 平方米,比上年增加 2.2 平方米。



At the end of 1997, the registered population of Xiamen Municipality was 1.247 million, 17000 increase than last year. The natural population increase rate was 4.71‰, decreased by 0.54‰ than last year.

According to the sample survey results, the disposable personal income for urban residents reached 8,980 RMB, 6.2% increase than that in 1996 with an actual increase of 3.2% after consideration of price factors; the income of peasants reached 3,629 RMB and was 9.2% higher than that in 1996 with the real increase of 6.1% after deduction of price increase.

The housing environment was improved further, 0.318 million m^2 houses were constructed; urban residents have 10.6 m^2 house per capita and farmers have 37.7 m^2 per capita for living with an increase of 2.2 m^2 than that in 1996.

1.2 创建国家环境保护模范城市

Development of State City of Environmental Protection

1997年,市委、市政府将创建国家环保模范城市这项工作列入政府工作的一项重要任务。市委、市政府成立以市委副书记、市长洪永世为组长,市委常委和副市长为副组长,由各部、委、办、局、区政府一把手组成的厦门市创建国家环境保护模范城市领导小组,下设办公室,统一负责组织和协调全市开展“创建”活动。洪永世市长在创模动员会上指出:创建国家环境保护模范城市是关系到我市建设社会主义现代化国际性港口风景城市这一总目标的一项基础工作,是实施党中央、国务院制定的可持续发展战略目标的大事,是改善我市投资环境,吸引外资的重要环节,是为民办实事,关心人民工作和生活,为全市人民创造一个良好的工作、生活环境的体现。

由于市政府对于环境保护工作的高度重视,厦门市的环境保护工作取得了较大的成效:

(一) 环保部门参与市里经济和建设的重大决策,使环境与经济协调发展。

(二) 环保投入逐年增多,1997年厦门市用于环境保护的资金7.86亿元,占全市国内生产总值的2.18%。

(三) 加快立法步伐,建立健全环境保护法规体系,使环境保护工作进入法制化管理的轨道。

(四) 依法管理环境,努力控制污染,工业污染防治取得较大进展。

(五) 市长统一领导,部门分工负责,城市环境综合整治成效显著。

(六) 环境科研不断发展。

(七) 环境监测水平逐年提高,为环境管理服务的能力进一步加强。

(八) 环境宣传教育更加广泛深入, 公众环境意识进一步提高, 社会影响逐步扩大。

(九) 整治生态破坏, 保护沙滩林地, 生态环境的保护得到强化。

根据厦门市人民政府的申请和福建省环保局的推荐, 国家环保局组织的国家环境保护模范城市考核组于 1997 年 8 月底对厦门创模进行全面考核, 一致认为: 厦门市创建国家环境保护模范城市工作成效显著, 城市的社会、经济和环境协调发展的综合水平处于全国领先地位, 达到国家确定的各项考核指标的要求, 符合国家环境保护模范城市的标准。1997 年 11 月 4 日厦门等 6 个城市在人民大会堂被授予“国家环境保护模范城市”的光荣称号。

In 1997, The City Committee of Chinese Communist Party and City Government set the Development of State Model City of Environmental Protection as an important mission of the Municipal Government. A leading group in charge of development of State Model City of Environmental Protection was set up and headed by the mayor and deputy mayors, its members were composed of chiefs of Departments, Committees, Offices, Agencies and Districts of Xiamen Municipal Government. Under the leading group an office was established to uniformly organize and coordinate activities of this mission. At the mobilization mass meeting for this mission, mayor Hong Yongshi indicated that development of State Model City of Environmental Protection was a basic task concerning the realization of the general goal to build Xiamen a modern international scenic port city, the implementation of the strategic objectives of sustainable development set by Central party Committee and the State Council, the important work to improve investment environment to attract more foreign funds, as well as the practical activities for people and the creation of a sound environment for work and living of Xiamen people.

