

## Front-page (封面) :

Environmental Conservation and Internally-Inspired Development  
环境保护和内部激励的发展

"ASAZA Project"-Strategy for Establishment of a Sustainable Society in the Lake Kasumigaura Catchment Basin  
ASAZA 项目一在霞浦湖领域建设可持续型社会的战略

Great Reed Warbler	大苇莺	Little Grebe	角鸬鹚
Whooper Swan	天鹅	Cuckoo	布谷鸟
Bean Goose	豆雁	White Stork	白鹤
Crane	鹤	Japanese Crested Ibis	朱鹮

In 10 (20, 30, 40, 50, 100) years 10 (20, 30, 40, 50, 100) 年内

Spread of reed fields 芦苇田的展开  
The shore lined with willow trees 湖岸边的柳树带  
The spread of a lush vegetation zone 茂盛植物区域的展开

Forest	森林	Paddy field	稻田
Reservoir	贮水池	Lake	湖

Looking ahead to the coexistence of nature and humankind in the 22<sup>nd</sup> century  
22 世纪人类与自然共存的展望

Nonprofit Organization ASAZA Fund 非盈利组织 ASAZA 基金会

## Back page (封底)

In 1000 years 1000 年内 Kappa 河童

Lake Kasumigaura Revival Project 霞浦湖复苏项目

Uniting Lakes, Forest, and People 湖泊, 森林与人的共存

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### Fig 1. Distribution and profile of lake Kasumigaura

霞浦湖的地理位置及其轮廓

Ashio Mountains	足尾山	Lake Kasumigaura	霞浦湖
Kitaura area	北浦	Nishiura area	西浦
Watarase Reservoir	渡良濑	Tone River	利根河
River sluice gate	水闸		

Category	种类	Item	项目	Unit	单位
Lake	湖	Catchment area	集水区域		
Origin	起源	Inland sea	内陆海		
Maximum depth	最大深度	Average depth	平均深度		
Surface area	表面积	Shoreline	水岸线		
Volume	容量	Average water turnover	平均湖水更新		
Elevation	海拔	Municipalities in catchment area	流域城镇		

Municipalities bordering the lake	湖滨城镇		
Catchment area population	流域人口		
Average annual rainfall	平均年降水量		
Average annual outflow	平均年失水量		
Billion t	10 亿吨	Approx 约	cities,towns,villages 市镇村

(Average annual volume of water about 2.82 billion m3)

平均年降水量为 28.2 亿立方米

(Average annual outflow ratio 49%)

平均年失水率为 49%

### Fig 2. Change of the Lake Kasumigaura shoreline

霞浦湖湖岸线的变化

Natural lakefront	天然的湖岸	Concrete Revetment	混凝土堤岸
Emergent plant community	自然植物群落		
Floating-leaved plant community	浮游植物群落		
Submerged plant community	水生植物群落		
Bank	湖堤	Original surface	原始土表

### Fig 3. The liaison flowchart of public works by community members

社区成员公共事业的联系流程

Universities and research institute	大学和研究所		
Fisheries cooperative	渔业协会	Companies	企业

Agricultural Organization such as To chi ka i ryo ku (Group of farmers for improving the land condition)  
农业组织如土地改良农民团体

Consumers' cooperative 消费者协会                      Community members 社区成员  
Schools 小学校                      Municipalities in the catchment area 流域所辖城镇  
Forest owners Forestry Association 森林拥有者林业协会  
Kasumigaura brushwood fascine association 霞浦湖杂木采集协会

Ministry of land, infrastructure and transport Kasumigaura construction office  
国土交通厅霞浦湖建设办公室

Citizens for improvement of lake Kasumigaura/kitaura 致力于霞浦湖/北浦改良的市民

Planning 计划                      Liaison 联系                      Cooperation 合作  
Public works 公共事业                      commissioning 代理                      support 支持  
Planning, administration and coordination 计划, 管理和协调  
Forest management 森林管理                      Management agreement 管理协议

Management of paddy fields, reservoirs fields, and canals  
稻田, 贮水池区域和运河管理

Supplying necessary materials 提供必需物资  
Participation in planning 参与计划  
Environmental education, comprehensive learning 环境教育, 综合学习  
Practice 实践  
watershed management, inflowing rivers 湿地管理, 流入河流

