Local breeds landscape management
Case study from Slovenia
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ERFP
European Regional Focal Point
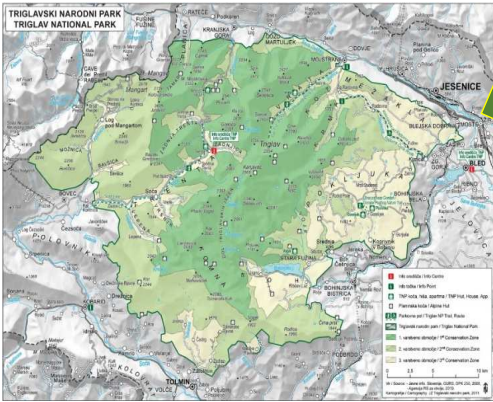for Animal Genetic Resources

INSTITUT DE L'ELEVAGE idele

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Animal genetic resources in Triglav National park

1.6 mi. visitors per year

Conflicting problems

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Some facts - Triglav National park (TNP)

Named by its highest peak, Triglav (2864 m a.s.l.).

National park (first protected area founded in 1924):
- IUCN category II (national park),
- Category V (protected landscape),
- Julian Alps Biosphere Reserve (UNESCO MAB),
- Natura 2000 area.

Geographically, historically, climatically:
- the north-eastern part (the Highlands - Gorenjska), with a harsher climate, history and characters of villagers,
- south-western part (Bovško) with the influences from the sub Mediterranean climates.

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TOTAL SURFACE

Area: 83.982 ha, 52.965 ha (63%) forests:

- **First protective regime: 31.488 ha, 22.422 ha forests**

(permitted activities - traditional grazing in high-altitude areas; conservation of the cultural heritage of alpine grazing)

- **Second protective regime: 32.412 ha, 17.980 forests**

(traditional natural resource use permitted-sustainable agriculture and forestry, sustainable wildlife, fish management)

- **Third protective regime: 20.082 ha, 12.563 forests**

(primary objective-protection and conservation of natural resources, cultural heritage, promotion of sustainable development)

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AGRICULTURE

- **LFA** for agricultural crop production in Slovenia.
- Crops grown **mainly in valleys**.
- Mountains alpine pastures predominate.
- Traditional use of alpine pastures-medieval times.
- Created unique alpine meadows, pasture cottages, forests landscape, limited crop production areas.
- Local breeds - distinctive characteristics that enables them to cope with harsh environment and climate change.
- Increase the resilience of production systems to the effects of climate change.

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DREŽNICA GOAT in TNP

762

Population:
rams: 130 ewes 800
total: 930

Status:
Critically endangered

Incentives
27 breeders
501 animals

https://www.tnp.si/sl/spoznajte/kmetijstvo/avtohtone-pasme/

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Characteristics - DREŽNICA GOAT

- Traditional alpine production system - indoor rearing in the winter, free-range grazing during the summer time.
- Adaptation to the hard conditions, allows the breed to survive without human help.
- Important source of meat, milk, dairy product, source of income for poor farmers and families.
- Many prohibition of goat grazing.
- Poor people cow was not abandoned.
- Today - two types are developed:
  - milking goats in the Bovec area,
  - meat goats in Dreznica area.
- Goat milk is mixed together with cattle milk and unique dairy products and excellent cheese are made.
- Max. 384 l milk/lactation, daily gain: 152-333g

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BOVEC SHEEP in TNP

Between 1924/25, the sheep population in Bovec area was 13.856

Population:
rams: 3.036
ewes 2.900
total: 136

Status:
Critically endangered

Incentives
18 breeders
1.949 animals

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Characteristics – BOVEC SHEEP

