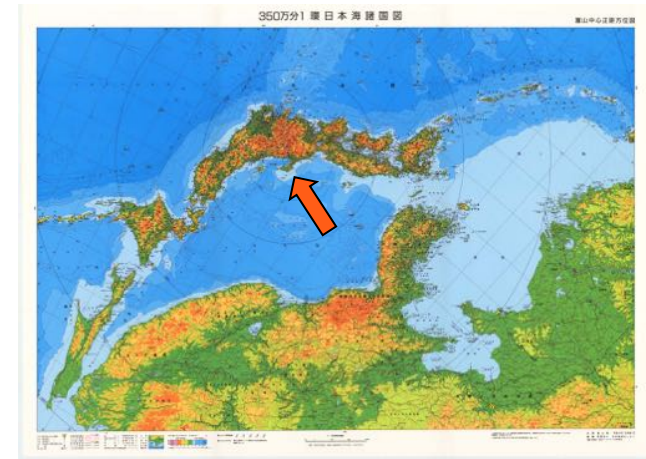




August 27, 2018
Minabe Town, Wakayama,
Japan

The 5th Conference of ERAHS



Twinning of GIAHS Sites for Sustainable Development of Communities : Noto's Satoyama and Satoumi (Japan) and Ifugao Rice Terraces (Philippines)

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Project Manager, ISMTP-Phase 2 (JICA Technical Cooperation for Grassroots)
Chair for Japan, ERAHS

² Onsite Project Manager, ISMTP-Phase 2, Ifugao State University, Philippines

³ Collaborative Research Fellow, Kanazawa University
Vice Project Manager, ISMTP-Phase 2

Profile

Koji Nakamura, Dr. Agr.

**Visiting Professor (Professor Emeritus),
Kanazawa University**



Ecology, Insect population dynamics
Biodiversity, Tropics – Indonesia and Philippines
Satoyama and Satoumi in Japan and East Asia

Representative, Satoyama Satoumi Project

Noto Peninsula Satoyama-Satoumi Nature School, 2006-

Noto Satoyama Meister Training Program, 2007-12

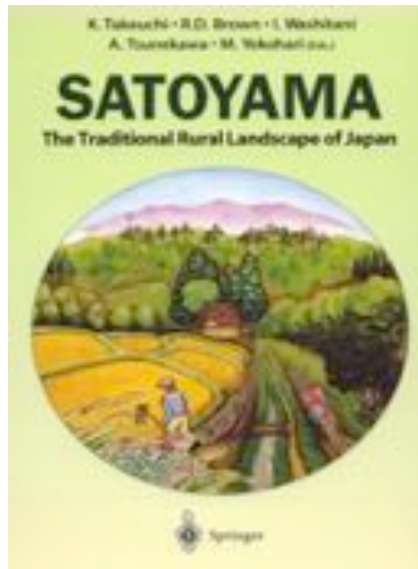
Noto Satoyama Satoumi Meister Training Program, 2012-15, 16-

Ifugao Satoyama Meister Training Program , 2014-

Satoyama and Satoumi in Japan : definition, importance, present conditions and problems

Definition of Satoyama-Satoumi

2



SATO-YAMA



SATO-UMI

SATO = Village, home town

YAMA = Farm land

UMI = Beach, ocean
(Mountain, hill)

What are Satoyama and Satoumi ?



SATOYAMA



SATOUMI

- “Production landscapes” sustainably managed by human activities such as agriculture, forestry and fishery (Secondary nature).

→ Proper managements are necessary.

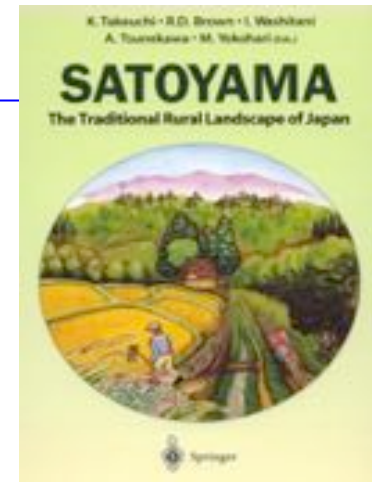
- Mosaics of different habitats with intermediate disturbance.
- Status has been changing over time depending on economical and other situations

Importance of Satoyama

2

- Large Area Japan: 40%; Ishikawa 60~70% ; Noto 100%
- High biodiversity and focus of extinction (e.g. formerly common species such as Ibis, stork, medaka-fish, fire flies, frogs etc)
- Ecosystem Services
- Sustainability and harmonious relationship between human and nature

- Agriculture forestry and fishery have public and multifunctional values





Biodiversity



Ecosystem services

Provisioning

- Food
- Wood & fiber
- Fuel

Regulating

- Climate
- Flood
- Water purification

Cultural

- Aesthetic
- Spiritual
- Educational
- Recreational

Supporting

- Nutrient cycling
- Soil formation
- Primary Production

Internationalization of Satoyama and Satoumi

Millennium Ecosystem
Assessment(MA)

2001-2005

Key words

Scientific and policy-
relevant assessment

Ecosystem services

Human well-being

Multi-stakeholder

Japan *Satoyama Satoumi*
Assessment (JSSA)

2007-2010

The International Partnership for
the Satoyama Initiatives (IPSI)

2010-

Globally Important
Agricultural
Heritage Systems
(GIAHS)

2002-

Products

- Provided **a valuable scientific data base**
- Provided **a valuable epistemic community of scholars and practitioners**

