Non-timber forest products as an alternative revenue to timber in Taiwanese forests

Balance Between POPULATION and SUSTAINABILITY in a Small Island

Fen-Hui Chen
Location

http://taiwanpedia.culture.tw/web/content?ID=1403

http://en.loadtr.com
Location
Location
Location

- 14,000 mi² (1/7 Oregon)

[Map showing the location of Taiwan, including major cities and the Philippine Sea.]
Location

- 14,000 mi² (1/7 Oregon)
- 1/2 land > 3,300 ft
Location

- 14,000 mi² (1/7 Oregon)
- 1/2 land > 3,300 ft
- Ocean to 10,000-ft mountain < 2 hr
Population: 23.5 million (6X Oregon)

Forest Coverage Rate: 60% (1/11 of Oregon area)
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Forest Coverage Rate: 60% (1/11 of Oregon area)

- National: 92%
- Public: 0.3%
- Private: 6.9%

Population vs. Sustainability
• Typhoon
• Earthquake
• Steep+unstable
• Typhoon
• Earthquake
• Steep+unstable
• Typhoon
• Earthquake
• Steep+unstable

• Erosion
• Landslide
NO LOGGING IN TAIWAN

Sustainable Management Concept

Conservation Concept

1990 Prohibit cutting in natural forest

1989 Wildlife Conservation Law

1982 Cultural Heritage Preservation Act

1972 National Park Law

1932 Forestry Act
NO LOGGING IN TAIWAN

Sustainable Management Concept

Conservation Concept

Integrated Management Concept

1932 Forestry Law

1982 National Park Law

1990 Wildlife Conservation Law

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AGROFORESTRY

Why Agroforestry in Taiwan?
AGROFORESTRY = AGRiculture + FORESTRY

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Why Agroforestry in Taiwan?
Agroforestry practices
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- Silvopasture
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- Alley Cropping
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- Windbreaks
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• Forest Farming (Multistory Cropping) = under-forest economy
Agroforestry practices

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• Alley Cropping
• Riparian Forest Buffers
• Windbreaks

• Forest Farming (Multistory Cropping)
  = under-forest economy
Forest Farming/Under-Forest Economy

American ginseng
Forest Farming/Under-Forest Economy

The cultivation of high-value specialty crops, i.e. medicinal, culinary, and ornamental plants, under the protection of a forest canopy.
Forest Farming/Under-Forest Economy

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Definition

- **Non-timber forest products (NTFPs)**: plants, fungi, and other biological material that are harvested from natural or manipulated forests and used for their commercial or personal value.

- **Special forest product (SFP)**: products collected from the National Forest System land.

- **Forest farming**: the cultivation or management of understory crops within a forest.
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• **Special forest product (SFP):** products collected from **National Forest** System land

• **Forest farming:** the cultivation or management of **understory crops** within a forest
Can I pick wild berries?
Regulations + Permits

NTFPs

Federal

National forest

BLM

National Park

OR

WA

State

Tribe

Willamette

Mt. Hoot

Gifford Pinchot

Redwood

ODF

DNR

WDFW

ODF

DNR

WDFW
Special Forest Product Permit

• An authorization to remove products from National Forest System lands
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• Usually required
• Prices vary
• May be valid only on the forest where permit was issued
• Permit does not guarantee successful harvest
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Gifford Pinchot NF
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2018

Bough: USD$261,000
~43% SFP
Gifford Pinchot NF

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~13% SFP
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Providing the public the opportunity to harvest placing limits to ensure sustainable harvest and protect resources
BLM offers new permit system to hunt Oregon truffles

Zach Urness, Statesman Journal
Published 11:50 a.m. PT Nov. 24, 2015 | Updated 1:56 a.m. PT Nov. 25, 2015

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The Salem District of BLM became the first agency to allow harvest of truffles on federal land with a permit, opening the door to a more regulated search for the tasty morsels coveted by restaurateurs.

The permits are only open to those who hunt truffles with a trained dog on specific patches of Salem BLM’s 403,000 acres in the Coast Range and Cascade foothills. It will remain illegal to dig them up with a rake, which is popular but is seen as damaging to the environment.

The cost of permits is $44 per pound, which seems like a bundle until you consider harvesters can sell some varieties of truffle for prices as high as $400 per pound.
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• The cost of permits is $44 / pound
• Harvesters can sell truffle as high as $400 / pound
Harvest of NTFPs may be restricted

- Quantity
- Specific Method
- Specific Location
- Permit Length (number of days the permit is valid)
- Season of Use
Non-timber forest products
Oregon Woodland Cooperative
Non-timber forest products
Oregon Woodland Cooperative

Creative!
Agroforestry ~ compromise way

- Partial agricultural crop production for short-term income
Agroforestry ~ compromise way

- Partial agricultural crop production for short-term income
- Partial planted trees for long-term forestation
Agroforestry ~compromise way

– Partial agricultural crop production for short-term income
– Partial planted trees for long-term forestation
– Regulations +Permits in Taiwan
Thank you for your attention
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