



# Growing Trend Towards Rice Paddy Biodiversity Enhancement since Ramsar Rice Paddy Resolution X.31

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**Co-Representative, Ramsar Network  
Japan**

# Contents

- Background and activities towards adopting Rice paddy resolution of Ramsar
- Rice paddy resolution of Ramsar( X.31), 2008 and decision of CBD( X/34),2010.
- Strategy towards 2020 under UN Decade of Biodiversity
- RiceBED Project connected to UNDB and Aichi Biodiversity Targets.



# WHY RICE PADDY? (1)

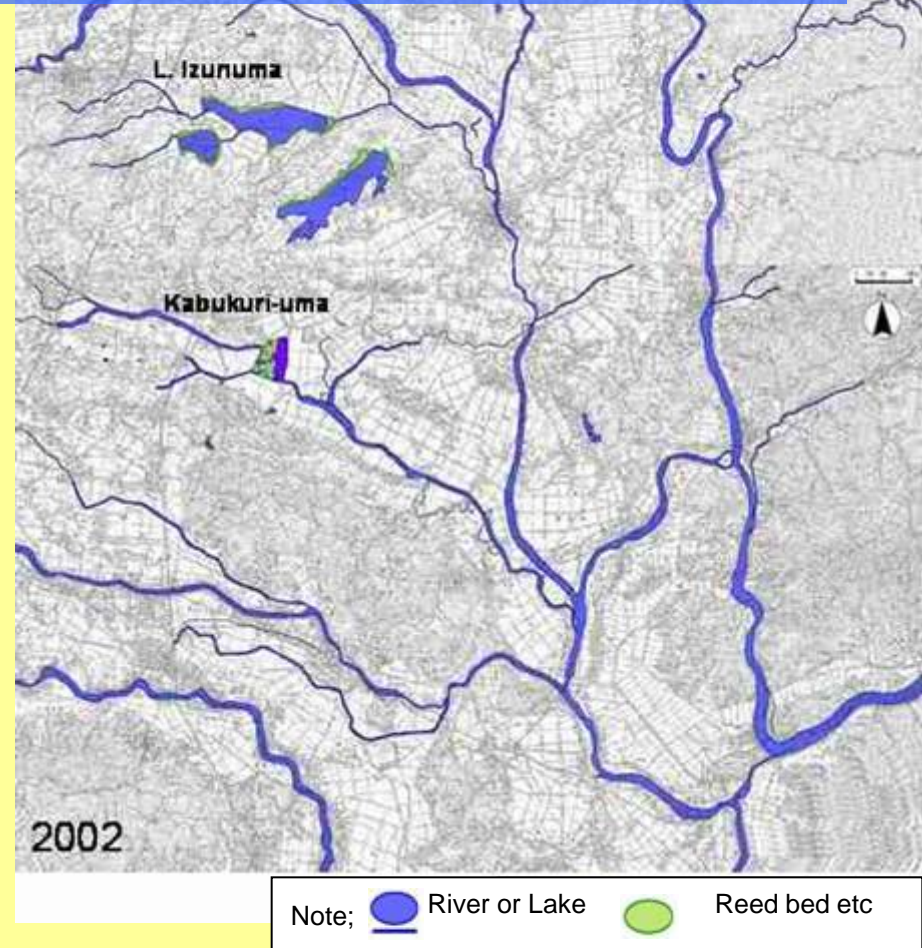
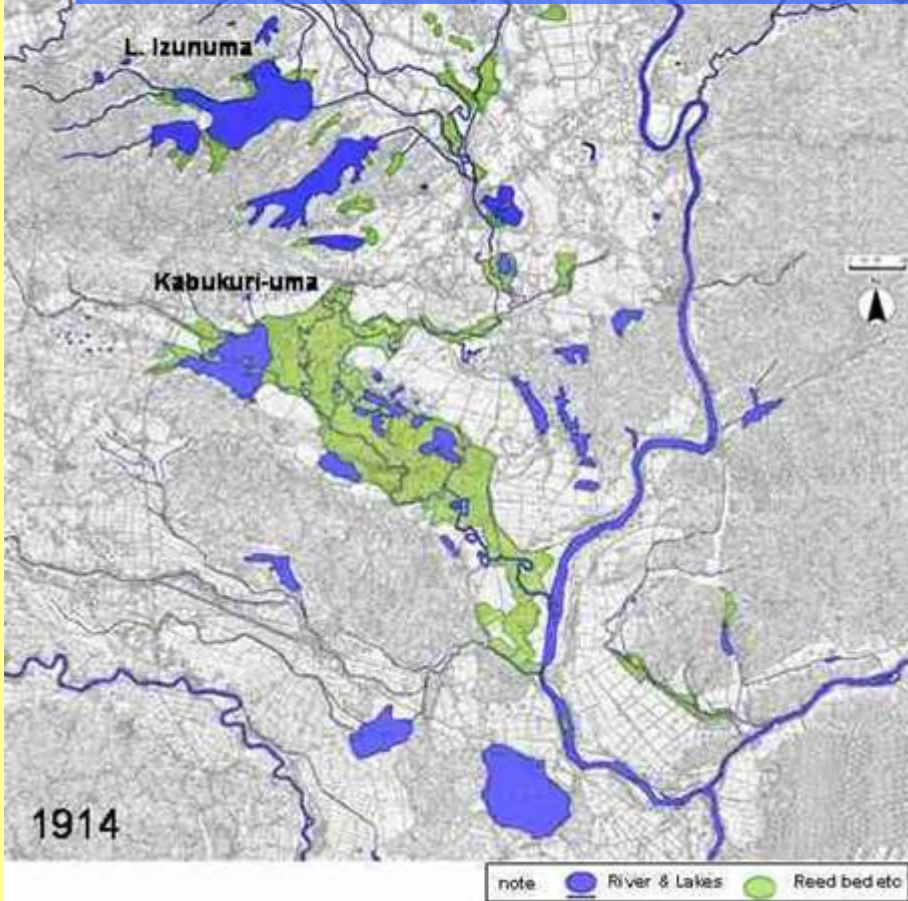
## NEGATIVE Background

- Critical decrease of wetland habitat over the past 100 years.
- Many Natural wetlands have changed to Rice Paddy
- Change of quality of rice paddy ; Wet to Dried

## POSITIVE Background

- History of sustainable use for thousands of years.
- Possibility of restoring or recovering to wetlands using working rice paddies, typical Asia-origin agro-wetland.
- Recognized as a type of wetland by Ramsar Convention
- Good case studies of Agro-Environmental Rice Farming ; Winter Flooded Rice Paddies project.