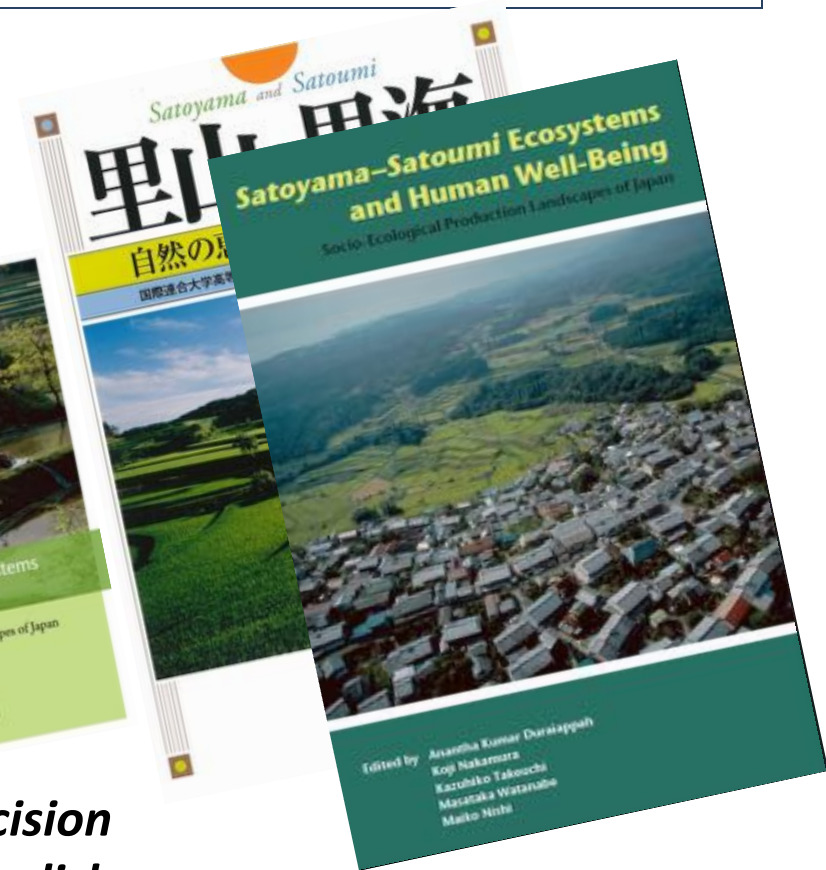
*Policy Brief, 2010
(English)*



*Cluster Reports
- 6 Regions, 2010
(Japanese)*



*Summary for Decision
Makers, 2010 (English
& Japanese)*



*Technical Reports– Books, 2012
English – UNU Press
Japanese–Asakura Publishing*

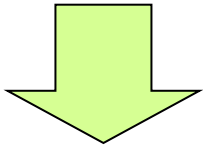
Large-scale overexploitation
is a major global problem
Satoyama is a new model
for sustainable development
living in harmony with nature

世界的に見ると、いまま大規模、乱開発が主要な問題

→ 自然との共生,持続発展へ

里山里海は、グローバルな先進モデル

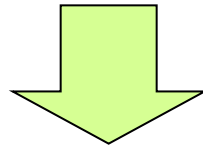
SATOYAMA SATOUMI: from Japanese to global concept



International
Partnership of
SATOYAMA
Initiative (IPSI)

Convention of
Biodiversity (CBD)

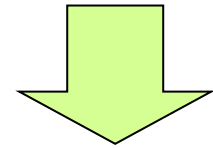
Ministry of
Environment



Globally
Important
Agricultural
Heritage
Systems (GIAHS)

FAO

Ministry of
Agriculture, ...



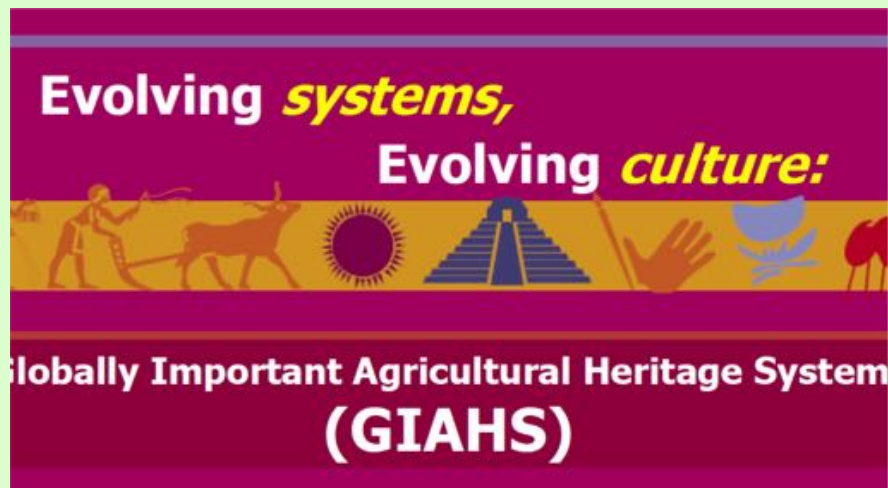
Biopshere
Reserves (BR,
Japan Eco-Park)
Biocultural
divviversity

UNESCO-MSB
Ministry of
Education, ...