Thanks to the great attention of the Municipal Government to environmental protection, many achievements were obtained in the course of Xiamen's environmental protection:

- a. Participation of environmental protection services in important decision processes of the municipal economic and social projects promoting harmonious development of environment and economy.
- b. Increase of input in environmental protection career, in 1997 the total investment of environmental protection reached 0.786 billion RMB, 2.18% of GDP.
- c. Speeding up of law legislation to construct a holistic law system of environmental protection so as to realize a lawful management of environmental protection.
- d. Management of the environment according to the laws, the control of pollution, prevention and mitigation of industrial pollution gained great progresses.
- e. Uniformed leadership under the mayor and definition of responsibilities among various sectors, produced good results of urban comprehensive environmental mitigation.
- f. Continuous development of environmental scientific study.
- g. Continuous improvement of environmental monitoring level, which provides stronger ability for environmental management and service.



h. More and deeper environmental education, public environmental awareness was enhanced, resulting in greater social benefits.

i. Mitigation of ecological deterioration, protection of sand beach and forest, ecological environmental protection was intensified.

With the application of Xiamen Municipal Government and the recommendation of Environmental Protection Agency of Fujian Province, the assessment group for State Model City of Environmental Protection organized by the National Environmental Protection Agency made a comprehensive appraisal on the activities and results concerned the development of State Model City of Environmental Protection carried out by Xiamen Municipality in August 1997, the group concluded that Xiamen has made notable advances in development of State Model City of Environmental Protection, that the coordinated development of urban society, economy and environment of Xiamen Municipality has ranked at the top level around the State and that Xiamen has met the various requirements formulated by the State and the standards for a State Model City in respects of environmental protection, thereby Xiamen, along with other 5 cities, was conferred a title of honor of "State Model City of Environmental Protection" on 4th of November, 1997.

1.3 城市环境综合整治定量考核

Quantitative Appraisal of Integrated Mitigation of Urban Environment

为实施可持续发展战略, 厦门经济特区十几年来坚定不移地贯彻环境保护基本国策, 不断加强环境综合整治工作, 使得厦门市在经济高速发展的同时, 环境质量持续改善, 城市环境综合整治定量考核成绩跃居全国前列。

1997 年厦门市城市环境综合整治取得明显成效, 经市环委会自评, 城考指标得满分的有 12 项。与 1996 年相比, 有较大改善的指标有 8 项, 基本持平的 15 项, 略有下降的指标仅有 1 项。

经过几年的努力, 我市先后建成交通、能源、供水、排水、污水处理、煤气、集中供热、垃圾无害化处理、园林绿化等一大批环境基础设施建设项目, 环境基础设施建设日趋完善。环境建设各项指标均达到《国家环境保护模范城市的考核指标》的要求。

In order to implement sustainable development strategy, Xiamen Special Economic Zone firmly realizes the fundamental State policy of environmental protection in the past dozen of years, continuously enforces integrated environmental mitigation, accordingly the environmental quality of Xiamen City has being improved along with the rapid development of economy, the results of assessment on achievements of integrated environmental mitigation reached at the top level over the State.

In 1997, the integrated mitigation of urban environment of Xiamen City showed remarkable progresses. According to the self-check-appraisal by the Environmental Protection Committee of Xiamen City, 12 indicators were given full credits. Compared with 1996, great improvements were achieved for 8 indicators, same credits were given to 15 indicators, only one indicator was given slightly lower score than that in 1996.

Due to the efforts in the past several years, a series of environmental infrastructures projects were fulfilled including transportation, power and water supply, sewage discharge facilities, waste water treatment ability, gas supply and use, concentrated heating supply, harmless treatment of refuse, gardening and greening, in general, the construction and development of environmental infrastructures is perfected day by day. Various indicators of environmental construction all met the requirements set as the "Evaluation Standards for State Model City of Environmental Protection".

城市环境综合整治定量考核结果汇总表

Summary of Results of Quantitative Appraisal of Integrated Mitigation of Urban Environment