# More than 60% of wetlands lost over 100 years in Japan



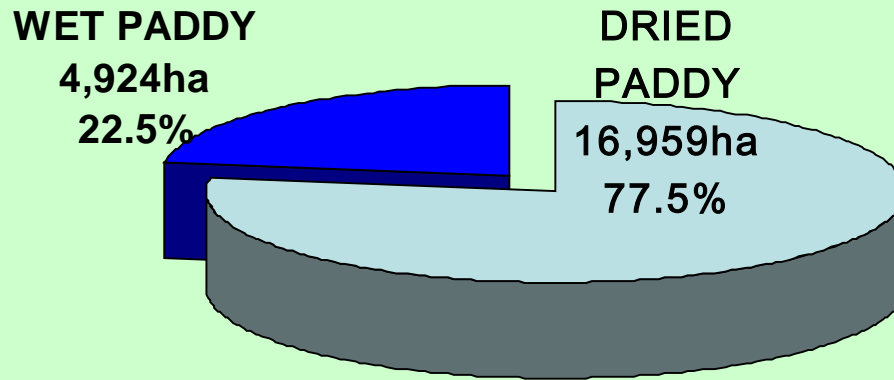
**Change of Wetland Habitat around Kabukuri-numa Marsh (1914-2002).**

(modified from Geographical Survey Institute data)



# New drainage system for easy drying rice paddy

Reconstruction of Rice Paddies  
in Miyagi pref. in 2000 ( Chiba, unpublished)



**Natural** Wetlands

→ **Wet** Rice Paddies (Old )

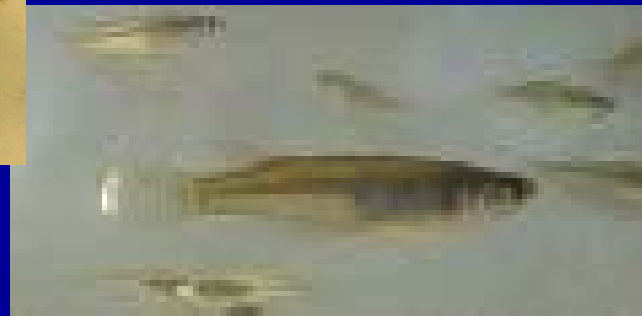
→ **Dried** Rice Paddies (New)

# Disappearing Wildlives Depending on Wet Rice Paddies



チュウサギ *Egretta intermedia*  
希少種

ニホンアカガエル *Rana japonica*  
準絶滅危惧



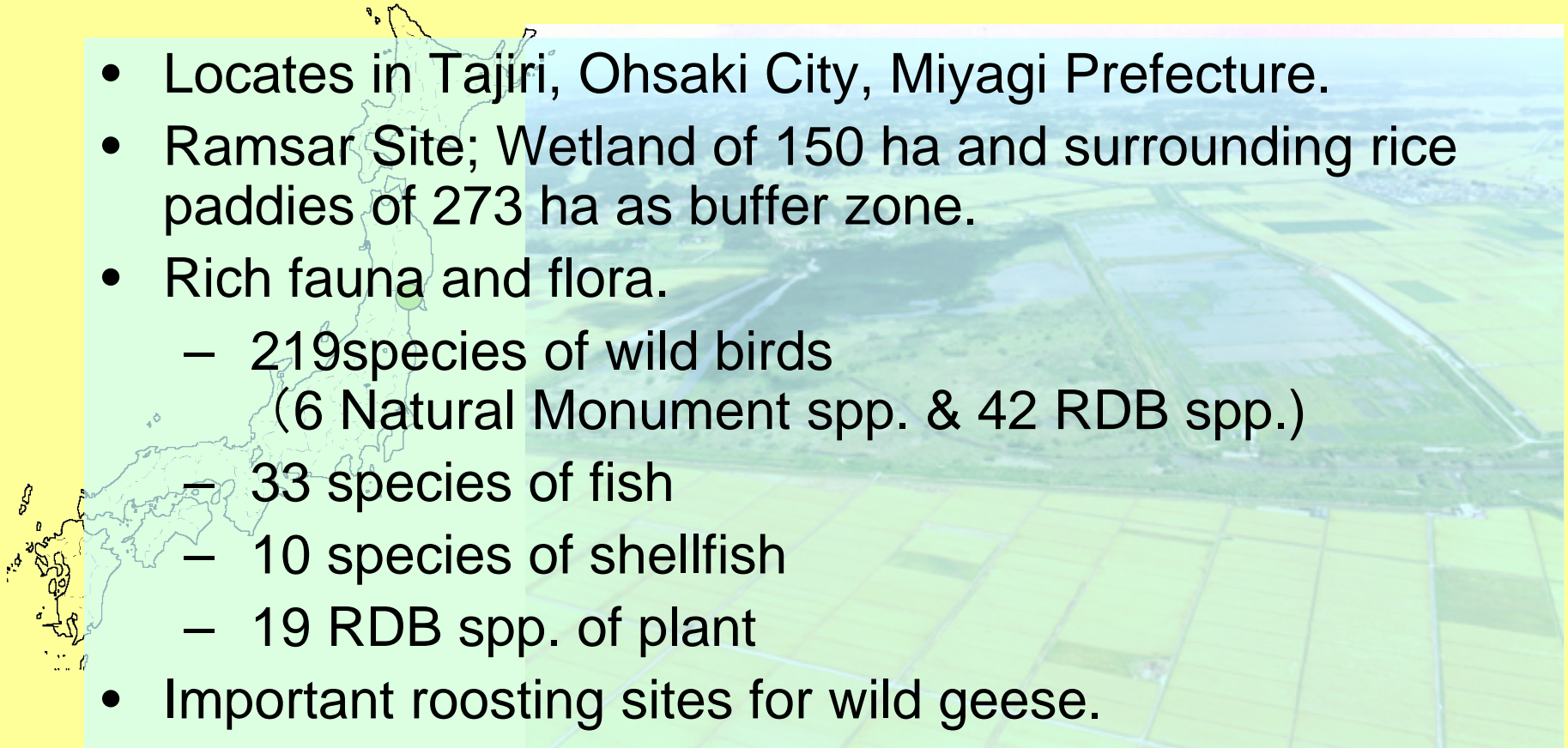
メダカ *Oryzias latipes* 絶滅危惧Ⅱ種



# Kabukuri-numa Marsh

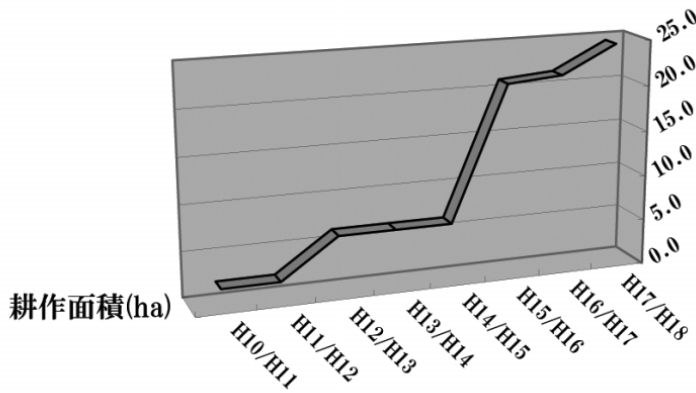
## -Leading Project for Co-existence Rice and Birds -

- Locates in Tajiri, Ohsaki City, Miyagi Prefecture.
- Ramsar Site; Wetland of 150 ha and surrounding rice paddies of 273 ha as buffer zone.
- Rich fauna and flora.
  - 219 species of wild birds  
(6 Natural Monument spp. & 42 RDB spp.)
  - 33 species of fish
  - 10 species of shellfish
  - 19 RDB spp. of plant
- Important roosting sites for wild geese.
- Leading project for promoting co-existence of rice farming and waterfowl through recovering or restoring wetland habitat.