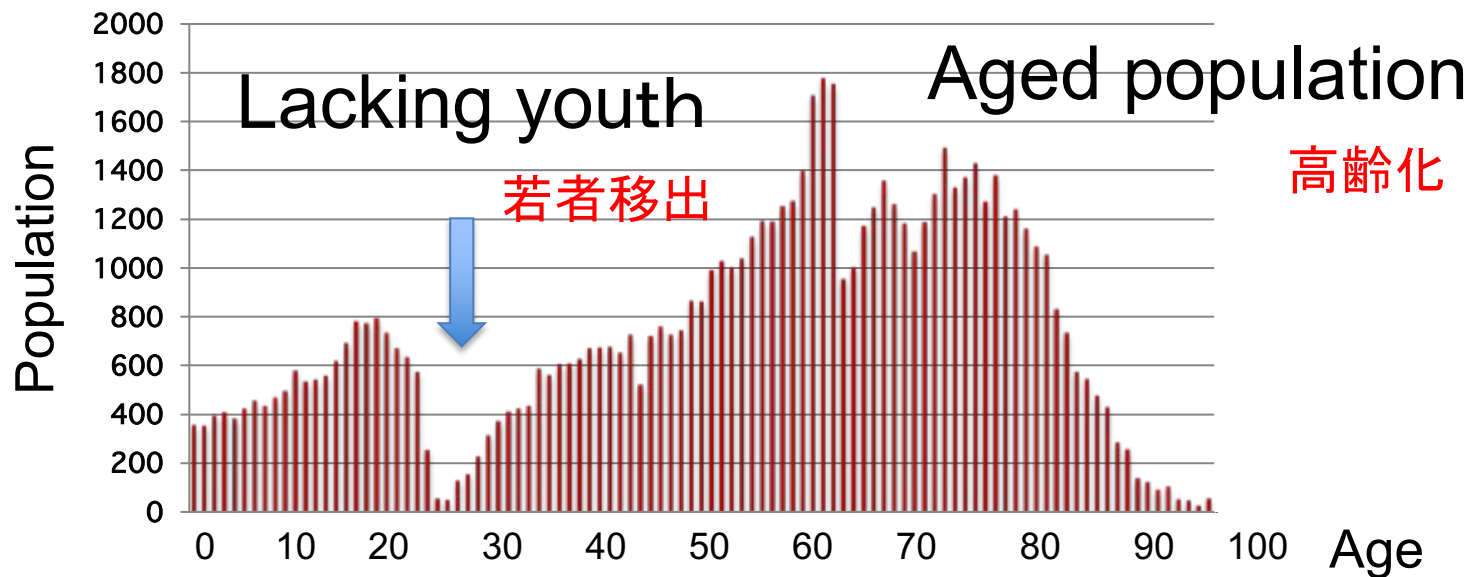
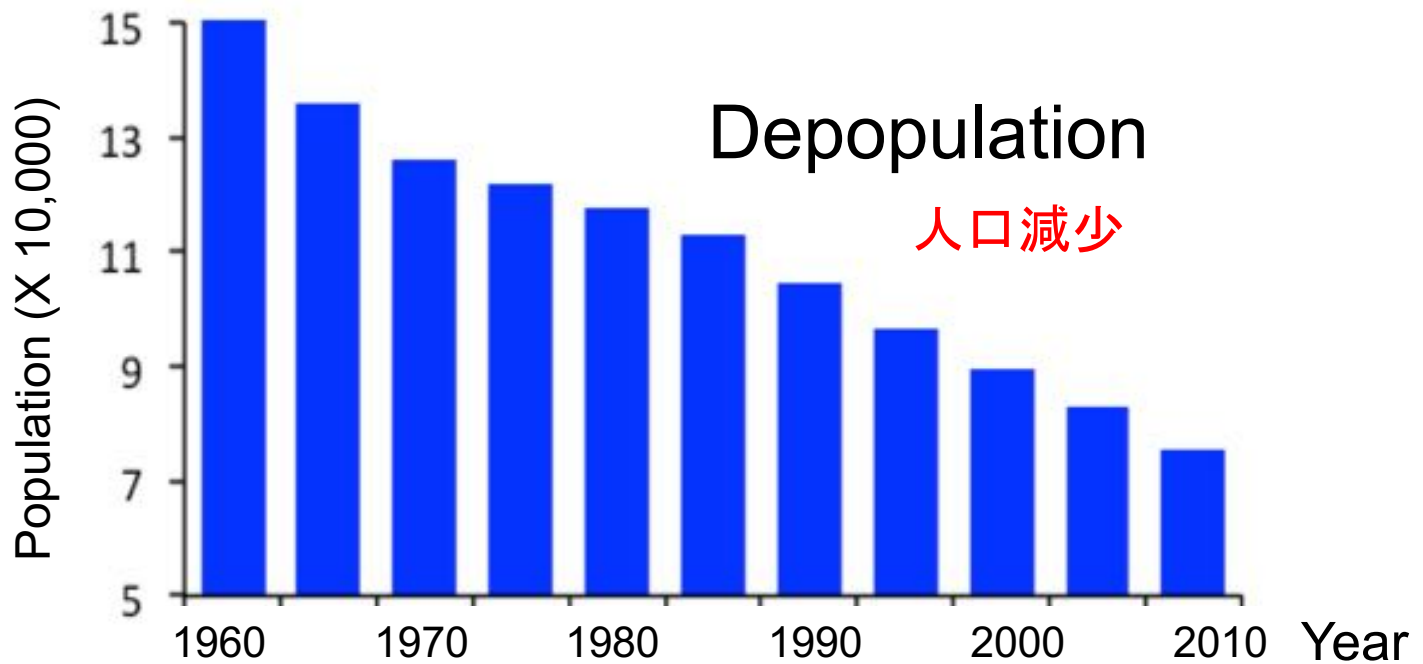
Globally Important Agricultural Heritage Systems (GIAHS) 世界農業遺産

GIAHS Noto's Satoyama and Satoumi 「能登の里山・里海」(七尾市など9自治体)

2011.6.11 GIAHS 北京フォーラムで、
佐渡市の「朱鷺と暮らす郷づくり」と同時認証



Population trend in Oku-Noto 奥能登の人口変化



Kanazawa University' s Initiatives for revitalization of Satoyama and Satoumi

In Kakuma Campus

” Kakuma Satoyama Nature School” 1999-

In Noto Peninsula

” Noto Satoyama Satoumi Nature School” 2006-

” Noto Satoyama Meister Training Project” 2007- 2012

“ Noto Satoyama Satoumi Activities for Exchange of Satoyama/

Satoumi and Urban Areas” 2009-2011

” Noto Satoyama Satoumi Meister Training Project” 2012-

Long-term field studies on Satoyama/Satoumi ecosystems

Noto Satoyama Meister Training Program

MEXT (Ministry of Education) Funded Project

(Special Coordination Funds for Promoting Science and Technology)

2007~2012
(2 yr program)
62 graduates
14 from urban
areas

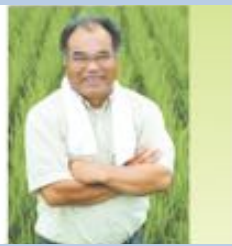


Capacity building of Young Leaders

Targets:
Young boy and girls in urban areas
Young staffs of local city and town offices
Sons and daughters of local farmers



