

**Jinan City's  
Construction Plan for the Building of  
“The United Nations Traffic Safety  
Pilot City”**



**People's Government of Jinan Municipality, China**

**Anhui Sanlian Accident Prevention Institute**

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## Preface

“Sino-Japan International Symposium on Public Health in the 21<sup>st</sup> Century” was together hosted by Anhui Sanlian Accident Prevention Institute and National Institute of Industrial Health of Japan in Hefei, the capital of Anhui Province, China from August 19<sup>th</sup> to 21<sup>st</sup>, 2004 . More than one hundred experts and scholars from China, Japan, Malaysia, America and other countries participated the symposium, and some officials from the Executive Office of the Secretary-General of the United Nations, the International Labour Organization and Sino-Japan Friendship Association, also attended the academic conference. During the period of the symposium, Mr. Frederick C. Dubee, senior adviser of the Executive Office of the Secretary-General of the United Nations, made an exploratory search of Anhui Sanlian Accident Prevention Institute. He spoke highly of important scientific and technological achievements which have been gained by the institute in the field of traffic accident prevention with more than 20 years’ effort, and he was especially interested in the integrated prevention and control system with “three lines of defence for road accident prevention”, which was initially proposed by Mr. Jin Huiqing, chairman of the institute. Mr. Dubee proposed that a “United Nations Traffic Safety Pilot City” could be built up in a provincial capital city. After Mr. Dubee returned to the headquarters of the United Nations, he provided this information to Ms. Kerstin Leitner, assistant director-general of the World Health Organization (WHO). Ms. Leitner also set much value on this work, and she made contact with Sanlian Accident Prevention Institute many times in person. She hoped that Sanlian Accident Prevention Institute could provide WHO with relevant materials, and help WHO promote this project and carry out the demonstration of such a Pilot City.

In regarding to the construction of the “United Nations Traffic Safety Pilot City”, we believe that Jinan City, the capital of Shandong Province, China, has its particular advantage and superiority. Thus we made such a draft on Jinan City’s construction plan for the building of “The United Nations Traffic Safety Pilot City” (in Chinese and English versions), and we will submit it to the People’s Government of Jinan **Municipality**, Public Security Department of Shandong Province and the World Health Organization.

## Chinese Jinan City's Construction Plan for the Building of "United Nations Traffic Safety Pilot City"

### 1. Concept of the United Nations Traffic Safety Pilot City

(1) **Definition:** It is proposed that leaders of various countries' local governmental organizations cooperate with traffic participants to set up a modern traffic safety city in which the traffic safety organizational system is regarded as the core; traffic participants' sense of traffic safety is regarded as the foundation; traffic safety prevention measures are considered as the safeguards and the improvement of traffic condition and low incidence rate of traffic accidents are considered as final goals.

- There should be an organizational mechanism with the cooperation of various departments and its purpose is to promote traffic safety.
- Traffic participants have new concepts of the prevention and control of road accidents.
- Traffic participants should behave in accordance with traffic laws and regulations.
- There should be an analytic system to monitor traffic accidents and analyze causes of the accidents.
- With regard to road traffic injury, there should be long-term sustainable projects to especially deal with this problem.
- The death rate per 10,000 vehicles should have a tendency of decrease year after year.
- The effectiveness of the prevention and control project of traffic injury can be assessed and evaluated.
- We should actively take part in international activities concerning traffic safety.

(2) **Nomination:** The United Nations will be responsible for the work of instruction, monitoring, assessment, nomination and introduction of the construction plan.

(3) **City to Carry Out the Plan:** Jinan, the capital of Shandong Province, will take charge of applying, organizing and carrying out the

construction plan.

## **2. The Advantage and Superiority of Jinan City**

**(1) Geographical Position:** Jinan is the capital of Shandong Province. It is the provincial centre of politics, economy, culture, science and technology, education, and finance. And it is a coastal open city granted by Chinese government. The total area of Jinan City is 8,178 square kilometres and its urban area covers 3,257 square kilometres.

