Eine Zukunftsaufgabe in guten Händen

Bundesamt für Naturschutz

Prunus africana: The perspective of importing countries

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Why are Importing Countries Involved?

Convention on International Trade in Endangered Species of Wild Fauna and Flora

- Dec. 17.250 asks explicitely for involvement of importing countries

- CITES Article XIII allows parties to implement stricter domestic measures

The EU has chosen this option and i.a. requires import permits for App. II species (incl. NDF)

- Responsibility of importer:

EU is main importer of Prunus: with imports of 976 t of dry bark in 2016 originating from Cameroon, Democratic Republic of the Congo and Uganda

Trade in *Prunus*: Rich History

CITES

- Listing in 1995 on CITES App. II
- RST CoP11 in 2000 and CoP16 in 2013

Range States

- from 0-Quotas to National Management Plans
- Inventories for many areas

EU/SRG

- 115 decisions at 40 SRG meetings since 2004

What is missing?

Elements of Sustainable Harvesting

Ressource assessments/Inventories

Adequate harvest volumes (Quotas)

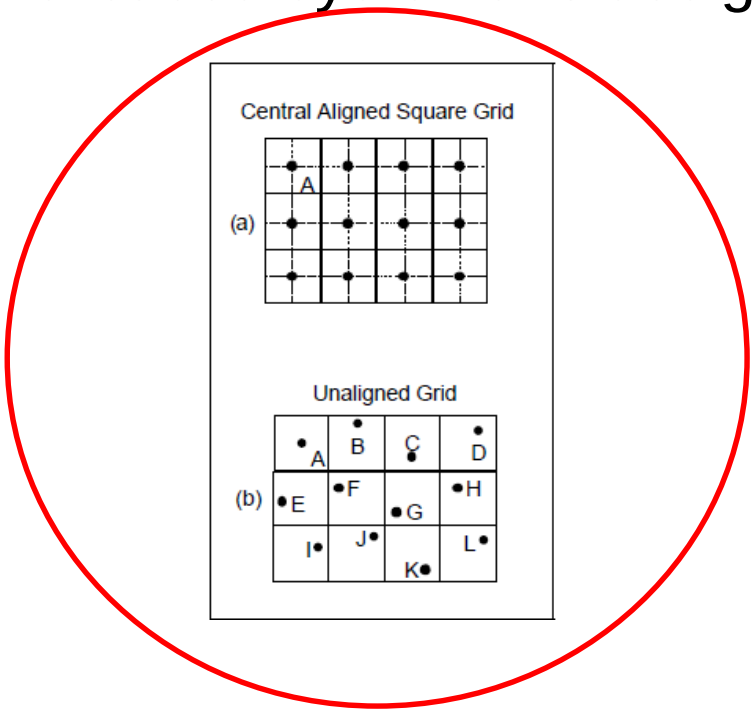
Adaequate harvest techniques

Monitoring
(efects of harvest on populations; volumes)

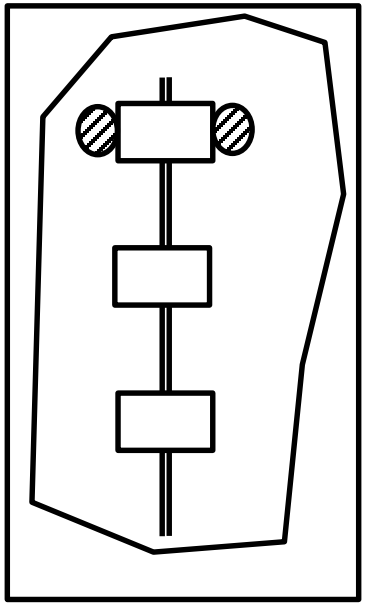
Governance
(incl. techniques/quotas/chain of custody)

Ressource Assessments/Inventories

Grid-based systematic design



Adaptive cluster sampling



- As exact as possible (scientificly sound)
- Good cost-benefit ratio/predictibal costs
- The less precise the more precaution required for harvest volumes (quotas)

Adequate Harvest Volumes

Burkhart Equation

$Vb = (Dm^2/4 \times \Pi \times H) - (Dm - 2t)^2/4 \times \Pi \times H$

Where: Vb= Volume of bark

Dm= Mid height diameter (average of diameters at different heights using a relaskope

t = bark thickness

H = Trunk height (up to first branch)