1997

序号	指标类别	代码	考核项目	计量单位	指标值	得分值	总分值
1	环境质量指标	Z 01	大气总悬浮微粒年日平均	毫克/立方米	0.079	4.00	26.20
2		Z 02	二氧化硫年日平均值	毫克/立方米	0.007	3.00	
3		Z 03	氮氧化物年日平均值	毫克/立方米	0.024	3.00	
4		Z 04	饮用水源水质达标率	%	97.20	5.16	
5		Z 05	城市地面水水质达标率	%	90.00	4.50	
6		Z 06	区域环境噪声平均值	dB(A)	56.50	3.67	
7		Z 07	交通干线噪声平均值	dB(A)	69.70	2.87	
8	污染控制指标	K 01	水污染物排放总量削减率	%	\	\	21.27
9		K 02	大气污染物排放总量削减	%	\	\	
10		K 03	烟尘控制区覆盖率	%	90.85	3.48	
11		K 04	环境噪声达标区覆盖率	%	62.70	4.00	
12		K 05	工业废水排放达标率	%	75.41	3.03	
13		K 06	汽车尾气达标率	%	76.00	2.76	
14		K 07	民用型煤普及率	%	\	\	
15		K 08	工业固体废物综合利用率	%	81.28	4.00	
16		K 09	危险废物处置率	%	100.00	4.00	
17	环境建设指标	J 01	城市污水处理率	%	52.55	4.00	19.29
18		J 02	城市集中供热率	%	43.68	3.00	
19		J 03	城市气化率	%	94.10	3.00	
20		J 04	生活垃圾处理率	%	94.88	4.00	
21		J 05	建成区绿化覆盖率	%	35.41	2.54	
22		J 06	自然保护区覆盖率	%	7.00	2.75	
23	环境管理指标	G 01	环境保护机构建设	%	已独立	3.00	15.17
24		G 02	城市环境保护投资指数	%	2.18	4.00	
25		G 03	“三同时”合格执行率	%	100.00	3.00	
26		G 04	排污费征收面	%	88.15	2.29	
		G 05	排污费征收率	%	\	\	
27		G 06	污染防治设施运行率	%	98.00	2.88	
总 计 分					81.93		



2 大气状况

Status of Atmospheric Environment



2.1 环境空气质量

Atmospheric Environmental Quality

1997 年, 厦门市的空气质量仍然保持在优良水平, 在全国计划单列市中位居前列。1997 年厦门市城区空气污染指数(API)36。大气监测四项主要指标中: 二氧化硫、氮氧化物、总悬浮颗粒的年日均值均优于国家一级标准。

In 1997, the atmospheric environmental quality was sound, maintained at top level among the cities which have the power of independent economic planning. The atmospheric pollution index (API) of urban air of Xiamen Municipality was 36. Among four major parameters of atmospheric monitoring, the daily average concentration over the year for sulfur dioxide, nitrogenous oxide and total suspended particles were all better than those of Class I of State Atmospheric Environmental Quality Standard.

1997 年厦门市大气中二氧化硫、氮氧化物、总悬浮颗粒、降尘的监测结果如下:

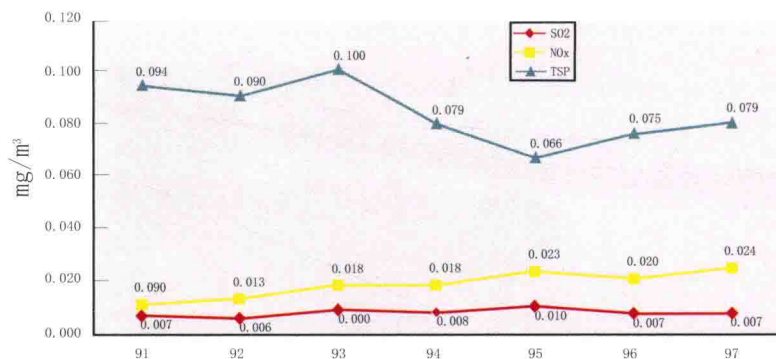
The monitoring results of sulfur dioxide, nitrogenous oxide, total suspended particles and dust deposition in 1997 were as follows:

	总悬浮颗粒物 Total suspended particles (mg/m^3)	二氧化硫 sulfur dioxide (mg/m^3)	氮氧化物 nitrogenous oxide (mg/m^3)	降尘 dust deposition ($\text{ton}/\text{km}^2\cdot\text{month}$)
样品数 sample number	629	773	770	128
最大值 maximum	0.356	0.057	0.103	9.80
平均值 minimum	0.079	0.007	0.024	3.93

1997 年城区平均降尘量为 3.93 吨/(平方公里·月), 未超过评价标准 (6.64 吨/平方公里·月), 比 1996 年下降了 1.30 吨/(平方公里·月)。

The average dust deposition over the urban area of Xiamen Municipality in 1997 was 3.93 tons/(month \cdot km^2), less than the impact assessment standard (6.64 tons/month \cdot km^2) and 1.30 tons/(month \cdot km^2) lower than that in 1996.

