

Towards an Effective Guarantee of the Green Access
Pollution: Revitalization of Polluted Areas

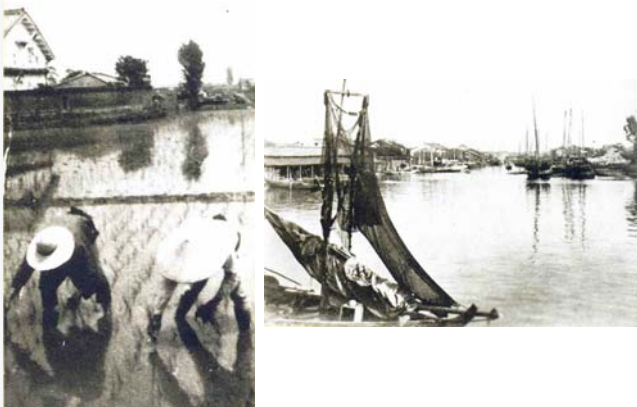


March 30, 2013
Itaru Fujie, Aozora Foundation

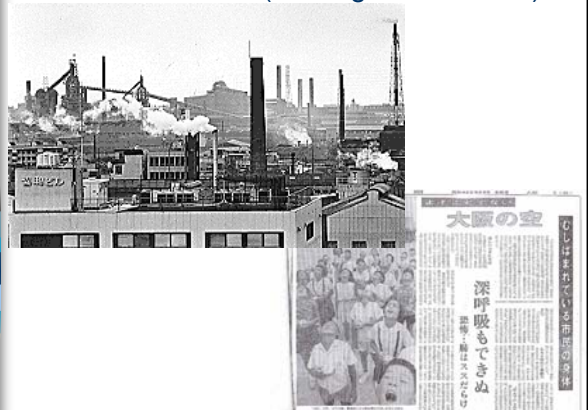
Location of Nishiyodogawa Ward, Osaka



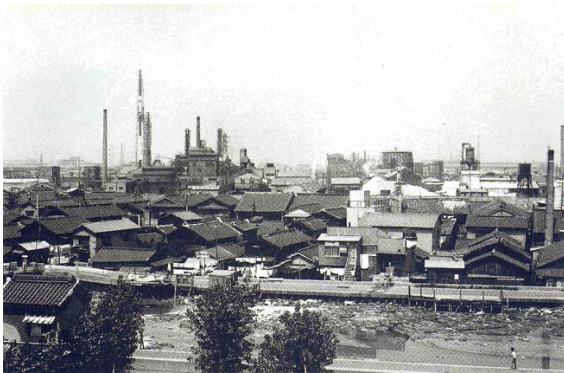
Scenes from the 1920s-1930s: Rice field, fishing village



Air pollution becomes a serious problem
(starting in the 1960s)



Ono River turns into a polluted canal (1970)



Overview of legal action against pollution in
Nishiyodogawa

- April 20, 1978: Case goes to court
- Plaintiffs:
 - First group: 112 (1978)
 - Second group: 470 (1984)
 - Third group: 143 (1985)
 - Fourth group: 1 (1992)
 - Total: 726
- March 1995
Settlement with nine defendant companies
- July 1998
Settlement with national government and Hanshin Expressway Public Corporation (HEPC)
- Provisions of settlement: The national government and HEPC shall work to implement measures to improve the environment along the roads and build a pleasant living environment.

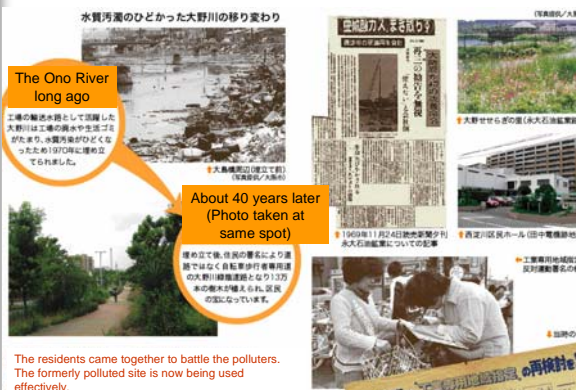
Location of
accused companies



公害 みんなで力をあわせて

Patients
(pollution victims)