# Farmers Join to Winter Flooded Rice Paddy around Kabukuri-numa since 1998/99 winter

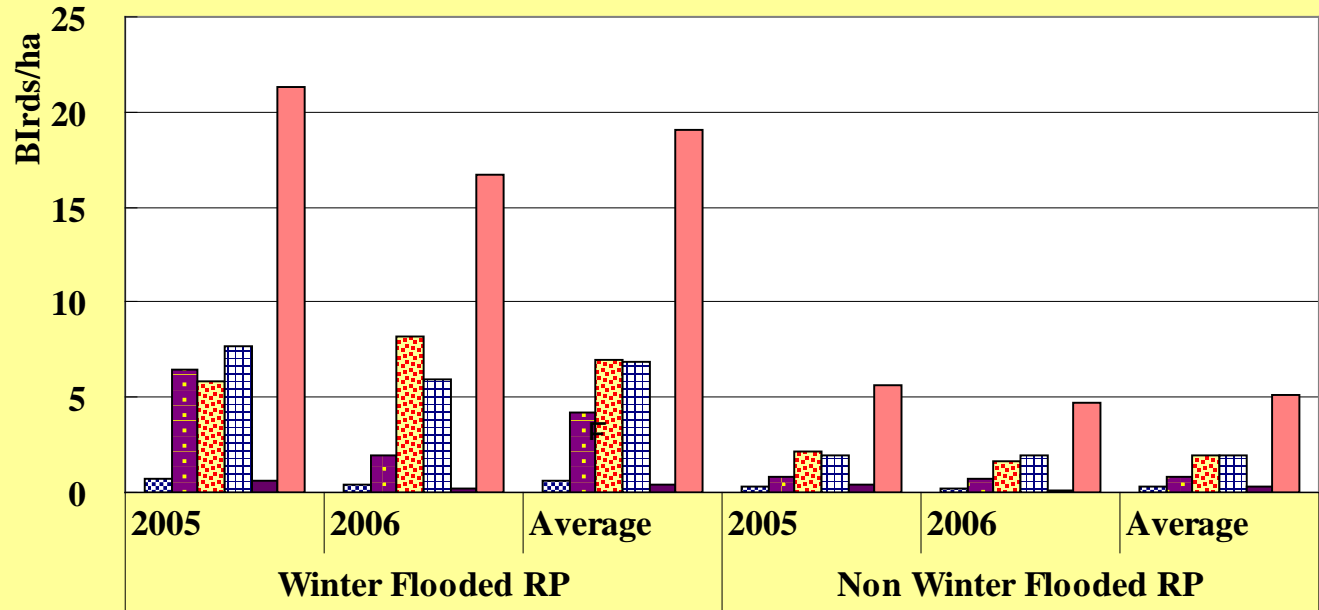
大崎市田尻（旧田尻町）ふゆみずたんぼの耕作面積 (ha)



Bewick's Swans in Winter-flooded Rice Paddy



# Monitoring at Winter Flooded Rice Paddy in Summer



	Winter Flooded RP			Non Winter Flooded RP		
	2005	2006	Average	2005	2006	Average
Grey Heron <i>Ardea cinerea</i>	0.73	0.45	0.59	0.35	0.20	0.28
Cattle Egret <i>Bubulcus ibis</i>	6.50	1.98	4.24	0.78	0.77	0.77
Great Egret <i>Egretta alba</i>	5.85	8.16	7.01	2.19	1.62	1.91
Intermediate Egret <i>E. intermedia</i>	7.70	5.94	6.82	1.91	1.97	1.94
Little Egret <i>E. garzetta</i>	0.58	0.20	0.39	0.39	0.14	0.27
<b>Total</b>	<b>21.35</b>	<b>16.73</b>	<b>19.04</b>	<b>5.63</b>	<b>4.70</b>	<b>5.16</b>

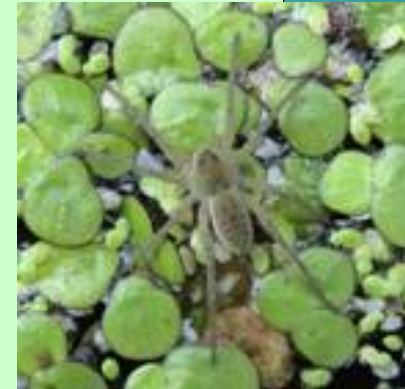
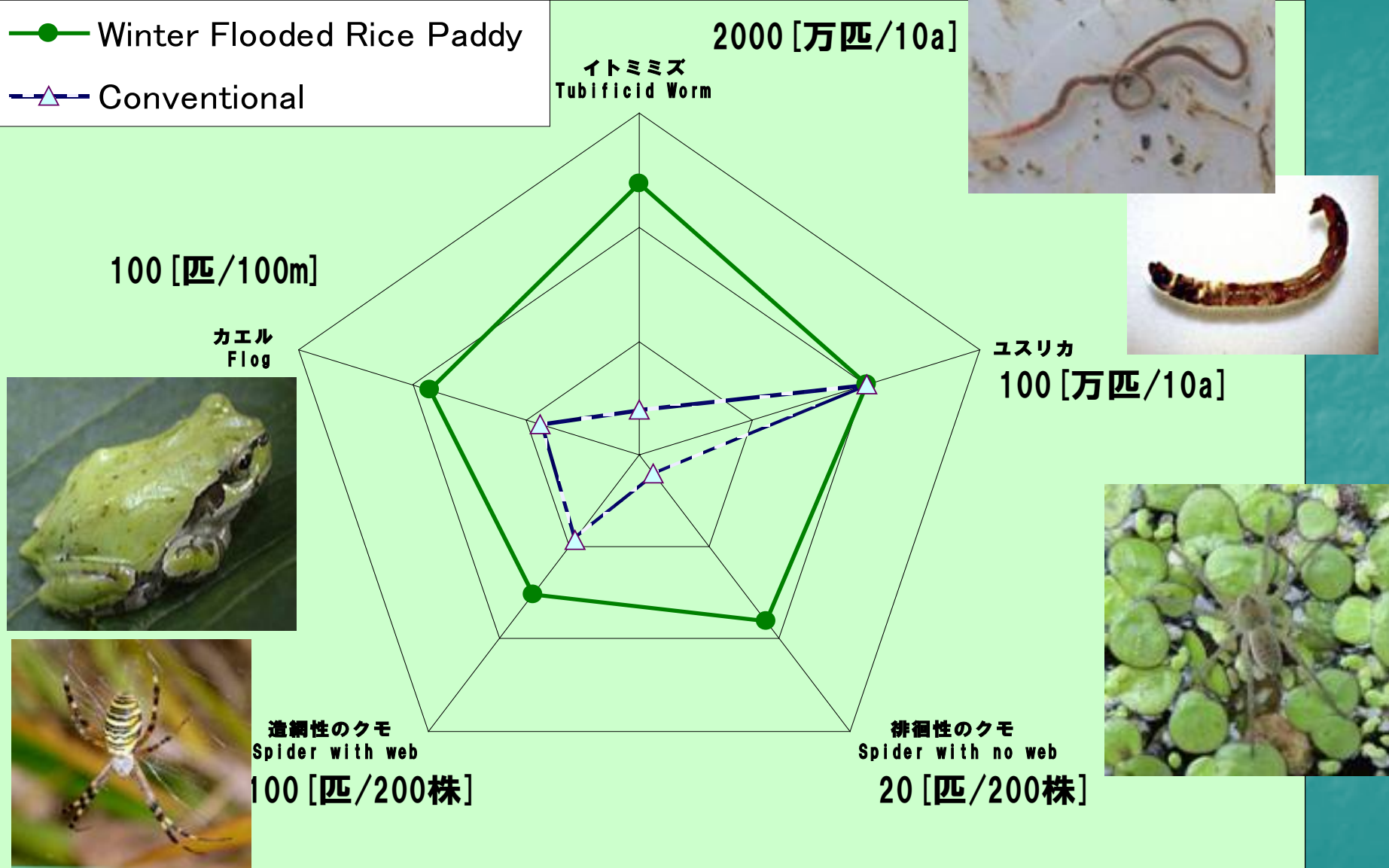
**Winter-flooded Rice Farming and Heron Density in Summer ( Average in 2005 & 2006 summers n=1,980)**