1991-1997年度厦门市空气质量图

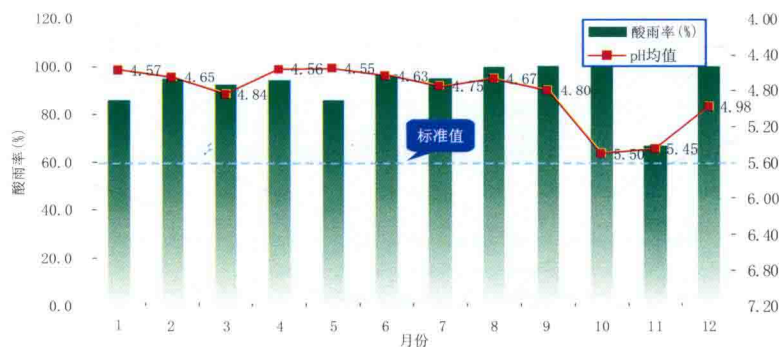


1997 年厦门市城区降水酸度 (PH 值) 年均值为 4.69, 比去年有所改善 (1996 年降水 PH 年均值为 4.16), 全年酸雨频率 93.8%, 与 1996 年相比上升了 10.3%。酸雨污染问题较为严重。

The average pH of the precipitation over the year in Xiamen Municipality in 1997 was 4.69 with some improvement compared with 1996 (the average pH of the precipitation over the year in 1996 was 4.16), the frequency of acid rain was as high as 93.8%, 10.3% increase than that in 1996. The acid rain pollution was serious.

1997 年各月降水 PH 值和酸雨率变化

Variation of pH and Rate of Acid Rain in Various Months in 1997



2.2 废气排放 Emission of Waste Gas

2.2.1 工业废气排放总量 Total volume of industrial waste gas

1997 年本市工业燃料煤用量为 108 万吨, 废气排放总量 189.4 亿标立方米。

The coal consumption by industries at Xiamen Municipality in 1997 reached 1.08 million tons, the total volume of waste gas came up to 18.94 billion cubic meters (STP).

工业废气中主要污染物排放总量如下:

The total amount of pollutants discharged from industrial emission were:

二氧化硫	22801 吨	sulfur dioxide	- 22,801 tons
烟尘	3513 吨	soot and dust	- 3,513 tons
工业粉尘	618 吨	industrial dust	- 618 tons



2.2.2 机动车尾气 Mobile Exhaust

1997 年全市机动车拥有量为 15.4 万辆, 其中岛内汽车在用数为 36672 辆, 比 96 年增加 10.8%。岛内汽车年检数 35109 辆, 尾气年检达标率为 90%; 路(抽)检数 3003 辆, 尾气达标率为 62%。

There were 0.154 million motor vehicles, among which 36,672 mobiles were driving inside Xiamen Island proper, 10.8% increase than 1996. There were 35,109 mobiles which were inspected inside Xiamen Island, rate of mobiles passed annual exhaust examination was 90%; 3,003 mobiles were randomly monitored for exhaust on the road and 62% met the exhaust standard.

2.3 主要控制对策 Major Control Measures

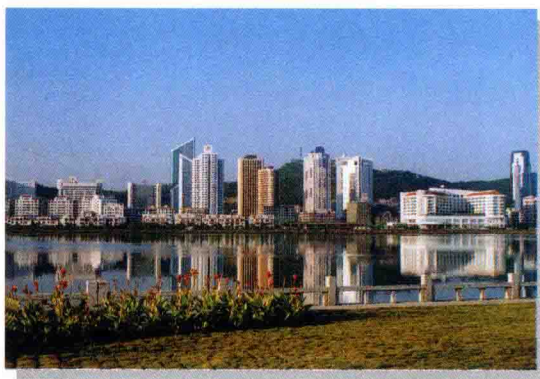
近年来厦门市建成区增加的面积主要在岛内东北部, 在新增的建成区范围内没有新增锅炉, 且随着优化燃料结构、燃煤锅炉改油炉的进程, 全市的燃煤量逐年降低。在扩大建成区的同时市政府很重视绿化工作, 建成区绿化覆盖总面积由 1996 年的 21.6 平方公里扩大到 1997 年的 23.2 平方公里, 绿化覆盖率也由 1996 年的 35.3% 增加到 1997 年的 35.4%。同时, 有计划地把工厂从居民集中区和风景名胜区搬迁出去。1997 年继续贯彻厦环保字 [1996] 082 号文《关于加强机动车排气污染监督管理的通告》的精神, 加强了对机动车尾气的路检工作, 对路检不合格者发放限期整改通知书, 强制安装空气净化装置。