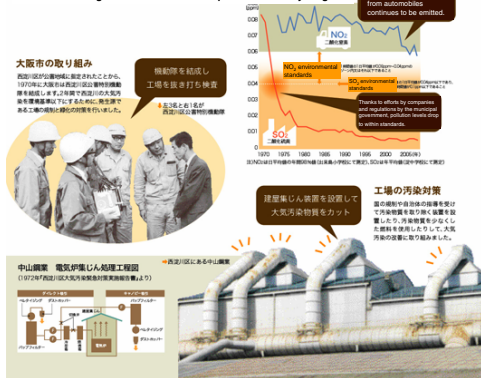
Disease: Continuous suffering

[illegible]

Local companies

Companies improve pollution-prevention technologies in order to exist in harmony with citizens.

Change in concentration of air pollution in Nishiyodogawa



Lawyers

Lawyers make it through the difficult trial.

Academics

Academics demonstrated the mechanisms of pollution.

"Government finally takes action after doing nothing during the 20 years of the trial"

Building a theory so that a pollution-free society can be created to protect the weak.



Environmental measures in Nishiyodogawa following the settlement

Meeting of road liaison committee

→ Nishiyodogawa Road Environment Measures Liaison Committee formed; plaintiffs, national government, and Hanshin Expressway Public Corporation meet to deliberate on pollution measures.



1. Improvements in road environment

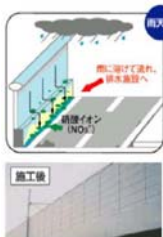
- ① Street corner improved
- ② Information signs put up
- ③ Number of lanes decreased in the Tsukuda district
- ④ Bus shelters put up and bicycle path built
- ⑤ Green belt established
- ⑥ Low-noise pavement laid
- ⑦ Scenery improved through beautification
- ⑧ Support for urban renewal provided based on the Act on Improvement of Areas Along Trunk Roads
- ⑨ Cooperative efforts conducted with related organs



[Above taken from documents of the Kinki Regional Development Bureau and the Hanshin Expressway Public Corporation.]

2. Taking new measures

- ① Using photocatalysts to purify air
- ② Using highly activated carbon fiber to purify air
- ③ Understanding the state of air pollution and other problems

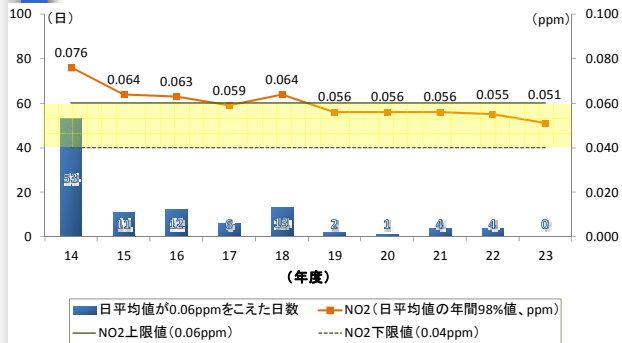


3. Other environmental measures

- ① Environmental road pricing
- ② Campaign to decrease traffic demand
- ③ Requesting vehicles take the Wangan Line Route 5 instead
- ④ Other environmental improvement measures