Representative



Farmer leader



Special prfs Senior local staffs



Young Post-doc staffs
resident in Suzu



165 “Meisters” were born
Active in Noto and other regions



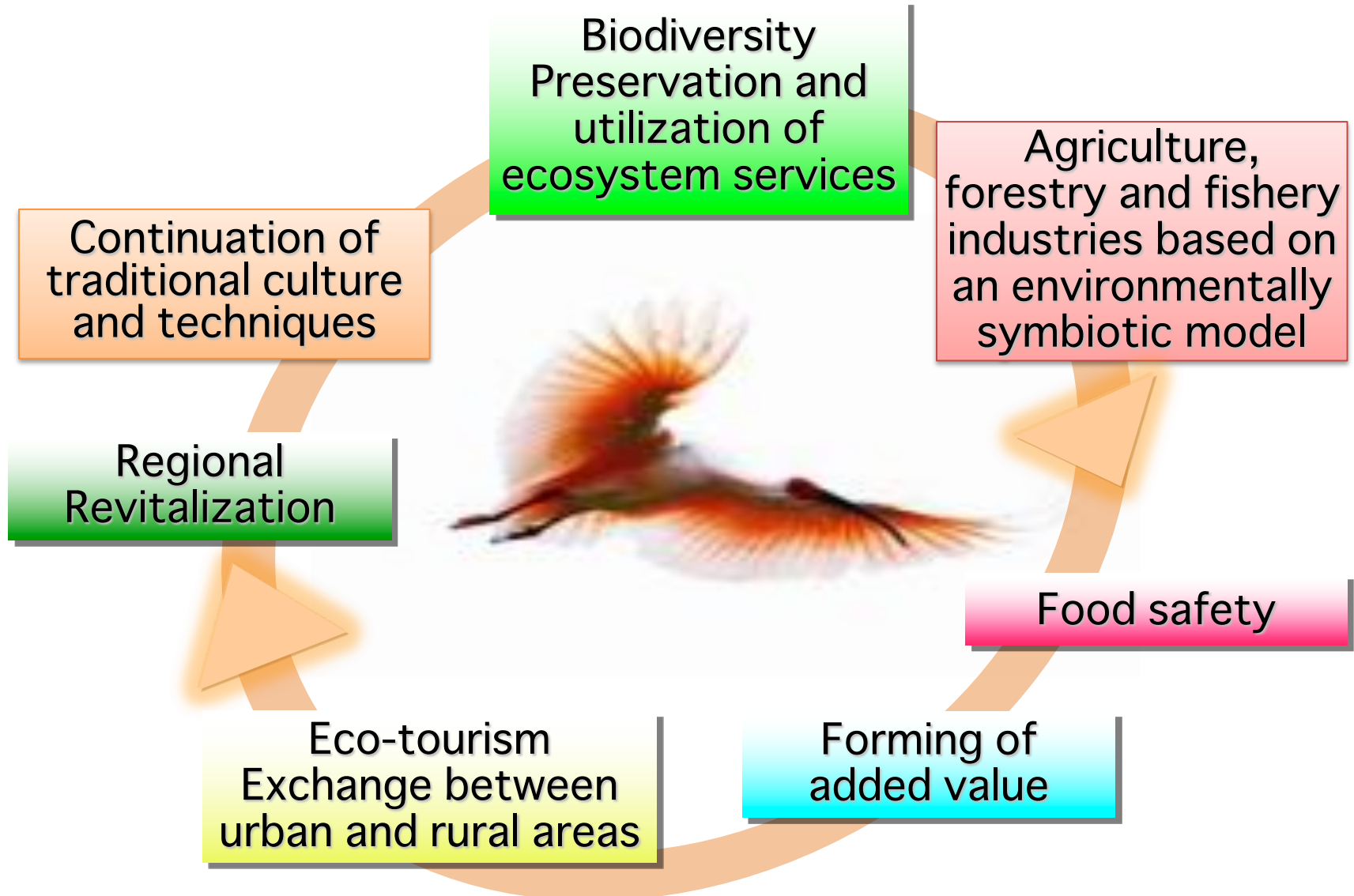
Under 45 years old

The “power of youth” is needed to begin turning on a positive spiral !

1. Environment friendly farmers
2. Business minded
3. Local/Global leaders

**Make use of
Noto's Natural and Cultural Resources**

Basic concept of human capacity building in Noto Satoyama Meister



Writing & Reporting : Graduation Theses (Graduating class of 2016)

Promotion of agriculture and forestry (4 theses)

- Aiming for hemp cultivation in Noto: traditional applications and new development
- Future development of Vejoule Limited Liability Company,
looking into the management status
- A new farmer's plan of becoming independent: to be a local leader
- Investigating the possibility of involving people with disabilities in the agricultural sector of Noto: looking into the own future

Cultivation/processing technologies (2 theses)

- Developing soil quality indicators for environmentally-friendly farming
- Adopting new varieties and cultivation system in pumpkin cultivation

Starting/operating a business (3 theses)

- Communicating the charm of Japanese paper: an attempt of a paper shop
- "Satoyama rescue" through firewood production:
conservation and resource utilization of Satoyama by various participants
- Trial production of cloth sandals focusing on their health effect and proposal of their application

Exchange/regional development (7 theses)

- Current status and future of Muslim travel in Noto
- Sake and inbound tourism in Noto
- Aiming to establish a tourism that increases repeat visitation to Suzu
- Potential of winter surfing as new tourist attractions in Suzu
- Implementing nature observation events in rice paddies engaging the five senses
- Starting regional revitalization from a long established sake brewery: illuminating Tsuruno Sake Brewery
- Current state and the prospect of natural farming in Hakui City

Regional research/environment (5 theses)

- Making Noto Peninsula a restaurant as a whole
- Movement of residents between local districts within Suzu City and locations where "migrants" from urban areas settle
- Understanding the nature of a village, focusing on its "sharing" culture
- Fostering emotional richness of children in the nature and culture of Noto
- Learning from soybean cultivation on ridges between rice paddies and soy-sauce production: considering a sustainable mechanism

Curriculum Features

(1) Understand nature and culture in Noto's satoyama and satoumi and their value

Learn and experience Noto's nature and culture on a multilateral and scientific level

(2) Learn about ecosystem services provided by agro-biodiversity

Follow up on the achievements made from education and research into satoyama and satoumi at Kanazawa University

(3) Capture the value of Noto's satoyama and satoumi on a global scale

Spread the word on Noto to the world through exchanges via the Globally Important Agricultural Heritage Systems (GIAHS) certification site, etc.

(4) Create connections between people

Spread networks of people from a range of different backgrounds and abilities with satoyama and satoumi as key words

Alumni of Noto Satoyama Meister

Oak tree cultivation and plant biodiversity

C. Oono, a charcoal producer, is producing high-value added and high quality charcoal for tea ceremonies.

He plants oak trees with volunteers every year in abandoned farmlands and manages the trees.



Oaks trees are repeatedly felled and germinated over an eight year cycle for use



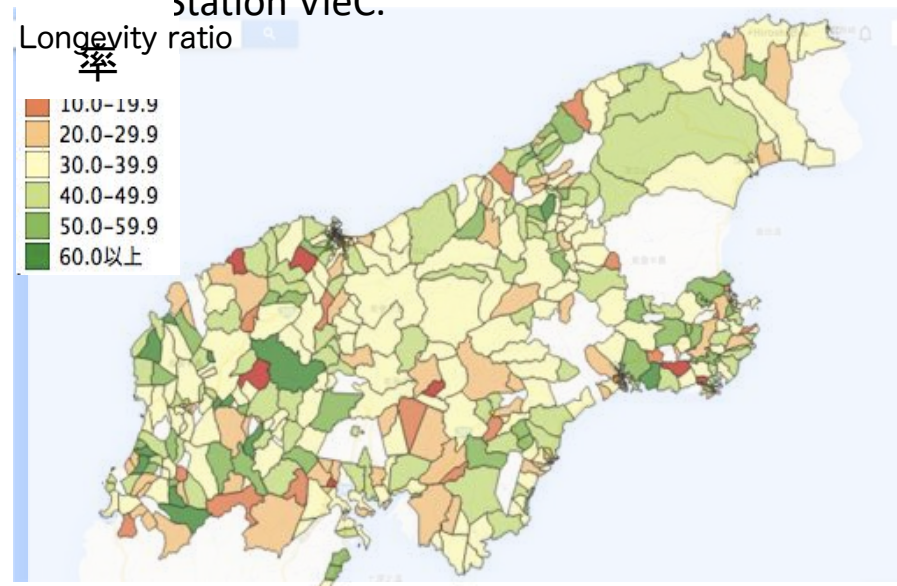


Relationship between longevity and diet in Oku-Noto

Aim: By carrying out this research on people's diet in areas of longevity in Oku-Noto, obtain dietary tips for preventing/curing lifestyle-related diseases and contribute in extending healthy life expectancy.