Since the new built urban areas of Xiamen City located mainly in northeast of Xiamen Island, there was no installation of new boiler using coal and the change of fuel and transform of coal boiler to oil boiler, coal consumption was gradually reduced in the past few years. The Municipal Government paid great attention to greening while expanding urban built areas, the greened areas at built urban parts was increased from 21.6 km² in 1996 to 23.2 km² in 1997, the greening rate from 35.3% in 1996 to 35.4% in 1997. At the same time, factories locating in areas of residential quarters and scenic areas were moved out step by step. Road survey of motor vehicle exhaust was strengthened in 1997 according to the stipulations of "Notice Concerning Superintendence and Management of Motor Vehicle Exhaust Pollution" issued as the No. 82 document of Xiamen Environmental Protection [1996]. Letters were sent to people whose vehicles could not meet the requirements of exhaust standards to ask them to carry out rectification within fixed time, in addition compulsorily installation of exhaust cleaning facilities was implemented.



3 水质状况

Status of Water Environment



3.1 水环境质量 Water Environment Quality

3.1.1 饮用水源 Drinking Water Resources

我市饮用水来源于北溪引水与坂头水库。北溪引水源头水质除大肠菌群外均符合地面水Ⅲ类标准；坂头水库水质保持良好，符合地面水Ⅱ类标准。以城市环境综合整治定量考核中饮用水源水质的14个项目来评价，厦门市饮用水源水质达标率为97.2%。

The drinking water resources of Xiamen Municipality mainly come from Beixi Water Diversion Engineering and Bantou Reservoir. The water quality of original water for Beixi Water Diversion engineering (Jiulongjiang River) met Class III standards of surface water quality except for *Escherichia coli*. Water quality of Bantou Reservoir was good and met Class II standards of surface water quality. When evaluated based on 14 water quality parameters for Drinking Water quality set as Quantitative Appraisal of Integrated Mitigation of Urban Environment, 97.2% samples met the requirements of water quality standard.

3.1.2 水库 Reservoirs

经过一年多的全面综合整治，湖边水库水污染综合指数从1996年的16.41下降为9.47，水质比去年有了很大的好转，目前湖边水库水质达到地面水Ⅳ类标准。杏林湾水库水质达地面水Ⅴ类标准，水体富营养化，主要超标项目为五日生化需氧量、非离子氨等八个项目。

Water quality of Hubian Reservoir has been much better than last year as indicated by the reduction of multi-pollution-index for water quality from 16.41 in 1996 to 9.47 in 1997 as the results of comprehensive rectification and mitigation activities in the past year, the water quality of Hubian Reservoir now met Class IV of surface water quality standards. Water quality of Xinlinwan Reservoir fell in Class V of surface water standards, the major items of water quality were eutrophication and that 8 parameters including BOD₅ and non-ion ammonia exceeded the standards.



3.1.3 九龙江河口

Jiulongjiang River Estuary

九龙江干流河口水质符合地面水Ⅲ类标准,但比去年同期有所下降。丰、平水期溶解氧、五日生化需氧量、氨氮等项目出现超标。



Water quality of main stream of Jiulongjiang River Estuary deteriorated than last year and met Class III of surface water standards. Concentrations of dissolved oxygen, BOD5 and ammonium nitrogen at rainy and normal seasons exceeded the standards.