*Around 4 Times Higher in WFRP*

# Winter Flooded Rice Paddy with High Biodiversity

ふゆみずたんぼにするといろいろな生き物がよみがえる

● Winter Flooded Rice Paddy  
 ▲ Conventional





# Winter Flooded Rice Paddy

## Benefits both Wildlife & Agriculture

### [Wildlife in rice paddy]=Habitat Recovery

- Rich biodiversity... from microorganisms to waterbirds
- Spread flyways of Geese throughout Japan by the network of WFRP.

### [Agriculture]=New method of Farming

=WFRP Method= IBM (Integrated Biodiversity Management)

- Weeds Control Effect (No or less herbicide)
- Pests Control Effect (No or less pesticide)
- Waterfowl Droppings as Fertilizer (Less fertilizer)
- Decompose rice straw
- Model of IBM

### [Co-existent way for Agriculture and Nature ; Agro-Biodiversity]

- Sustainable
- Less Impact against Environment

# *The Kabukuri-numa Declaration* (1998)

## (One Wetland, One Future)

We, the participants of the Twelfth Annual Symposium on Geese,

- Aware that the wetland environment of Kabukuri-numa and the rice paddies surrounding it, here in Tajiri Township, Miyagi Prefecture, constitutes a precious legacy that we can be proud of before the whole world,
- Further aware that, for the migratory geese that seek out this rich wetland environment every year, it is an internationally important site, and is moreover one of the premier wintering grounds for geese in Japan,
- We are convinced that to maintain this wetland landscape will afford significant benefits not only to geese, but also to humankind, including people living in the local area,
- Thus, we declare that we will promote rice agriculture that will protect this environment and enhance its naturalness, which will also provide a better food source for the geese,
- And, we recognize that to pursue a wholesome agricultural practices that allow for co-habitation with geese will result in sustainable agriculture that makes the best possible use of the area's geographical advantages,
- Thus, in order to protect the wetland landscape and manage Kabukuri-numa and the rice paddies surrounding it for the purpose of conserving the birds, fish, and other animals that inhabit the site,
- We will seek to establish a management plan for Kabukuri-numa and the rice paddies surrounding it that will include the participation, and put into practice the wisdom, of people from various fields, including local residents,
- And, in order that the values embodied in Kabukuri-numa shall be passed on without fail to the next generation in the twenty-first century, for example through establishing a Ramsar Designation Preparatory Committee,
- We hereby declare that we will make our utmost efforts.

8 December 1998

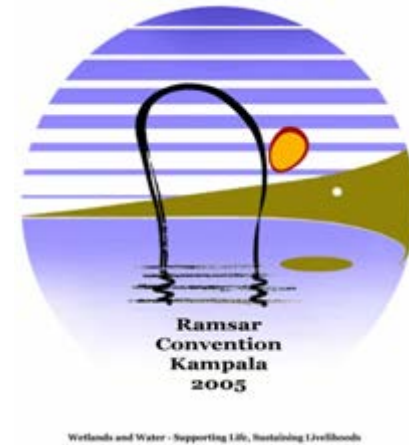
Tajiri Township, Miyagi Prefecture Japan

Participants of the Twelfth Annual Symposium on Geese



# *The Ramsar Convention on Wetlands*

**COP9 Kampara, Uganda 2005**



**New Ramsar site, *Kabukurinuma and the surrounding rice paddies*, Nov.2005**



# *Kabukuri-numa and Surrounding Rice Paddies*

## New Ramsar Site in November 2005



- First Ramsar Site Involving Large Area of Rice Paddy, typical Asian Wetland, under Agreement of Most Stakeholders.
- New Idea on Ramsar as a Useful Tool for Agro-Environmental Rice Farming.

Hit an Idea for Rice paddy Resolution in Ramsar COP10



# Winter-flooded Rice Farming in Ramsar Site Produces Higher Value-added Rice

- Twelve farm families produce higher value-added **Winter-flooded Paddy Rice** brand in rice paddies in Ramsar Site since 2004.
- Environmental profit for wildlife and economical profit for wildlife friendly farmers.
- **Tajiri Town** is positive to adopt Agri-environmental policy activity and supported the challenge by its own policy of direct benefits from improved environment.
- First step for **Abundant Waterbirds and Profitable Agriculture**
- **Idea for Rice paddy Resolution X.31**, Ramsar COP10



*Fuyumizutambo-Mai*

“Winter Water Paddy Rice”



# Activities of NGOs for Rice Paddy Resolution X.31; *Enhancing Biodiversity in rice paddies as wetland systems*

- 2005: Ramsar COP9 Side Event by NGOs of Korea and Japan
- 2008: Appeal for Importance of Rice Paddy as Agricultural Wetland in Ramsar Asia Regional Meeting
- 2008: World NGO Conference on Wetland
- 2008: Ramsar COP10 Side Event by NGOs of Korea and Japan



# Rice Paddy Resolution X.31 adopted in Ramsar Cop10 2008



**Proposed by governments of Japan and Korea  
Supported by NGOs of both countries.**

# Rice Paddy Resolution X.31

- 1) Rice paddy of agro-wetland **can work sustainably with rich biodiversity** if managed properly.
- 2) **Releasing** Biodiversity of rice paddy, Asian typical wetland, **to the world.**
- 3) **Bridge to CBD COP10**, 2010 in Nagoya.
- 4) **Focusing on artificial wetland** which has strong relation with human activity and is required its wise use.



# Civil-Government Meetings on Biodiversity in Rice Paddies in Japan since 2009

Launched by a proposal from **NGO** for the Implementation of the Rice Paddy Resolution In July 2009.