Hiroshi Mibayashi
Satoyama Satoumi
Meister
Class of 2014
Kanazawa Medical
Station VieC.

1. Calculated longevity ratio (**population 80 or over/population 65 or over x 100**) using small-area-data from 1995 & 2010 national censuses and created a map using QGIS
2. Interviewed on diets in the areas with high longevity ratio



Mapping of longevity ratio in Oku-Noto



Food in the area with high longevity ratio



Scenery of longevity area



Vegetable garden close to the house



Interview



Yoshinobu Sano
Satoyama Meister
Class of 2010
Engaged in forestry

Noto's essential oil project utilizing resources of Satoyama



Kuromoji (*Lindera umbellata*)

Building a business utilizing Noto's Satoyama

- protecting and managing Satoyama through resource utilization -

Noto's essential oil project

"Maintaining forest"

Carry out vegetation survey to understand the forest condition & consider sustainability of Satoyama resources

"Creating scent"

Develop essential oil products utilizing resources of Noto's Satoyama and carry out further research

"Providing healing opportunities & health"

Carry out a program using the essential oil produced in Noto, in cooperation with aroma therapists



Wood chipper



Steam distillation devices



活動事例: 地域リーダー人材

Alumni activities

Learning traditions of everyday life of Satoyama from the old farmers - *Maruyama-gumi* -

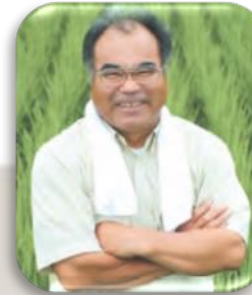
Y. Hagino, has organized Maruyama-gumi, a participatory workshop that aims to teach traditional knowledge and wisdom of Satoyama through fun engagement with agriculture, nature, traditions, food, education, health, welfare, and art.



Supporters' Networks

支援ネットワーク

Satoyama Professional Leaders 里山駐村研究員



里山研究員

山本茂行【里山ファミリーパーク】
吉田洋【(株)森保衛+ARCO建築・計画事務所】
車光紀子【(株)環境公害研究センター】
石原一彦【角田の里山メイト】
美馬秀夫【石川県環境安全部自然保護課】
松井正人【金沢市役所農林部農林基盤整備課】
西村純治【金沢市の里まねづくり委員会】

Satoyama Meister Supporters Network

里山マイスター支援ネットワーク



Collaboration and exchange



Noto Satoyama Meister Network:
Follow up of Graduates

Twinning of GIAHS

イフガオ里山マイスター養成プログラム

Ifugao Satoyama Meister Training Program (ISMTP)

Phase 1 (2014-16)

**Human Resources Development Program for the
Sustainable Development of Globally Important Heritage
Systems (GIAHS) Designated Site
“ Ifugao Rice Terraces” in the Philippines**



Phase 2 (2017-19)

**Strengthening GIAHS Twinning for Sustainable
Development of Communities in Ifugao Rice Terraces and
Noto's Satoyama and Satoumi**



**“GIAHS Twinning”
from Noto communique: Recommendation (5), 2013**

[illegible]

Noto Communique

Recommendations:

(5) Twinning of GIAHS sites between developed and developing countries



“GIAHS Twinning”
between Philippines
(Ifugao) and Japan
(Noto and Sado)
from Noto communique:
Recommendation (5), 2013

JICA Technical Cooperation for Grassroots Project (Special Program)
Human Resources Development Program for the Sustainable
Development of Globally Important Heritage Systems (GIAHS)
Designated Site “Ifugao Rice Terraces” in the Philippines
Ifugao Satoyama Meister Training Program

2014～2016(3yrs)

世界農業遺産(GIAHS)「イフガオの棚田」の持続的発展のための人材
養成プログラムの構築支援事業

略称『イフガオ里山マイスター養成プログラム』

JICA草の根技術協力(地域経済活性化特別枠)事業



Many years
ago



Apr. 2010

Deterioration of IRT
イフガオ棚田の荒廃

Ifugao Rice Terrace (IRT)



- UNESCO World Heritage (1995)
- FAO–Globally Important Agricultural Heritage Systems (GIAHS, 2005)
- World Endangered Heritage (2001)
→ Already resolved (2012)

Lacking of young farmers and unregulated tourism
→ Damage to landscape

Needs of capacity development of young generation

Visit to JICA Office at Manila (Jan., 2012)

DENR (FASPO) and FAO Manila Office (Nov., 2013)



Threats and challenges common to GIAHS

- ❖ Noto and Sado (Japan): Decreasing and ageing population
- ❖ Ifugao (Philippines): Decreasing young generation due to outmigration to urban areas and unregulated tourism



- ❖ Living in harmony with nature: environment friendly agriculture, agro-business, new commons and governance
- ❖ Exchange people between rural and urban areas
- ❖