Π = 3.1416

+

$Q_n = \Sigma Q$ Kg dry weight equivalent

$Q_{pau} = \frac{A_{pau} \times P_{ae} \times RME_d \times Y_t \times P_{te}}{F_h}$ Kg dry weight equivalent

Where:

Q_n = Annual Quota (Kg Dry weight equivalent)

Q_{pau} = Annual Quota per PAU (Kg Dry weight equivalent)

A_{pau} = Area of PAU (Prunus Allocation Unit) (Hectares)

P_{ae} = Proportion of Area Exploitable in PAU (Percent)

RME_d = Reliable minimum estimate of density in PAU (Stems per hectare)

Y_t = Average yield per tree in one harvest (Kg dry-weight equivalent)

P_{te} = Proportion exploitable trees (alive & not over-exploited) (Percent)

F_h = Number of years between harvests (8 Years) (Years)

(Source: Nkeng, Ingram, Awono – 2010 (CIFOR)

Simple Equation

Ms = average mass of dry bark/per tree [kg]

+

Qa = Tr x Ms

Where: Qa = annual quota

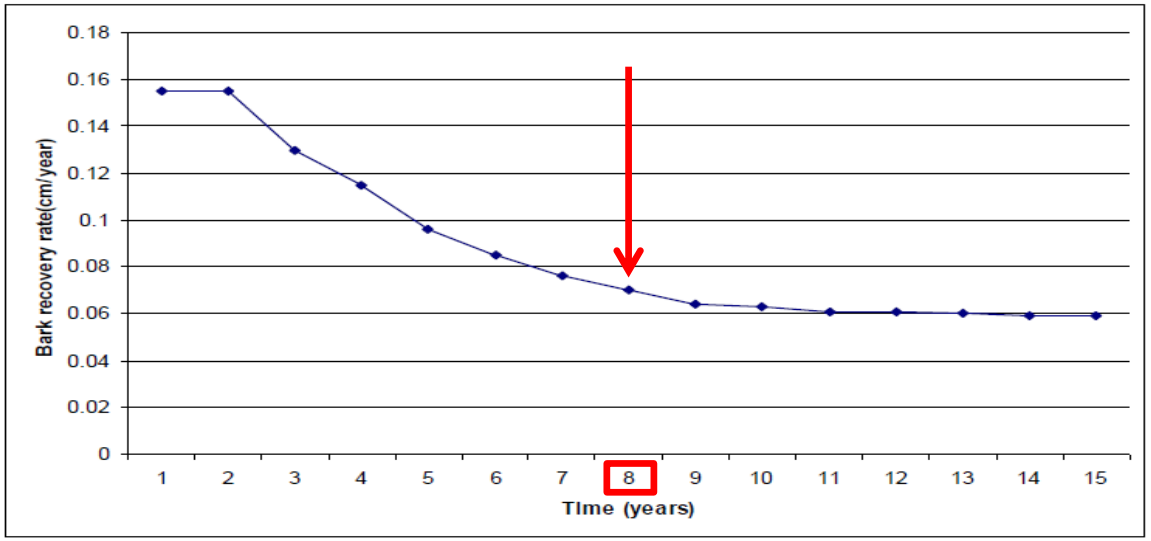
Tr = No of harvestable trees

Ms = average mass of dry bark/per tree [kg]

- As close to individuel population as possible (scientificly sound)
- Needs relevant parameters from inventories
- The less precise the more precaution required for harvest volumes (quotas)

Adaequate Harvest Techniques

- Two quarters technique
- Bark recovery (area recovered and thickness)



(Source: Nkeng, Ingram, Awono – 2010 (CIFOR)

Rotation cycle of 8 years

- New bark needs to be regrown before harvest of second two quarters
- Potential slower regeneration than average and/or mortality will reduce volumes of harvest of second two quarters

Monitoring

Harvest system is based on assumptions which need to be tested:
Adaptive management is required:

- Monitoring effects of harvest on individual trees
- Monitoring effects of harvest on populations
- Monitoring of trade (chains)

These information influence

- Calculation of harvest volumes
- Harvest technique and rotation cycle
- Governance

Governance

- Harvesters stick to rules for harvest/harvest areas
- Maximum harvest volumes are not violated
- Control of chain of custody is in place (= traceability)
- Trade has to be of legal origin