3.1.4 海域 Sea Waters

全市海域水质除无机氮、磷、大肠菌群外基本符合海水水质二类标准。无机氮、无机磷近三年来年均值呈递增趋势,海域主要污染因子仍是无机氮,67%的样品超过三类海水水质标准,平、枯水期海域还出现无机磷超标,个别海域有石油类超标现象。西港1997年粪大肠菌群数67%样品数超标(10^4 个/L),比1996年增加1倍多。1997年厦门岛周围海域环境质量比往年略有下降。

1997年鼓浪屿浴场水质基本保持良好,厦大浴场由于受到厦大生活污水影响,水质逊于鼓浪屿浴场。

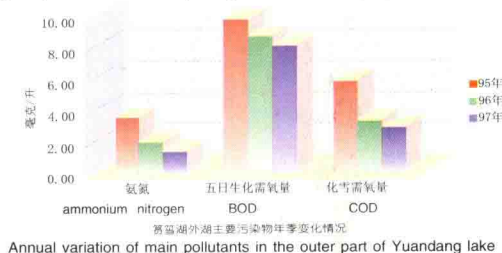
Sea water quality for Xiamen Municipality basically met the requirements of Class II of Sea Water Quality Standard except for inorganic nitrogen, phosphorus and Escherichia coli. The average concentration of inorganic nitrogen and phosphorus showed increase trends in recent three years, the major pollutant of sea water was still the inorganic nitrogen, 67% of the nitrogen samples exceeded Class III of Sea Water quality Standard, inorganic phosphorus exceeded the Standard too at normal and dry seasons, oil content of sea water at individual area exceeded the Standard. At the West Harbor, Escherichia coli of 67% samples exceeded the standard (1×10^4 ind./L), doubled than last year. Totally the water quality around Xiamen Island deteriorated than the past years.

Water quality at seaside resort of Gulangyu Island was basically good in 1997, while the water quality of seaside resort near Xiamen University was lower than that at seaside resort of Gulangyu Island due to the domestic effluent discharge from Xiamen University.

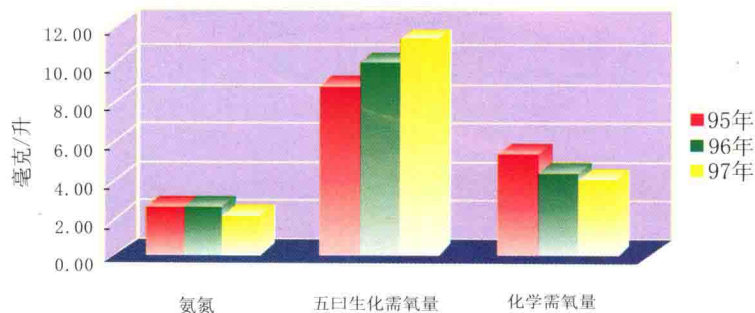
3.1.5 筼筮湖 Yuandang Lake

由于强化了筼筮湖的管理,近年来筼筮湖外湖水质主要污染物呈现下降趋势,水质明显好转;内湖水质也趋于好转。目前筼筮湖水质符合地面水Ⅳ类标准,氮、磷含量仍然较高。

Since the intensified management of Yuandang Lake, concentrations of major pollutants in water of outer part of the Lake were gradually decreasing and the water quality was clearly improved; water quality of the inner part of the Lake was also improving. At present, its water quality fell in Category IV of Surface Water Quality, level of nitrogen and phosphorus was still high.



筴筴湖内湖主要污染物年季变化情况
Annual variation of main pollutants in the inner part of Yuandang lake



3.2 废水排放 Waste Water Discharge

3.2.1 工业废水 Industrial Waste Water

1997 年全市工业废水排放量为 2953.15 万吨，其中达标排放量 1782.33 万吨，工业废水排放达标率为 68.0%。工业废水处理量为 3404.29 万吨，处理回用量 1892.33 万吨。

Industrial waste water discharge reached 29.5315 million tons, out of which 17.8233 million tons, i. e. 68.0% met the requirements of industrial waste water discharge standards, 34.0429 million tons of industrial waste water was discharged after treatment, a total of 18.9233 million tons of treated industrial waste water was reused.

工业废水主要污染物排放情况

Discharge of Main Pollutants in Industrial Waste Water

	化学 需氧量 COD	悬浮物 SPM	石油类 petroleum	挥发酚 volatile phenol	硫化物 sulfide	六价铬 Cr ⁶⁺	氰化物 cyanide	铅 lead
排放量(吨) amount discharged (ton)	3889.86	1346.26	9.64	0.58	0.28	0.12	0.12	0.02
等标污染负荷比(%) equivalent pollution load ratio(%)	63.6	8.80	6.30	18.96	0.92	0.92	0.39	0.13



3.2.2 生活污水 Domestic Waste Water

1997 年全市生活污水排放量为 4202 万吨。城市污水处理率 52.55% ,与 1996 年的 35.7% 相比增加了 16.85% 。

The volume of domestic waste water amounted to 42.02 million tons, 52.55% of which was treated, 16.85% increase as compared with 1996, when 35.7% was treated.