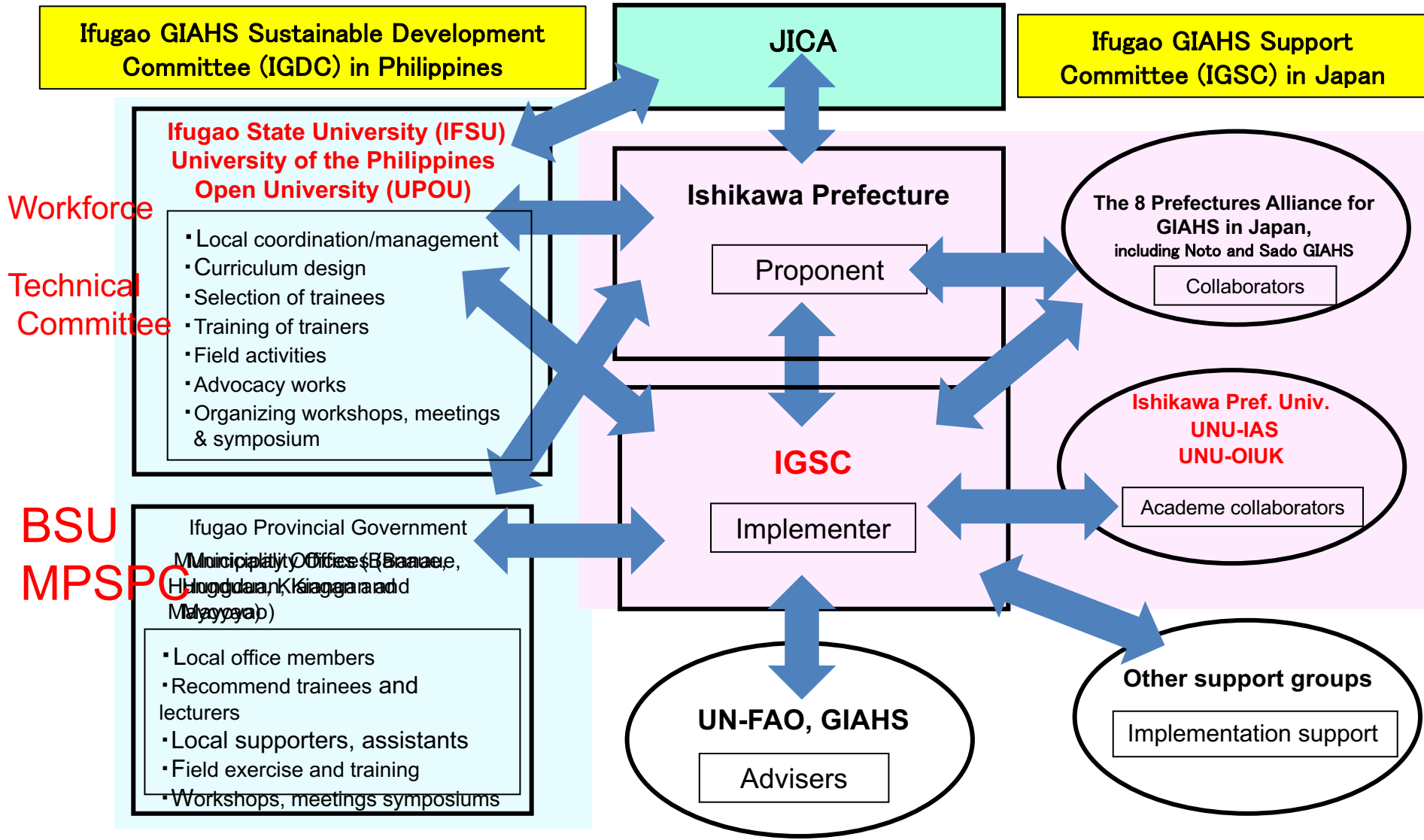
Key is : Human capacity building of young people



**Launching Ifugao Satoyama Meister Training Program
and Ifugao GIAHS Sustainable Development Committee
(Mar. 25, 2014, Ifugao State Univ.)**

Phase 2: 2017-19

JICA Grassroots Project for strengthening “GIAHS Twinning” between GIAHS designated sites, “Ifugao Rice Terraces (IRT)” and “Noto’s Satoyama and Satoumi” for sustainable development



66 graduates (4yrs, 2015-18)



Batch 1, 14 grad., 2015.3.9



Batch 2, 21 grad., 2016.3.15



Batch 3, 16 grad., 2017.1.26



Batch 4, 15 grad., 2018.3.9

ISMTP records

Phase 1 (2014-16) and Phase 2 (2017)

- Establishment of implement system: IFSU, UPOU (BSU, MPSCPC)
- Establishment of support committees: IGDC (Ifugao) and IGSC (Noto)
- Construction of IRT “GIAHS CENTER”, IFSU
- Monthly lectures and field works
- Number of trainees graduated (no. enrolled)
Phase 1 (Batch 1-3) = 51, Phase 2 (Batch 1) = 15 → Total 66
- Exposure trip to Noto and Kanazawa (about 20/year)
- Philippine/Japan Forums 4 times (2 times/year in Ifugao and Noto)
- Alumni network and follow up
- Mr Izumiya, Chairman of Ifugao GIAHS Support Committee (IGSC) and Suzu City Mayor, visited Ifugao in July 2016



IFSU IRT GIAHS Center
May 2017

Exposure trip to Japan (Noto and Kanazawa)

Ifugao Satoyama
Meister Training
Program Delegation
visited Kanazawa and
Noto Peninsula
(Sept .27 ~ Oct.3,
2015)



One thousand terraced
paddies in Wajima city, 30
Sept. 2015





Terraced paddies and farmer's shop in Mikohara,
Hakui city, Noto Peninsula (29 Sept. 2015)



Traditional hwooden
handicrafts in Wajima
city, 30 Sept 2015





Visiting Noto School,
the headquarters
building of Noto
Satoyama Satoumi
Meister Training
Program

30 Sept. 2015



Special features of ISMTP Training System

- University's initiative in collaboration with Provincial Government and LGUs, and other stakeholders
→ Academic and scientific, but not university courses
- High diversity (Trainees, Mentors, Stakeholders, etc)
- Mainstreaming
 - Satoyama and sustainability concepts
 - International platform (UNESCO World Heritage, GIAHS, IPSI, etc.)
- Training system
 - Intensive face to face mentoring (Trainee/Mentor)
 - Thesis writing, public presentation and review
- Networking and follow-up of alumni

Trainee's motivation to join ISMTP ?

- What is most inconvenient for you ?
- Human capacity building for upgrading **yourself** (as municipality staff, farmer, teacher, business person, etc.) **for your community, your country and the world**
- Networks and Platforms
- Life style: Urban vs Rural (Satoyama)

How to learn in ISMTP ?

Time is short, only 1 year, so that you must be careful and clever

You must select very carefully:

- Research subjects (objectives) → Title
- Background (motivation), introduction
- Approach and methods
- Results and analysis
- Proposal for the next plan after graduation (not “recommendation”)
- Follow-up system (needs and seeds)
- Trainee(s)/Mentor(s) relationship

*Learning in ISMTP is academic and scientific, **but not the university courses (BA, MA and PHd, etc.)**

Trainees' Graduation Research Subjects

For conservation and sustainable development of IRT
Satoyama, GIAHS, World Cultural Heritage

- Agriculture and cultivation (Organic ways)
 - Rice, crops
 - Livestock raising
- Agricultural processing (Branding, marketing)
- Environment and ecosystems
 - Global warming
 - Biodiversity
 - Indigineous endangered species
 - Alien pests and their control
 - Giant earthworm, kuhol, kiwitand, etc.
- Culture, traditional (indigenous) knowledge
- Eco-tourism, ESD (Education for Sustainable Development)



Subject of Ifugao Satoama Meister Training Program, Organic swine raising, July 2015

Progress of ISMTP alumni's activities



Yuyu (ドジョウ)
culture in IRT
(Jan. 2016)



ISMTP Phase 2 (2017-)

- Strengthening of ISMTP
 - Implementation of Ifugao Rice Terraces Assessment (IRTA), with particular Rice Terraces (e.g. Nagacadan Rice Terraces Assessment)
- Mutual exchange (GIAHS Twinning) for sustainable development of Ifugao Rice Terraces and Satoyama Satoumi
- Preparation for Phase 3 (2020-)

Key Questions of IRTA (Ifugao Rice Terraces Assessment)

- **What** are *Ifugao satoyama*, and **how** have they changed in the last 10-70 years (change) ?
- **How** have biodiversity and ecosystem services changed in *Ifugao satoyama* landscapes, and **what** are the main drivers (causes)?
- **Why** are changes in *Ifugao satoyama* a concern?
- **What** has been done to encourage *Ifugao satoyama* systems (Responses = countermeasures) ?
- **What** is the future *Ifugao satoyama* landscapes under plausible scenarios?