**Government:** Ministry of the Environment (**MOE**)/ Ministry of Agriculture, Forestry and Fisheries (**MAFF**)/ Ministry of Land, Infrastructure, Transportation and Tourism (**MLIT**)

**NGO:** Ramsar Network Japan.

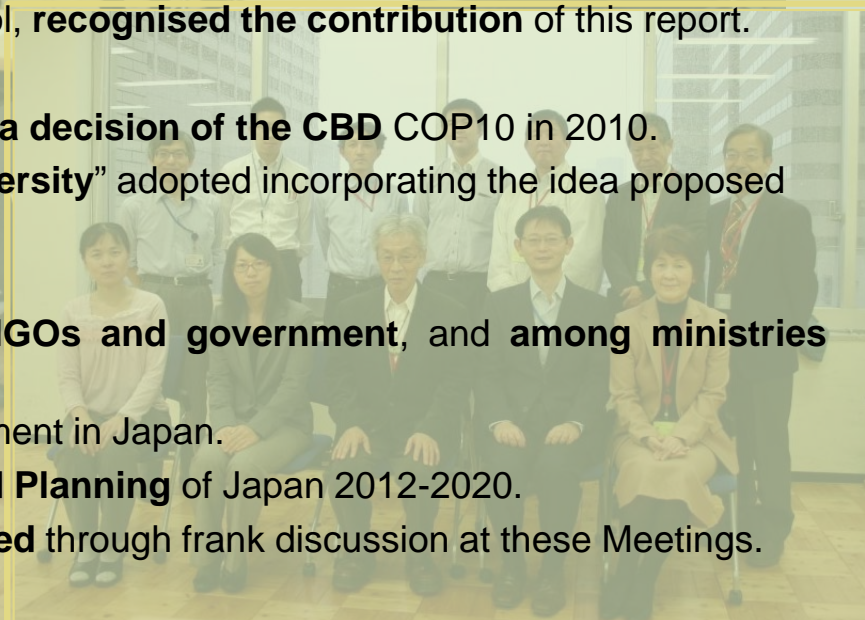
- **A platform for implementing Ramsar Resolution X.31** “Enhancing Biodiversity in Rice Paddies as Wetland Systems”(Ramsar COP10 in 2008).
- **Frankly exchanged opinions** and **practical results** obtained.
- **Promote understanding on** government policies and concrete local activities
- **Bridges between** farmers/citizens in the field and government officials.
- **Cooperative work project involving the MOE and NGOs** for a report to **Ramsar COP11** on case studies and presentations on biodiversity in rice paddies
- **Ramsar Resolution XI.15**, Rice paddy and pest control, **recognised the contribution** of this report.

**Big achievements:**

- **Incorporate Ramsar Resolution** on rice paddies **into a decision of the CBD COP10** in 2010.
- **Drafted the CBD Decision X/34 “Agricultural Biodiversity”** adopted incorporating the idea proposed by the Japanese government.

**The largest outcome;**

- **Enhanced mutual understanding both between NGOs and government, and among ministries** within the government.
- **Unique framework** for both NGOs and for the government in Japan.
- **Mentioned in the National Biodiversity Strategy and Planning** of Japan 2012-2020.
- Expected that **ideas for new policies will be developed** through frank discussion at these Meetings.
- Outline will be **up to HP of FAO**



# Progress of Rice paddy decision for CBD COP10

**First draft** by Ramsar Network Japan, Japanese NGO.

**Regular Civil-Government Meetings in Japan on Biodiversity in Rice Paddies** (MOE, MAFF, MLIT) and NGO (RamNetJ)

**Draft by Government of Japan**

**CBD SBSTTA 13** (May10-21,2010, Nairobi)

The draft was proposed, discussed and **accepted** as a part of recommendation of ***AGRICULTURAL BIODIVERSITY: for COP10***

**adopted in CBD COP10, Oct. 2010, Nagoya**  
*Decision X/34: Agricultural Biodiversity*



# Tambo

"Tambo" is Japanese meaning Rice Paddy. It has just come to light that the rice paddy ecosystem in Japan supports as many as 5,668 species of living organisms.  
That's the first result of co-ordinated surveys of many paddy fields in different fields.  
The components linked with rice paddy form a complex ecosystem known as Satoyama landscape in Japan and provide habitats for various living organisms.

5668

# Wildlives in Rice Paddy as Resources

- Agricultural Resources for Sustainable Agriculture
- Local Food Resources to be used sustainably
- Bio Resources creating rich landscape

# WHY RICE PADDY? (2)

## ■ **WORLD**

- Main food to support for a half of world population
- Abundant in Asia
- **Its bio-diversity**
  - From floating rice in deep water to dry field rice
- Sustainable farming

## ■ **Asia**

- Producing 90 % of the world
- Asia-original wetland plant adapted to Asia monsoon weather of high humidity and much rain.

## ■ **Africa**

- Spreading areas in middle and western part.
- Developing "New" **NERICA** growing NOT in dry field but in **Low Wetland with rain water** (supported by JICA et al)