3.3 主要控制措施 Major Control Measures

1997 年厦门市环保局加大了执法力度,对重点污染源限期治理,绿泉实业有限公司、同安啤酒厂等一批重点废水处理工程投入运行;整顿“十五小”企业,对筭筭湖周围工厂的环保设施运行情况进行检查。把好审批关,严格执行“三同时”制度,控制新污染源。治理湖边水库,编制水库保护区规划,实施污水截流工程,限期治理污染湖区的工业企业,清除库区违法建筑。进一步加强了对环境基础设施建设的投入,加快城市污水处理厂建设,海沧污水压力管道竣工并通过验收,新阳泵站竣工并投入使用,以及筭筭湖南岸污水截流工程建设等。

In 1997, the Environmental Protection Agency of Xiamen Municipality strengthened law enforcement, carried out mitigation and rectification by fixed time on key pollution sources, waste water treatment facilities at Luquan Industrial Corp. Ltd., Tong'an Beer Plant et al were put into operation; "Fifteen - Small - Type factories" were reorganized, superintendence and survey were implemented on environmental protection equipment of factories around Yuandang Lake. The system of "Three - Synchronous - Measures" was strictly implemented through serious examination and approval processe so as to control new pollution sources. Rectification was implemented on Hubian Reservoir including formulation of plan for reservoir protection park, completing of waste water reception project, ordered rectification and mitigation of factories polluting the Reservoir by fixed time, demolishing of the unlawful constructions around Reservoir areas. More fund was allocated for construction of environmental protection infrastructures to speed up development of municipal sewage plant. In this field great achievements were realized such as the pressed sewage pipelines at Haicang Zone, which has been finished and passed the appraisal, Xinyang pumping station was finished and brought into service as well as waste water reception engineering at south bank of Yuandang Lake.



4 声环境状况

Status of Noise Pollution

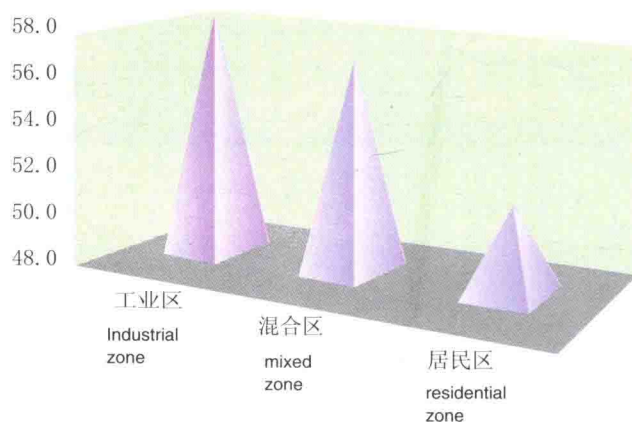


4.1 区域环境噪声 Environmental Noise Pollution of Different Zones

1997 年厦门市区域环境噪声平均等效声级为 56.5 分贝,比 1996 年下降了 0.1 分贝。各功能区噪声统计结果如下:

The averaged equivalent district noise in 1997 for Xiamen Municipality was 56.5 db, 0.1 db lower than that in 1996. For different functional zones, noise statistics was:

工业区	58.0 分贝	industrial areas:	58.0 db
混合区	56.4 分贝	mixed areas:	56.4 db
居民文教区	51.6 分贝	residential and cultural quarters:	51.6 db



厦门市 1997 年区域噪声统计
Statistics of District Noise of Xiamen City in 1997

4.2 交通噪声 Traffic Noise

1997 年,厦门市主要交通干道平均车流量 2094 辆/小时,城市道路交通噪声 69.7 分贝,比 96 年下降了 0.7 分贝,达到了国家规定的标准。在市区 19 条主要交通干线中,达标道段占道路总长的 58.1%,与 96 年的 29.1% 相比有较大改善。交通噪声污染较为严重的是疏港路、莲前路和南山路,分别达 73.5、73.3、73.2 分贝。