Goal of IRTA (Ifugao Rice Terraces Assessment)

- Provide scientifically credible and policy-relevant **information on IRT**
- Assessment of **current state of knowledge** (i.e. **a critical evaluation of information** on the interaction between humans and **ecosystem services** provided IRT)
- Outputs must be provided for **policymakers**.

Key Features of IRTA (2)

- Drivers (causes) of change
 - Indirect
 - Demographic (population)
 - Economic
 - Cultural
 - Science and technology
 - Socio-political
 - Direct
 - Land-use
 - Climate
 - Invasive species
 - Over-exploitation
 - Pollution
 - Under-use

Scope of IRTA















□ Time scale

- Drastic changes have occurred in IRT in the past 70 years since the end of World War II (or 10-50 years)
- Changes by
 - Destruction
 - Abandonment

□ Spatial scale

- Barangay, LGU, Province, Country

Changes in ecosystem services, direct and indirect drivers, and human well-being in IRT (see, JSSA, 2012): a preliminary table

Ecosystem services		Human use	Stock /flow	Indicators	Direct trivers	Indirect drivers
Provisioning	Rice					
	Yuyu					
	Native shells					
Regulating	Water -flooding control -water purification					
	Soil erosion					
Cultural	Festival					
	Ingenious knoledge					

Ecosystem Services			Human Use	Enhanced or degraded	Direct Drivers						Human well-being	
					Changes in land use		Under use	Overexploitation	Global/regional warming	Exotic species		Pollution
					Urbanization	Loss of mosaic						
Provisioning	Food	Rice	↗	↗	✓		✓		✓			+/-
		Livestock	↗	↗								+
		Matsutake mushrooms	↗	↘			✓					+/-
		Marine fishery	↗	↘	✓		✓	✓	✓		✓	+/-
		Mari culture	↗	NA	✓						✓	+
	Fabric	Material	↗	↗	✓		✓			✓		+/-
		Firewood and charcoal	↗	↘	✓		✓					+/-
Sericulture		↗	↗			✓					+/-	
Regulating	Air quality regulation		↗	+/-	✓		✓				✓	+/-
	Local climate regulation		↗	+/-	✓		✓		✓			+/-
	Water regulation	Flood control	↗	↗	✓	✓	✓					+/-
	Water purification		↗	+/-	✓	✓	✓				✓	+
	Soil erosion regulation	Farmlands and forests	↗	↗	✓	✓	✓			✓		+
		Coastal area	↗	↗	✓		✓					-
	Pest control and pollination		↘	↘	✓	✓	✓					-
Cultural	Spiritual	Religion	↗	↗	✓							-
		Festivals	↘	↗	✓							-
	Aesthetic	Scenery	↘	↗	✓							-
	Recreation	Education	↗	↗	✓							+/-
		Game-hunting/	↘	↗	✓							-
		Mountain climbing, sightseeing and green-tourism	↗	↗	✓							+
	Art	Traditional craft	↘	NA	✓							-
		Contemporary art	NA	NA								NA

Changes in ecosystem services, direct drivers and human well-being (JSSA, 2012)

Backed by Data

Without Supporting Data



A monotone increase (for human use column) or enhanced (for enhanced or degraded column) for the last 50 decades

A monotone decrease (for human use column) or degraded (for enhanced or degraded column) for the last 50 decades

No change (for human use column and enhanced or degraded column) for the last 50 decades

+ Enhanced in recent years

- Decreased in recent years

+/- Mixed (trend increases and decreases) over past 50 years or some components/regions increase while others decrease

NA Not assessed

✓ The direct drivers that have influenced ecosystem services

Types of Responses (examples)

(JSSA, 2012)

- Legal (Ordinance, regulation)
- Economic (Incentive, fund, eco-labelling)
- Social & behavioral (Family planning, public education, empowerment)
- Technological (conservation of biodiversity,
restoration of ecosystem services,
Improvement of energy efficiency)
- Cognitive (traditional knowledge, scientific research and its application)

**Results of the responses must be monitored
to check the efficiency**

Responses that are relatively effective in *satoyama* and *satoumi*

1. Sato (agricultural communities and lifestyles /agricultural land and rivers)	2. Mountains	3. Oceans
<ul style="list-style-type: none"> ● Land use plans ● Biomass utilization ● System of direct payment to hilly and mountainous areas ● Action plan for improvement of farmland, water, and environmental preservation 	<ul style="list-style-type: none"> ● Ordinance for <i>satoyama</i> conservation ● Forest environmental taxes ● Forest certification systems 	<ul style="list-style-type: none"> ● Act on Special Measures concerning Conservation of the Environment of the Seto Inland Sea ● Ordinance for <i>satoumi</i> conservation ● Ocean pollution prevention ● Water quality regulations
4. Biodiversity	5. All areas	
<ul style="list-style-type: none"> ● National Biodiversity Strategy ● Local Biodiversity Strategy 	<ul style="list-style-type: none"> ● Environmental Impact Assessment Law ● The NPO Law ● Nature restoration projects ● Scientific research by local University and government ● <i>Satoyama</i> Initiative ● Re-building of regional cooperative bodies (New Commons) 	

Types of Responses

- Legal
- Economic
- Social & behavioral
- Technological
- Cognitive

Launching **Satoyama Meister Training**
Programs in Noto and Ifugao is one of the
most effective **RESPONSES** against the
challenges in these GIAHS

What is the future for *satoyama* and *satoumi* landscapes under plausible scenarios?

❑ **4 scenarios** describing the plausible future **in 2050**.