## ■ **Neotropics**

- Large scale farming
- Rice paddy-grass land rotation





Viet Nam



ASIA



Indonesia



Bangladesh



# AFRICA

Tanzania



Kenya Mwea

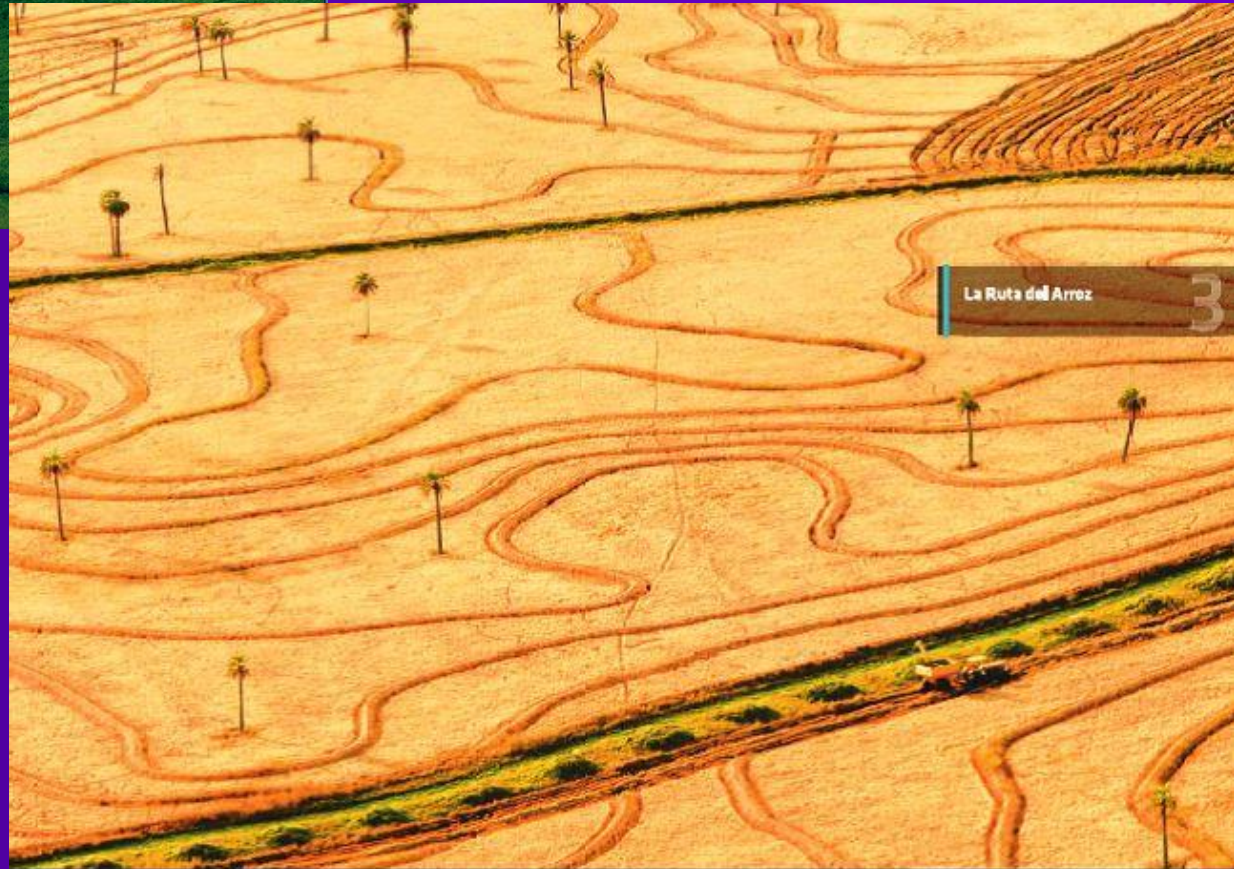


4. 田植え風景。アフリカでは、手植えの水田が依然多く、重労働となっている。

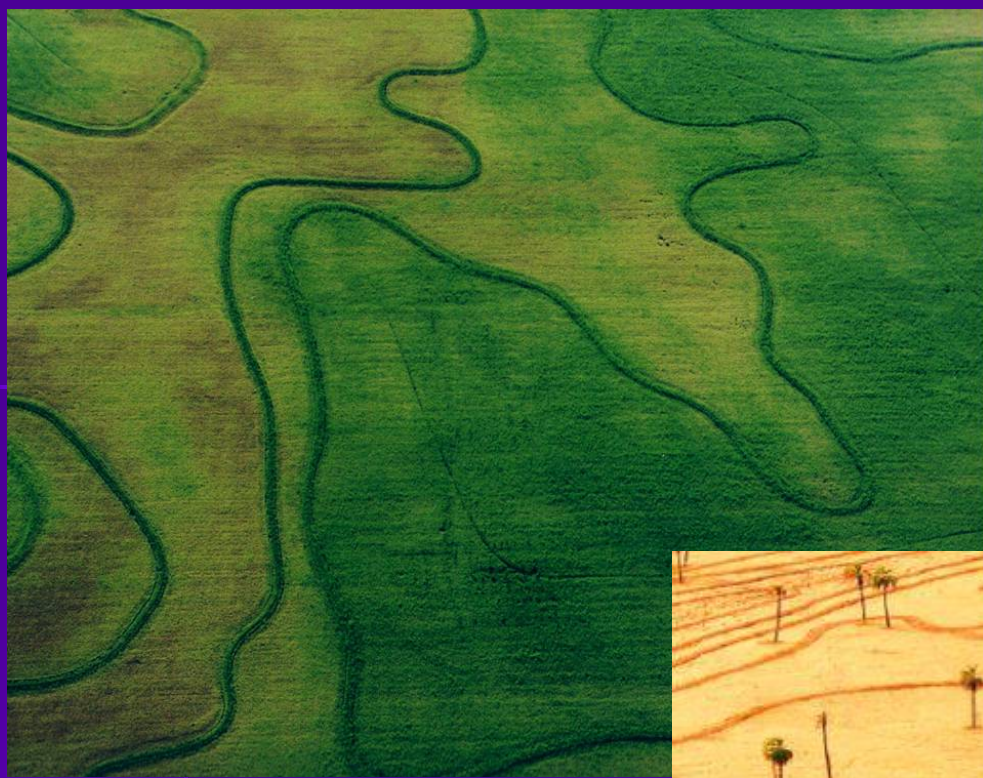


# Neo Tropics

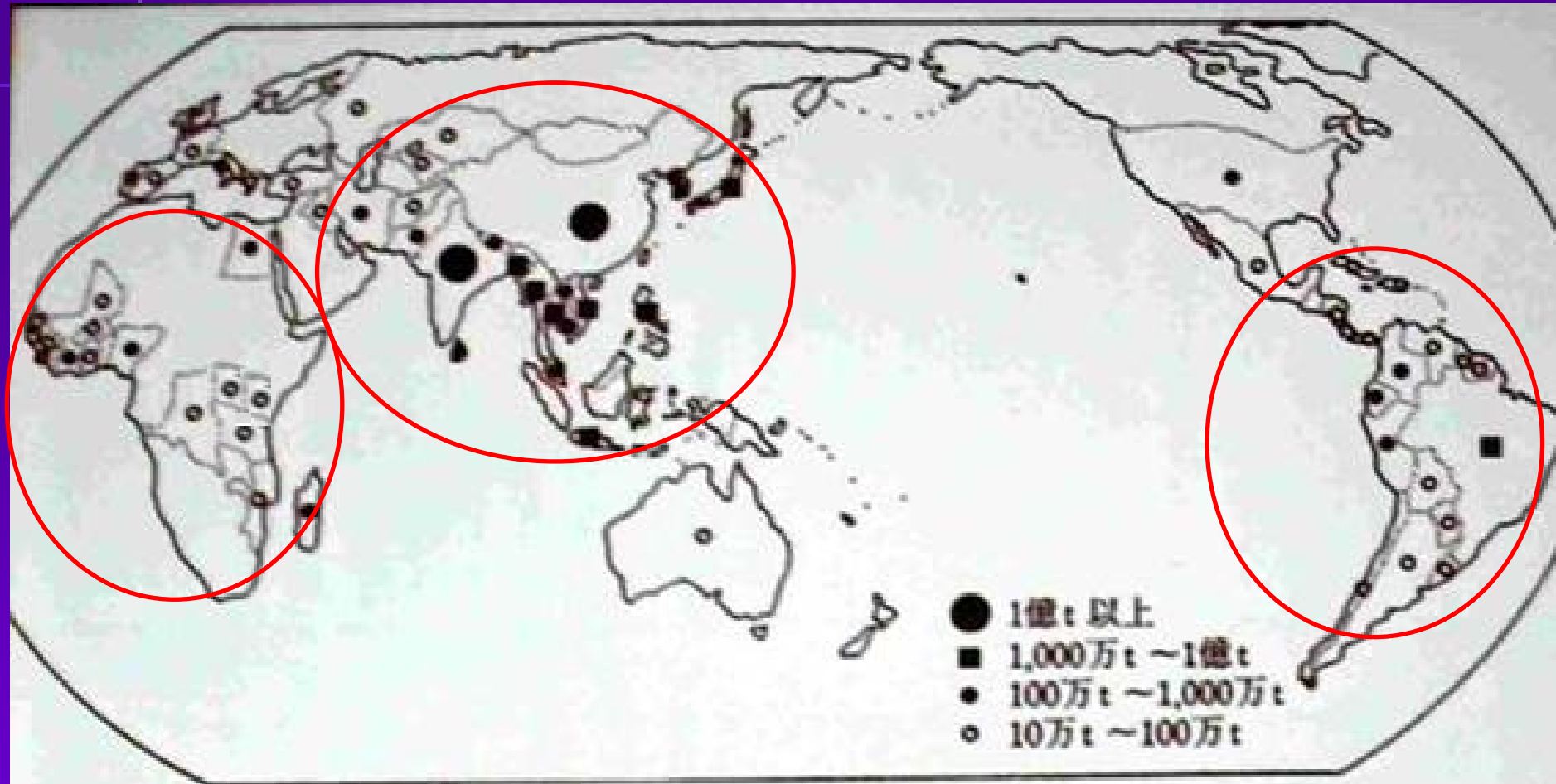
Uruguay



Brazil



# Distribution of Countries with Rice Paddies



世界のコメ生産国 (1996)