#### **Fig 4. Floating Heart Community Recovers Sand Beach**

杏菜 (ASAZA) 群落恢复沙地

Areas without floating heart 无杏菜 (ASAZA) 区                      High waves 大浪  
Areas with floating heart 杏菜 (ASAZA) 区  
Waves will be suppressed 波浪被缓冲  
Sand will accumulate beneath floating heart 杏菜 (ASAZA) 下沙子聚集  
Finally a sandy beach will be formed 最后形成沙地

#### **Fig 5. ASAZA Foster parent program**

ASAZA (杏菜) 培育流程

Gathering seeds 采集种子                      Recruitment of Foster Parent 培育者的募集  
Bringing up the plants 播种                      Germination 萌芽  
Spring 春天                      Summer 夏天

Floating Hearts will be planted	种植 ASAZA (杏菜)
A sand beach will be developed	沙滩的形成
Snipe and Plovers	沙锥鸟和水喜鹊
A reed field will be developed	芦苇丛的形成
Reeds and willows will be planted	种植芦苇和柳树
Many kinds of wildlife will return	多种野生生物的复归

**Fig 6. Restoring the diverse plant community along the lakeshore**  
湖滨多种植物群落的恢复

Reed 芦苇	Brushwood breakwater 杂木防波堤
Planting Floating Heart 种植杏菜	
Brushwood breakwaters eliminate waves 杂木防波堤缓冲波浪	
Formation of Floating Heart Community 杏菜 (ASAZA) 群落的形成	
Diverse Plant Community 多种植物群落	

**Fig 7. Forest conservation linking the lake-reviving project**  
与湖泊复苏项目关联的森林保护

One-day lumberjacks 一日伐木工人	Forestry Association 林业协会
Thinned wood 间伐材	Utilization of coppices 矮丛林利用
Kasumigaura Brushwood Fascine Association 霞浦湖杂木采集协会	
ASAZA Foster Parent program ASAZA 培育项目	

Fisheries Cooperative and Ministry of Land, Infrastructure, and Transport  
渔业协会和国土交通部

Brushwood Breakwater 杂木防波堤	Planting Floating Heart 种植杏菜
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**Fig 8. The ASAZA Project Cyclical System**  
ASAZA 项目循环系统

Logs and Brushwood from Thinning for Forest Conservation

森林保护间伐得到的圆木和杂木

Brushwood 杂木	Brushwood Fascine Association 杂木采集协会
Forestry Promotion 林业推广	Embankment 防护堤
Brushwood Breakwater 杂木防波堤	

ASAZA Foster Parent Program at schools and companies  
学校和企业中的 ASAZA 培育项目

Floating Heart Planting Session ASAZA (杏菜) 种植活动

Deterioration of *Satoyama* Forest 村落山林的恶化 Wastes 废弃

ASAZA Project ASAZA 项目

Conservation of headwaters (reviving Yatsuda [fields located along valley rivers])  
水源保护 (谷津田 [位于河谷的土地] 复苏)

Growing higher value-added rice (e.g. Sake Rice) 种植高附加值大米 (如酒米)

Reservoirs (Biotope) 水库 (生态场所)

Paddy field (Eco-friendly Agriculture) 稻田 (生态农业)

Coffee Bean Bag (Supplied by local businesses) 咖啡豆包 (当地企业提供)

Sand bag 沙包 Waterway 水道

Pulled-up Reeds and Cattails 芦苇和猫尾草的生长

Reed field recovery project 芦苇田的恢复计划

Lake 湖 Developing Local Sake 发展当地酒业

Local specialties, promotion of local industries 当地特产, 并促进当地产业发展

Agriculture Promotion 促进农业发展 Fishery Promotion 促进渔业发展

### Fig 9. Previous lakesides survey by children

儿童调查的昔日湖畔景色

### Fig 10. Planning and Restoration of the Vegetation Zone at Lake Kasumigaura by Community Members

社区成员进行霞浦湖植物生长区的规划和恢复

Planning 计划 Elemental School 小学校 Classes 班级

Listening to old persons 向老人调查 Drawing pictures 画图

### Working Together 共同行动

Gathering of Japanese Pampas Grass Seed 芒草种子的收集

Separating the reeds of Floating Heart from the biotopes 把模拟生态场所的芦苇和杏菜 (ASAZA) 分开

Rearing at home 家中培养 Rearing at school 学校培养

Planting 种植 Revival of the Lake's Wildlife 湖泊野生生物的复归

### Fig 11. Monitoring the schools surrounding environment in the Biotope

在模拟生态场所调查学校周围环境

Who comes to our biotope? 什么会来到我们的模拟生态场所?