**(2) Administrative Divisions:** It exercises jurisdiction over 6 districts (Lixia, Shizhong, Huaiyin, Tianqiao, Licheng and Changqing), 3 counties (Pingyin, Jiyang and Shanghe) and a county-level city named Zhangqiu. It comprises 54 subdistrict offices, 65 towns, 27 townships, 487 neighbourhood committees and 4,657 administrative villages.

**(3) De Jure Population:** By the end of 2003, the resident population of Jinan City has reached 5,826,000, and the natural growth rate is 2.08 ‰.

**(4) Road Traffic:** By the end of 2003, the traffic mileage of the whole city is 4,548.4 kilometres, and the highway density is 55.6 kilometres per 100 square kilometres. The number of the operation routes for passenger vehicles has arrived at 536 among which 121 routes cross Shandong Province; 172 routes cross Jinan City and the remaining 243 routes are in the area of Jinan City. 4 express highways (Tsiqing, Jingfu, Tsiliao, and Jinghu), 5 national highways and 16 provincial highways traverse Jinan City. And in the city there is a circular express highway.

**(5) Motor Vehicles:** There are 815,000 motor vehicles in the city, including 198,000 automobiles, and there's an increase of 200 vehicles daily. In the urban area, the number of passenger vehicles has reached 11,471; the number of motor trucks has arrived at 41,011 and there are 8,000 taxi cars.

**(6) Traffic Facilities:** The municipal government has begun to set up and improve its expert consultative mechanism concerning urban transportation problems. High-level traffic signals, road signs, marking lines and other high-tech traffic facilities have been installed on the roads of Jingshi Road, Jingqi Road and the like, and all traffic lights of old

types have been replaced by new types. The government encourages the development of parking buildings and multi-storey parking garages. Navigation display screens are being installed to guide drivers to park their cars, and the traffic polices are trying out parking meters to help the parking management. In addition, experts are making research on the application of luminous traffic signals by means of solar energy.

**(7) Traffic Management:** The municipal government of Jinan City will develop an Intelligent Transportation System according to the general guideline of “encouraging the development of buses, reducing the use of bicycles, putting restriction on the use of motorcycles, forbidding the use of three wheelers, and updating taxi cars”. From January 5, 2004 motorcycles have been forbidden to drive on 17 backbone roads, and passenger automobiles and motor trucks of micro-size or small-size have been forbidden to drive on 19 backbone roads.

**(8) Traffic Safety:** 1,031 road accidents occurred in Jinan in 2003, of which 456 persons were dead and 949 persons were injured. Its direct economic loss was 2,627,000 RMB, which is far below the sum of other capitals of Chinese provinces.

**(9) Investment in Science and Technology:** The municipal government of Jinan City lays stress on the work of traffic safety and continually increases the investment in traffic safety. At present it is making use of its five main systems to have an efficient allocation of its scientific and technological resources and helping to carry out “JinAn Project”, a project concerning traffic safety.

**(10) Outstanding Groups:** Jinan Traffic Police is an outstanding representative group of Chinese Traffic Police. The Ministry of Public Security awarded Jinan Traffic Police the title of “Model Unit of Chinese Traffic Police” in 1995; in the same year Mr. Jiang Zemin, the former chairman of China, made an inscription for them and the inscription is “Strict Law Enforcement, Warm-Hearted Service”. And the State Council granted them an honorary title of “Traffic Police with Strict Law Enforcement and Warm Service” in 1997.

### **3. Contents to Carry Out during the Construction**

**(1) To Establish a Leading Organization and a Working Network Which is Especially Responsible for the Traffic Safety of Jinan:** The People's Government of Jinan Municipality will set up a leading group to take charge of the traffic safety of Jinan. The group leader will be from the municipal government, and members will come from governmental departments of public security, transportation, construction, planning, education, health, safety production and so on. In the leading group, there will be a subordinate office, which is in the charge of Jinan Public Security Bureau. Experts from WHO and China who specialize in China traffic safety will be invited to act as consultants, and they will carry out their work under the business guidance of Public Security Department of Shandong Province, Ministry of Public Security of China and the World Health Organization. The government will establish a working network with residential districts and neighbourhood committees as the longitude lines and the scientific research centres, colleges and enterprises as the latitude lines.