(FAOSTATより作)



# Rice Consumption per person

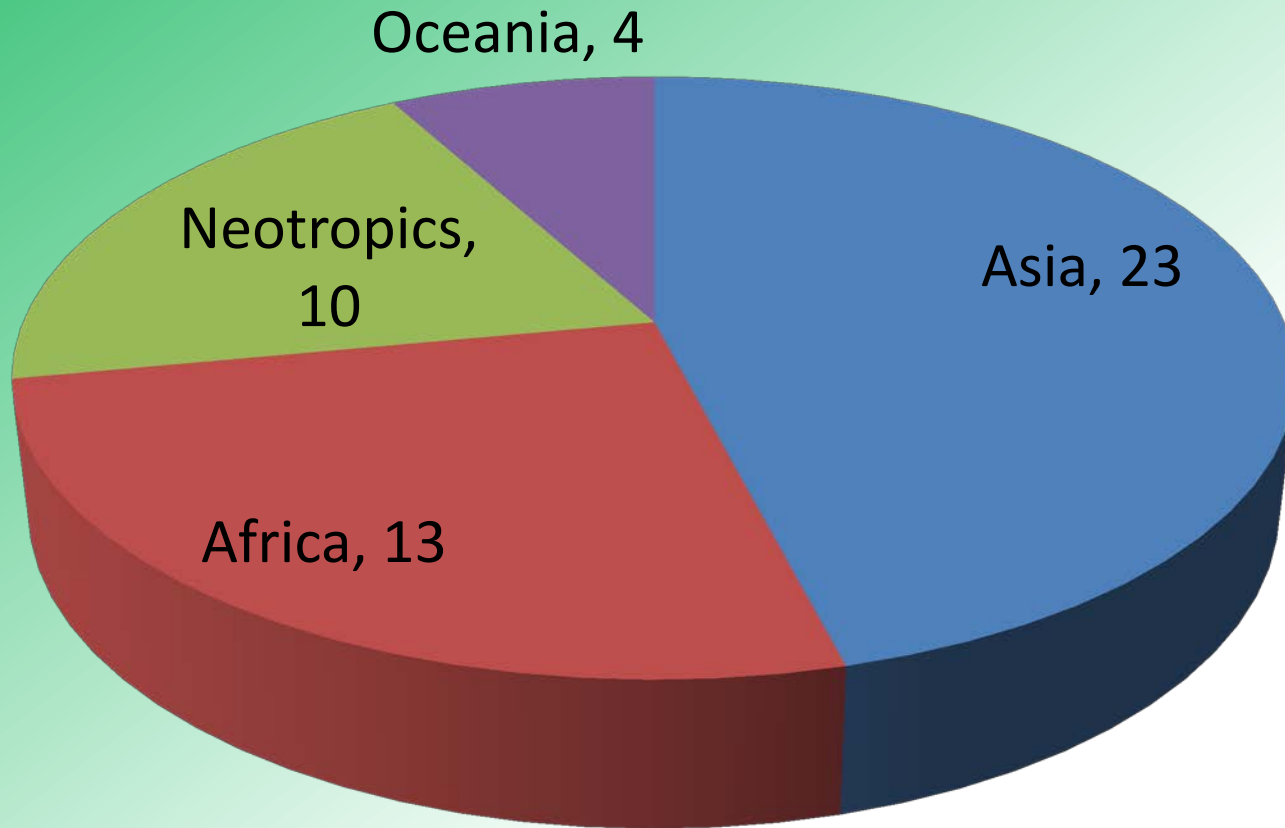
## Best 50 Countries\*

rank	country	region
1	Bangladesh	Asia
2	Lao	Asia
3	Cambodia	Asia
4	Vietnam	Asia
5	Indonesia	Asia
6	Myanmar,	Asia
7	Philippines	Asia
8	Thailand	Asia
9	Sri Lanka	Asia
10	Madagascar	Africa
11	Sierra Leone	Africa
12	Guinea	Africa
13	Guinea-Bissau	Africa
14	Liberia	Africa
15	South Korea	Asia
16	Nepal	Asia
17	China	Asia
18	Malaysia	Asia
19	Guyana	Neotropics
20	North Korea	Asia

rank	country	region
21	Brunei	Asia
22	India	Asia
23	Senegal	Africa
24	Suriname	Neotropics
25	Gambia	Africa
26	East Timor	Asia
27	Kuwait	Asia
28	Cuba	Neotropics
29	Panama	Neotropics
30	Côte D'ivoire	Africa
31	Kiribati	Oceania
32	FS of Micronesia	Oceania
33	Mali	Africa
34	Solomon Islands	Oceania
35	Benin	Africa
36	Mauritius	Africa
37	Maldives	Asia
38	UAE	Asia
39	Caboverde	Africa
40	Costa Rica	Neotropics

rank	country	region
41	Dominica	Neotropics
42	Taiwan	Asia
43	Haiti	Neotropics
44	Hong Kong	Asia
45	Fiji	Oceania
46	Djibouti	Africa
47	Ecuador	Neotropics
48	Peru	Neotropics
49	Nicaragua	Neotropics
50	Japan	Asia

# Rice Consumption per persons Best 50 Countries\*





# Ramsar Sites of the World

and

# the Sites Inside Rice Growing

(data; the Ramsar Sites Database by WI)