❑ **Qualitative approach**

❑ **Two axes to identify future developments**

- Governance and economic development: **Global vs. Local**
- Ecosystem service management: **Technology oriented vs. Nature oriented**

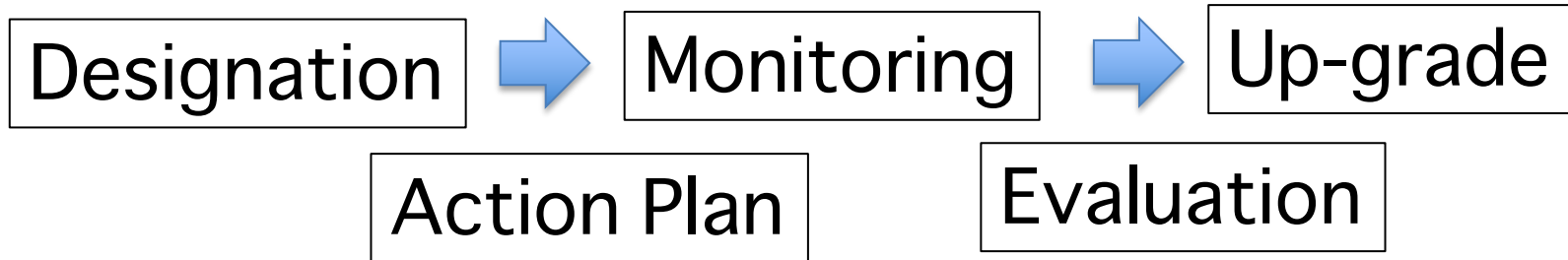


(JSSA, 2012)

International, national and other
“designation” :

GIAHS、BR,,

“Real part” starts after the designation



“Advertisin
g sign”

Governing structure
Network
Experts
Multi-stakeholder
Multi-municipality
Bottom up



Noto Satoyama Meister delegation to Ifugao. Jan. 18, 2018

Human Capacity Building by utilizing
Natural and Cultural Resources in GIAHS



More Local involvement



Mainstreaming
Networking and exchange



Outcomes

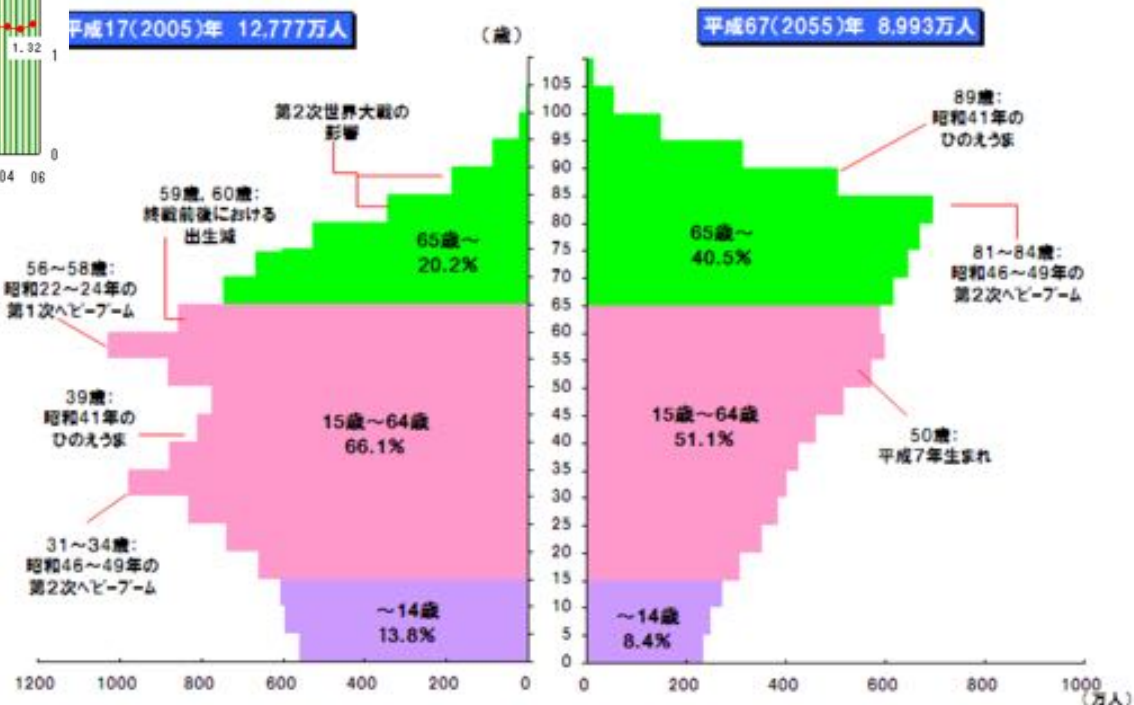
- (1) Upgrading capacity of trainees and alumni
- (2) Empowerment of Local Communities

Japan's Satoyama Satoumi in 2050 ?

Aged, depopulation → Under-management → Lower Ecosystem Services ?



資料：「人口動態統計」
厚生労働省大臣官房統計情報部



More
Urbanization ?

Birth rate ranking (184 countries)

- 1 Niger 7.60
- 66 Philippines 2.98
- 84 Indonesia 2.46
- 154 China 1.56
- 172 Japan 1.42
- 184 Korea 1.21
- Taiwan 1.00

Local variation in Japan: Tokyo is worst !

Inconvenient truth in Japanese Agriculture

日本農業の危機

- High average age of farmers (67 yrs old) 農家の平均年齢 67才
- Small-scale farming 零細な経営規模(1戸あたり農地面積、ha)
日本(1.8)はアメリカ(178.4)の約1/99
- Global/local circumstances are challenging
- Small GDP in Agriculture is only 1.15%
GDP: 農林水産業は、日本全体の1.15%
- Lower income from agriculture than industries
GDP: 農林水産業は、日本全体の1.15%

High potential values of Satoyama Satoumi as resources

GIAHS、ERAHS's networking and exchanges

Human capacity building for young generation

里山里海の自然資源、文化資源の価値、GIAHS・ERAHSのネットワーク
若手人材の養成が急務

Challenges and future directions in ISMTP

- Japanese side (Kanazawa University etc.) **supports** the launching of “Ifugao Satoyama Miester Training Program (ISMTP)” by adapting the applicable knowledge and learning of Kanazawa University’s Noto experience to IRT.
- **Self-sustainability of ISMTP** is to be established, in the near future, by IFSU, UP-OU, local governments and other stakeholders of IRT.
- **Bilateral relationships and equal partnership** are important (e.g. Cost-sharing, local involvement ▫ ▫).

Message

Japan finds itself in the position of a “developed” country, **facing many serious challenges**, which other countries will one day also be facing.

We, Japanese, have been tackling this issue by participation in **the international networks and platforms** such as IPSI and GIAHS as well as collaboration with local communities

Human capacity building of **young generation** is the key to overcome the challenges



Launching Ifugao GIAHS Sustainable Development Committee (IGDC) and Ifugao Satoyama Meister Training Program ISMTP (Mar. 25, 2014, Ifugao State Univ.)

Thanks for your kind attention



Courtesy visit to Mr. Izumiya, Chairman of Ifugao GIAHS Support Committee (IGSC) and Mayor of Suzu city (Sept. 2014)