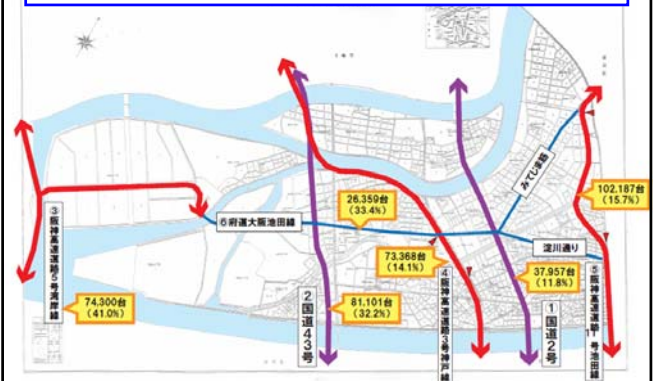


State of Nishiyodogawa: NO₂

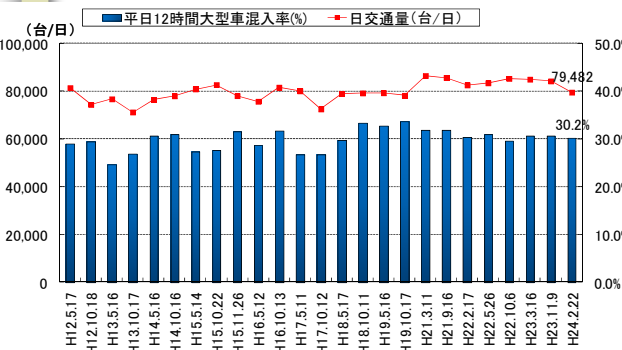


NO₂ levels will drop to within allowable environmental standards in all areas.

Problems range from factories to automobile exhaust
Traffic volume in Nishiyodogawa
(From fiscal 2005 road traffic census)

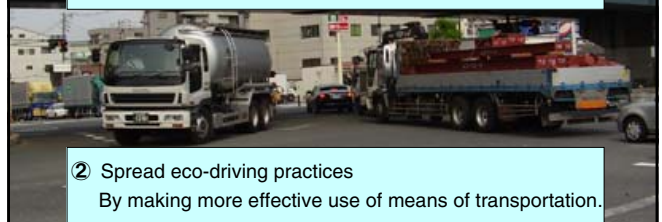


In recent years, there has been no change in the traffic volume or the percentage of large vehicles on Route 43.
◆How to improve the environment: Decrease the traffic volume of large vehicles



【Proposal 1】 Measures for large vehicles

① Measures to dramatically reduce large vehicle traffic on Route 43, the Hanshin Kobe Line, and the Ikeda Line
(By introducing restrictions on large vehicles and reducing the number of lanes)



② Spread eco-driving practices
By making more effective use of means of transportation.



Scenes on and around the roads

◆Bicycle path means safe riding for cyclists

【Proposal 2】 Roadside and traffic environment measures friendly to pedestrians and cyclists

① Boost measures for improving areas along trunk roads
(Air purification systems, roadside green areas, measures to reduce noise and vibration)

② Make the environment pleasant for pedestrians and cyclists to get around



The area near Nishiyodogawa High School

About PM_{2.5}

PM_{2.5} refers to particles floating in the air that are 2.5 micrometers in diameter and smaller.

Because these particles are so small, they enter deep into the lungs and are suspected of causing health problems.

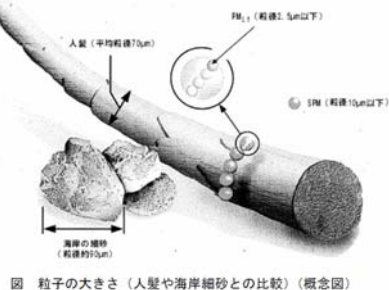


図 粒子の大きさ（人髪や海岸細砂との比較）（概念図）

【Proposal 3】 Take PM_{2.5} measurements and take action

Table: Measurement results of fiscal 2011

	年平均値 (μg/m ³)						24時間値 (μg/m ³ , 2%値外値)						測定方法		
	H17 年度	H18 年度	H19 年度	H20 年度	H21 年度	H22 年度	H17 年度	H18 年度	H19 年度	H20 年度	H21 年度	H22 年度			
① 大和田西交差点 (国道45号)	28.7	26.7	25.1	23.1	21.4	21.8	21.1	56.0	57.2	58.8	46.4	44.3	53.6	45.8	β線吸収法
② 新島橋交差点 (国道2号)	—	—	29.6	26.0	24.9	27.1	21.5	—	—	67.9	48.1	47.9	62.1	44.3	β線吸収法
③ 新島公園前 (国道2号)	26.1	25.6	23.5	20.7	20.9	21.2	21.2	56.7	58.0	65.5	43.1	43.9	49.8	41.7	β線吸収法
④ 出来島小学校 (国道45号)	23.8	22.5	20.4	19.1	17.6	16.3	18.4	48.9	50.2	49.8	38.5	39.7	40.4	41.3	TEOM法
日本（環境基準）	15						35								
基準（環境基準）	15						35						標準測定方法		
WHO（ガイドライン）	10						25						—		

■ Environmental standards, as well as environmental standards of the World Health Organization (WHO) and the Environmental Protection Agency (EPA) of the United States.