Ramsar sites of the World



Ramsar sites Inside Rice growing

75 sites

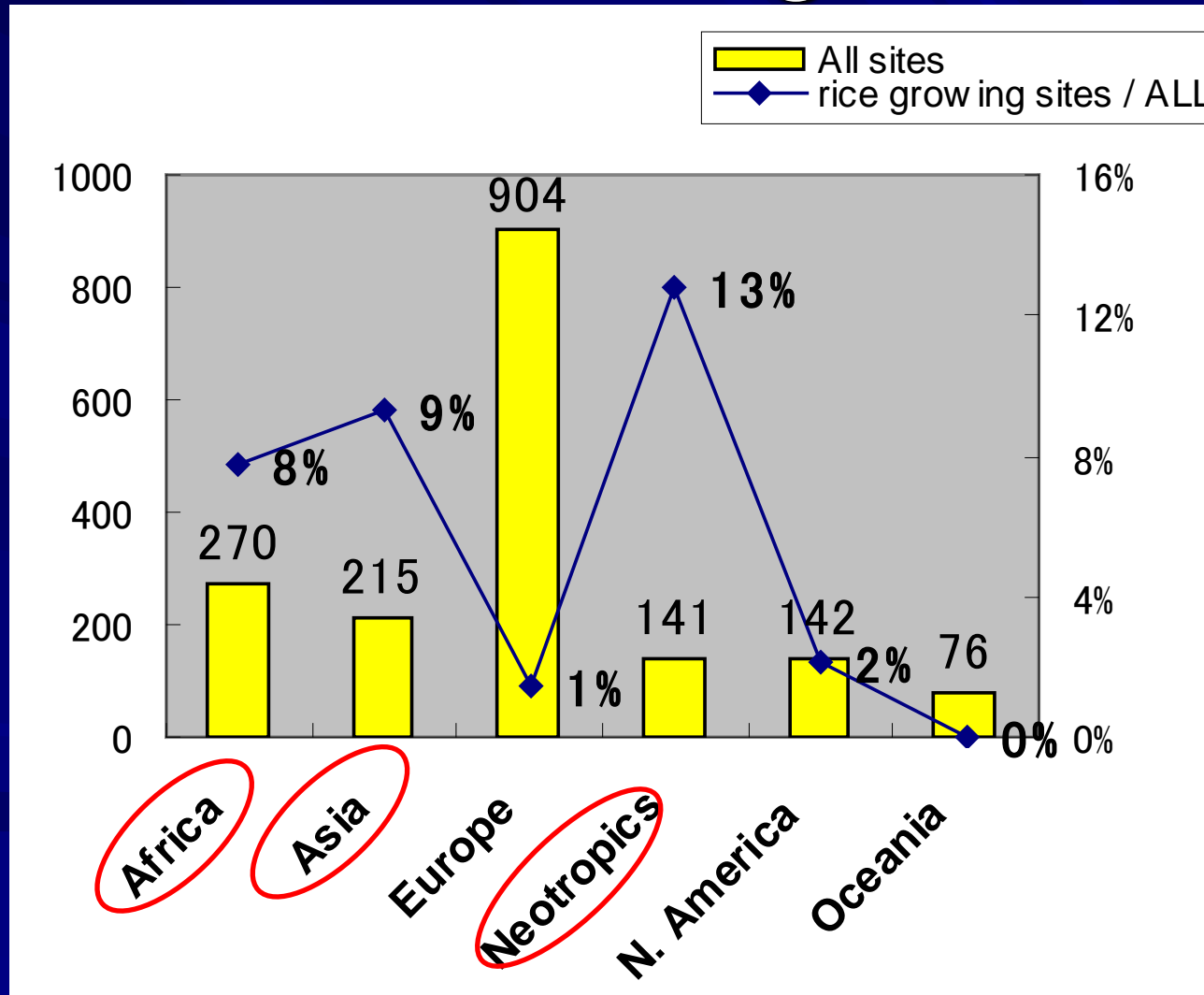
**Rice  
Growing  
Ramsar  
Sites,  
Inside or  
Outside**

(data; the Ramsar Sites Database by WI)



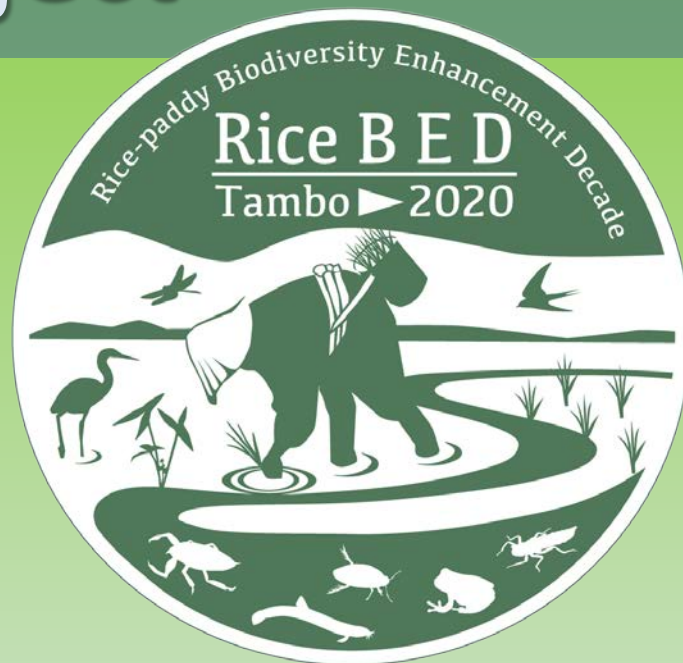


# Rice Growing Ramsar Sites in each Reagon



「田んぼの生物多様性向上10年プロジェクト」

# Rice-paddy Biodiversity Enhancement Decade RiceBED Project



国連生物多様性の10年日本委員会  
認定連携事業

愛知目標の達成をめざす、  
にじゅうまるプロジェクトにも参加







NGO Initiative for UN  
Decade of Biodiversity

# UN Decade of Biodiversity(2011-2020)

## **RiceBED Project** Rice-paddy Biodiversity Enhancement Decade Project

Rice Paddy Res.  
(Ramsar + CBD)

Country level

Local level

Community  
level

Aichi Biodiversity Target,  
CBD COP10;  
Tgt#;1,3, 4, 7, 8, 9, 11, 14, 17, 18

RiceBED Project of [ A ]

RiceBED Project of [ B ]

RiceBED Project of [ C ]

RiceBED Project of [ D ]

Ask people of various  
fields for joining  
in UNDB

Umbrella for  
supporting long term  
activities of  
biodiversity  
enhancement of  
various fields.

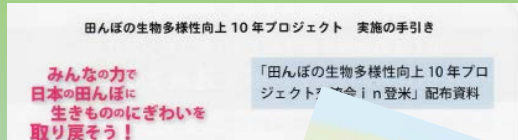
# Kick off Symposium for Rice-paddy Biodiversity Enhancement Decade Project (Oyama, 9 Feb.2013)

More than 50 organizations/ individuals have joined from many different sectors; farmers, environmental NGOs, local governments, scientists, companies, school teachers and etc.





# What's Rice-paddy Biodiversity Enhancement decade ?



Rice Paddy Target  
(Aichi Biodiversity Target, CBD COP10)

Action Plan

Itemized Activities  
Based on the  
Aichi Biodiversity  
Targets, CBD COP10



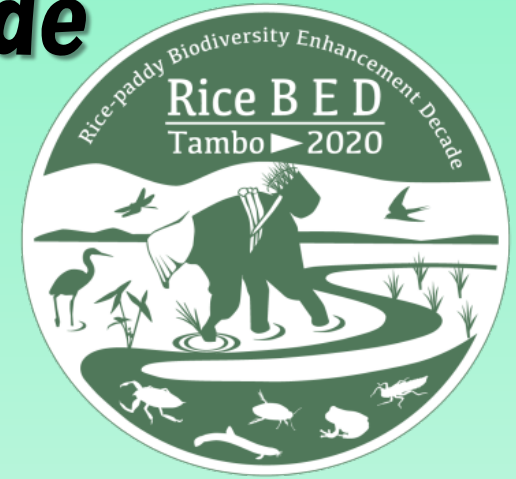
Good Practice

Support for  
Local Exchange  
Gatherings

Join/  
resistration

**Support RiceBED Project, as an umbrella for Activities to Enhance Biodiversity in Rice Paddy:**  
諸活動の実施と継続・関係者との交流・目標達成・田んぼの主流化

# Rice-paddy Biodiversity Enhancement Decade Project



Join us in **RiceBED** Project  
to cover

**Asia-Africa-Neotropics regions**

<http://www.ramnet-j.org/tambo10>





ふゆみずたんぼ

Thank you for your attention

編集/日本野鳥保護連合会

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発行/環境省 東北地区自然保護事務所

〒980-0014 宮城県仙台市青葉区本町3丁目2番23号  
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写真協力: 佐藤幸夫・高橋 信(ON)/川崎隆雄 柳川真一/長谷川 真樹(長) 高橋 幸・高野隆二/石川誠 佐藤 孝(野)  
デザイン: 44/イラストレーション: 藤田 誠

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