**(2) To Make the Strategy and Action Plan of Jinan Traffic Safety Construction**

The traffic safety strategy needs the cooperation of governmental departments, enterprises, government-sponsored institutions, private organizations, mass media and traffic participants, and it also requires the cooperative participation of many experts who specialize in traffic safety, public health, planning and design, laws, computer engineering, communication engineering, etc. There should be a high-level strategy with a practical goal and the period needs to be 2 years to 5 years. And the effectiveness of the strategy should be measurable, and there should be sufficient financial support and various measures of the management, monitoring and evaluation. After the above consideration it is time to draw up the action plan and schedule of the traffic safety construction and make a specific allocation of available resources.

**(3) To Set Up Jinan Traffic Safety Information System**

The government will build up a traffic safety information system with the cooperation from the departments of public security, health, transportation, insurance and the like. Such a system will be set up to

collect and analyze static and dynamic traffic information, especially the information of high risk groups, time, local distribution and risk factors of the traffic accidents, the condition of accidental death and disability and their economic losses, the effectiveness of the intervening measures, the developing trend of the traffic safety and its corresponding strategies.

#### **(4) To Carry Out the Professional Staff Training on Jinan's Traffic Safety Construction**

We should give priority to this training project. A professional group will be established through different forms of domestic short-term training, going abroad for advanced study, talent introduction and so on. Training materials include teaching books on the prevention of road traffic injury provided by WHO, "Epidemiology of Road Accidents", "Prevention and Control Engineering for Road Accident" and other monographs.

#### **(5) To Carry Out the Plan of Developing Jinan Citizen's Traffic Safety Behaviour**

We should make a comprehensive analysis of the present situation of citizen's acts in violation of regulations and make corresponding Jinan traffic regulations and standards according to Chinese traffic laws and regulations. Under the support of the residential districts and neighbourhood committees, the plan needs the cooperative participation of schools, enterprises, social organizations and the whole citizens. We should lay stress on the traffic safety training for peasant-workers. The purpose is to improve the traffic safety sense of the citizen and change their inappropriate traffic behaviours.

#### **(6) To Carry Out the Education Plan of Traffic Safety for Jinan's Elementary and Secondary School Students**

China has begun to carry out the education for all-round development, and schools have already launched education on traffic safety, traffic laws and regulations. Based on the above experience, we will make and carry out the "Education Plan of Traffic Safety for Jinan's Elementary and Secondary School Students". The plan emphasizes on the cooperative participation of the schools, families, society and students. Education methods including classroom teaching, family education,

social practice and so on. The purpose is to develop people's sense of traffic safety when they are young.

### **(7) To Build Up Jinan Integrated Prevention and Control System with Three Lines of Defence for Road Accidents Prevention**

**The first line of defence —screening of safe drivers:** there's a fact that about 6—8% of Chinese present drivers are prone to road accidents. Drawing on Japanese, European and other developed countries' successful experience on the enforcement of the selection of drivers, we will make a selection of drivers with the qualification of traffic safety in all round based on the nation's "Requirements of Motor-Vehicle Drivers' Physical Qualifications and Measurement Standards (GB-18463-2001)". We will adopt the detection system of driving qualification to carry out the selection of eligible drivers and eliminate hidden risks of traffic accidents from the beginning.

**The second line of defence —training, check and evaluation of drivers' driving skills.** Automobile driving simulating system, automatic driving test system and other high-tech methods will be applied in driving schools which are ruled over by Jinan managerial departments of traffic safety and public security. The function of this defence line is to develop a scientific training and test of drivers and weed out old inefficient methods of drivers' training and test.

**The third line of defence —the control and improvement of traffic environment.** Along with the carrying out of "Integrated Warning and Monitoring Act of China" sponsored by the Ministry of Public Security of China and "JinAn Project" sponsored by Jinan Municipal Government, we will install modern managerial facilities of traffic controllers, security checkpoints, electronic police, accident survey and an integrated platform with the warning functions of 119, 122 and 110. And Jinan will be the first city in China equipped with the Vehicle Information and Communication System (VICS).