- During summer - traditional mountain pastures.
- Breeding goal - adaptation to harsh grazing and breeding conditions.
- Well adapted on harsh alpine environment, which influence quality of milk.
- Lambing once per year, twins are not rare.
- Milking per lactation =270 kg, 6.3 % fat and 5.5 % protein content.
- Distinctive dairy breed - main product is cheese first mentioned in 1178.
- Geographical protection of origin - "Bovec sheep cheese".
- Test and smell is full, aromatic and slightly spicy. The cheese is aged for at least 60 days, but it can be older.
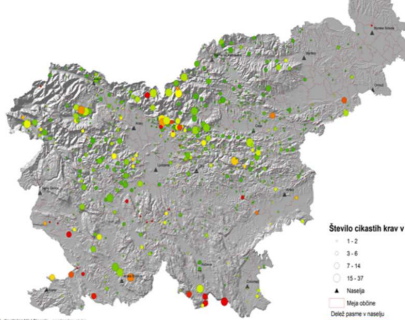
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CIKA CATTLE in TNP
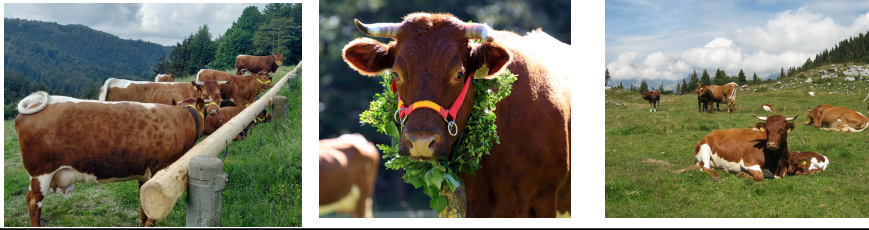
Population: cows 2.298
bulls: 96 total: 5.955

Status:
Endangered

Incentives
346 breeders
2.440 animals

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AnGR – CIKA CATTLE

- Slovenian Cika cattle – only native cattle breed.
- It was cross-bred with other cattle breeds – thanks to stubborn breeders it was conserved in the high mountains.
- Described in 1872 - small cattle with light bones and light body weight between 225-280 kg.
- Small animals were selected, appropriate for the high mountains with lower feed requirements during the harsh winters.
- Heavier animals were sold to the farmers in lowlands.
- Mainly they are bred for meat production, only some the breeders are still using them for milk - originally.
- Animals today are heavier, but still lighter than other traditional breeds and therefore appropriate for the mountain pastures.
- Suitable for organic farming, well adapted to high mountain pastures, almost 0 veterinary costs, relatively good milk yield.
- Even with modest feeding, meat is of excellent quality with less fat.

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AnGR – CIKA CATTLE

- Cow`s ball in Bohinj - special event with a very long tradition and celebrate the end of the grazing season. A
- In 1950s - a celebration for wider public and today, nearly 10 000 visitors including tourist visit the fair.
- It's one of the most recognized tourist event in Slovenia and has been mentioned in the two world's greatest travel guides (Frommer's 300 Unmissable Events and Festivals Around the World and Lonely planet A Year of Festivals).
- Introduction of life and work on the mountain pastures and to greet the livestock and herdsmen.
- Cika cattle, herdsmen and Alpine dairymaids are in the spot of the festival.

During the Covid-19 virtuall event
https://www.facebook.com/lakebohinj/videos/1052285385203796/.

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Conclusion

- In marginal environments, where food and feed production is limited, locally adapted genetic resources provide food security and source of income for the local communities.

- All 3 AnGR in TNP are well adapted to the local conditions, also some of the breeds have been developed and conserved in this area.

- Traditionally breeders were also use them for prevent avalanches.

- Grazing prevents overgrowing and conservation of mountain pastures.

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- All breeds have unique characteristics, such us disease resistance, tolerance to climatic extremes, low consumption, and/or the ability to supply specialized and high quality products.

- This characteristics will help them to cope with challenges of climate change and hence potentially increase the resilience of production systems to the effects of climate change.

- Traditional landscapes and diversity of genetic resources play an increasingly important role in attracting tourists, which creates additional income for mountain regions.

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