Reservoirs, Grassland 水库, 草地 Forest, Reservoirs 森林, 水库

Forest 森林 Paddy Field 稻田 Stream 溪流

### Fig 12. Online Network with Local Schools and University/Research Institutions

当地学校和大学/研究所的在线网络系统

University	大学	Monitoring Data	调查数据	Database	数据库
High School	高中	Junior High School	初中		
Elementary School	小学校	Kinder garden	友善花园		
School Biotope Mailing List		学校模拟生态场所表			
ASAZA Kids Website		ASAZA 儿童(子)网站			
ASAZA Fund Website		ASAZA 基金会网站			

### Fig 13. The Distribution of School Biotopes in the Lake Kasumigaura Basin

霞浦湖流域学校模拟生态场所的分布

The Pacific Ocean	太平洋	Tone River	利根河
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### Fig 14. The Liaison of the Upstream and Downstream Regions by Utilizing Reeds

通过芦苇的利用将上游区域和下游区域联系起来

Ashio Mountains	足尾山	Oligotrophication	富营不良化
Nutrients	养分	Eutrophication	富营养化
Reed Screen Makers	芦苇帘制造者		

### Fig 15. Watarase River Watershed Management under the Community/Public Coalition

社区/公共联合下的渡良濑河湿地管理

#### Ashio 足尾

Enhancing Forest Revival Activities to Reinforce Flood Control 扩展森林恢复活动到强化水灾控制

Forest Revival Based on Conversation Ecology 基于生态保护的森林恢复

Forest Management Office 森林管理办公室

Government Greening Works (Using Reed Screens) 政府绿化活动(用芦苇帘)

Watarase River Construction Office 渡良濑河建设办公室

School Greening Activities 学校绿化活动

Comprehensive Learning at School 在校综合学习

Tone River Upper Reaches Work Offices 利根河上游工作办公室

Ministry of Land, Infrastructure, and Transport 国土交通部

Greening Action School Trip (Eco-Tourism) 参观绿化行动学校(生态游)

NPO-Initiated Compost Producing Project (Using Harvested Green Reeds)

非盈利组织主导的堆肥制造项目(利用收获的绿芦苇)

**Raw Garbage Composting Project** 生垃圾堆肥项目

**Cooperation among the NPOs in the Upstream and Downstream Regions**  
上, 下游区域非盈利组织的合作

**Reed Screens and Seedlings** 芦苇帘和幼苗

-Collecting Acorns and Seeds 采集橡子和种子

-Greening Activities Using Reed Screens and Seedlings 用芦苇帘和幼苗的绿化活动

**Acorns and Seeds** 橡子 和种子

**Cooperation among Schools (Between Upstream and Downstream)**  
学校的合作 (上游和下游)

**Public Works Project facilitating the Circulation of Goods, Personnel, Jobs, and Money among the Upstream and Downstream parts of the Water System**

公共事业项目促进水域系统上, 下游间物资、人员、工作和资金的循环

-Making reed Screens 制造芦苇帘

-Nursing Seedlings 培育幼苗

-Conserving Reed Fields 保护芦苇田

**Watarase Wetland** 渡良濑湿地

-Formulation of the Wetland Revival Program (Study on the Soil-Buried Seeds at School Biotopes)

湿地复苏项目的构成 (学校模拟生态系统土壤中埋的种子的研究)

-Reed Screen for Greening 绿化用芦苇帘

-Compost for Greening (Made from Harvested Green Reeds) 绿化堆肥 (由收获的绿芦苇得来)

-Nurturing Seedlings for Greening 培育绿化用幼苗

-Firebreak Management 防火管理

**Conserving reed Fields Based on Conservation Ecology Fostering Local Industries**

基于生态保护的芦苇田维护培育了当地企业

**Watarase Future Fund** 渡良濑未来基金会  
**School Network** 学校网络

**Reed Association** 芦苇协会  
**Research Institutes** 研究机关