By means of VICS, experts will analyze and edit the information of traffic jam, driving time, traffic accidents, traffic control and the like provided by traffic management departments, and after the information processing, they will provide traffic participants with the above edited

information in the forms of characters, diagrams, digital maps and so on without charge. Under the guidance of scientific traffic navigation, it will be easier for drivers to select an appropriate route and reduce the driving time. And such an integrated project can ease up the effect of traffic jams on roads and express highways, reduce the number of traffic accidents, improve the traffic environment and raise the level of traffic safety management.

#### **(8) To Enhance Jinan's Reactive Capability and International Cooperation on Road Traffic Accident**

We will actively set up an international communication platform of information and technology. WHO will send experts on traffic safety to guide the execution of Jinan project. And experts and managerial staff of Jinan's relevant departments will be invited to attend international meetings sponsored by International Traffic Medical Association and World Road Association and other correlative international meetings on traffic safety. And at the same time we will in a positive way recommend and introduce Jinan project to FIA, Volvo Foundation, Rockefeller Foundation and other international organizations to promote the international cooperation and gain financial support.

#### **(9) To Establish a Measurement and Assessment System of Jinan Traffic Safety Condition**

Based on the experience on injury monitoring and its assessment, we will set up a Measurement and Assessment System of Jinan Traffic Safety Condition. According to the schedule of the strategy and action plan of Jinan's traffic safety construction, we will make a regular check and assessment of Jinan's traffic safety condition. The assessment indexes include the incidence rate of road accidents, the originating rate of responsible accidents caused by drivers with short driving experience, death rate per 10,000 vehicles, Disability-Adjusted Life Years (DALYs), the proportion of the economic loss to Gross National Product (GNP), etc.

### **4. Fund Raising**

According to the contents of this construction plan, we will set a sum of the aggregate investment. The ways of money mobilization

include the financial investment of Jinan Municipal Government, the investment from traffic participants, social sponsors, economic support from international organizations, etc.

## **5. The Schedule to Carry Out this Construction Plan**

April 7th of each year is designated as World Health Day and celebrated by the 191 member countries of the World Health Organization. The theme for World Health Day 2004, “Road Safety Is No Accident”, was chosen to highlight the fact that road injuries are preventable and road safety does not happen accidentally. And WHO announced the year of 2004 as Road Safety Year.

### **(1) The first stage (Start-up stage): December 2004---February 2005**

Anhui Sanlian Accident Prevention Institute will assist Jinan Municipal Government to make contact with relevant departments of the United Nations, draw up the application procedure, and submit the application of the construction of “United Nations Traffic Safety Pilot City”. And the United Nations will send specialists to make an on-the-spot investigation and propose their instructive construction frame.

### **(2) The second stage (preparatory stage): March2005---June2005**

We will establish the leading mechanism and working network of Jinan traffic safety construction during this period. And then the construction plan and the action plan should be set down.

### **(3) The third stage (Implementation stage): July2005---July2007**

**a) Software Construction:** personnel training, expanded definition of traffic safety behaviours, traffic safety education for middle school students and primary school pupils, the construction of information system, international cooperation, financial support, etc.

**b) Hardware Construction:** On the basis of the traffic safety work done by the country’s Ministry of Public Security and Jinan Government, Jinan integrated prevention and control system with three lines of defence for road accident prevention will be built up in the round. Jinan will be the first provincial capital to initiate Vehicle Information and Communication System (VICS).

**(4) The fourth stage (examination stage):  
August2007--October2007**

On the basis of Jinan's self-investigation and self-assessment and according to the standards and cooperative agreements on "The United Nations Traffic Safety Pilot City", the United Nations will send experts to make a thorough assessment and evaluation of Jinan's traffic safety project and thus make a written report.

**(5) The fifth stage (the stage for nomination and recommendation): November2007---December 2007**

During this stage, the United Nations will officially designate Jinan City as "The United Nations Traffic Safety Pilot City", and it will introduce and promote such a "China Jinan Mode" throughout the world.

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