→ Measurement systems must be made stricter so that measured values will drop to within environmental standards.

【Proposal 4】 Agreement reached with citizens on construction to improve the Utajimabashi corner

- ① Not all citizens agreed with the plan to eliminate crosswalks.
- ② The government should study the effect of eliminating the crosswalks and, with the agreement of citizens, look into the pros and cons.
- ③ Carry out the planting of green areas around the Utajimabashi corner, as was promised to the plaintiff group.



About the Aozora Foundation



☺ Established: September 11, 1996

☺ Official name: Center for the Redevelopment of Pollution-Damaged Areas in Japan

☺ The Aozora Foundation was established using part of the monetary settlement from the legal action against pollution in Nishiyodogawa.

■ We want to pass on blue skies to our children (Dream for redevelopment plan, created by pollution victims: 1991)

We want to give future generations a town of rivers, islands, and greenery.

Nishiyodogawa redevelopment plan; proposed by pollution victims




The Aozora Foundation continues to work towards making this dream a reality.

■ Redeveloping Pollution-Devastated Areas

- Redeveloping pollution-devastated areas involves more than just rehabilitating, creating, and conserving the natural environment. It is accomplished by efforts including the recovery and improvement of local residents' health; recovery and nurturing of community functions damaged by economics-first development; and rebuilding trust and partnerships among administrative authorities, businesses, and local residents. This requires the cooperation of municipalities, businesses, and the rest of society's actors under the principle of "cooperation" as proposed in the Basic Environment Plan, and from the citizens' standpoint.

Work of the Aozora Foundation

- 1 Develop pollution-free communities
- 2 Relate the experiences of severe pollution
- 3 Learn about nature and the environment
- 4 Make life worthwhile for pollution victims
- 5 Come together



Let's rediscover our neighborhood.

A group of students and a teacher are gathered around a table in a classroom, working on a project. The students are focused on their work, and the teacher is providing guidance. The classroom environment is visible in the background, with posters and educational materials on the walls.

Local Walking Map (Published 1997)
Make Our City Green Again (Published 2000, by Gakuhei Shuppansha)

☺ Rape blossom project

© cyclists project

② Relate the experiences of severe pollution

The Nishiyodogawa Library on Pollution and the Environment (an eco-museum);
opened in March 2006

☺ Storing and making use of documents on pollution problems
Since 1996

😊 Creation of a network

☺ Victims of pollution speak

😊 Creation of teaching materials for use at schools

③ Learn about nature and the environment

☺ Survey of the walking path
along the Ono River
2004

☺ Looking for wildlife on the
Yagura seacoast
2004

What do you like about the nature path?

Can you see any wild birds?

Students try measuring air pollution in their neighborhood

☺ Citizens learn about the environment along the roads
Since 2003



☺

③ Learn about nature and the environment



☺




☺ Pool exercise class Since 2002



☺


④ Make life worthwhile for pollution victims

☺ Survey of life of senior citizen pollution victims
Since 2002



☺ Aozora Project
→ Find and support victims who have not been officially certified as victims of pollution.


☺ Exchanges with environmental NGOs in other parts of Asia
Since 1998



☺

⑤ Come together

☺ Hosting legal trainees from Korea
Since 2001



■ What is needed to redevelop polluted areas

公害地域の再生のために

Confirm the current situation
公害や地球温暖化など、原因と対策について知る

Create a partnership
行政・企業・市民がお互いの立場を認め合い、情報交換して地域を作っていきます

Can build a sustainable society with no pollution

Pollution
 Global warming
 Government
 Citizens
 Companies

■ Environment, energy, and nature exist in harmony
 ■ Health, welfare
 ■ Culture, history
 ■ Education, child-raising
 ■ Central urban areas, local industry
 ■ Lifestyles, community
 ■ Others

Critical points

