

Standardisation and certification

Prerequisites for international biofuel trade



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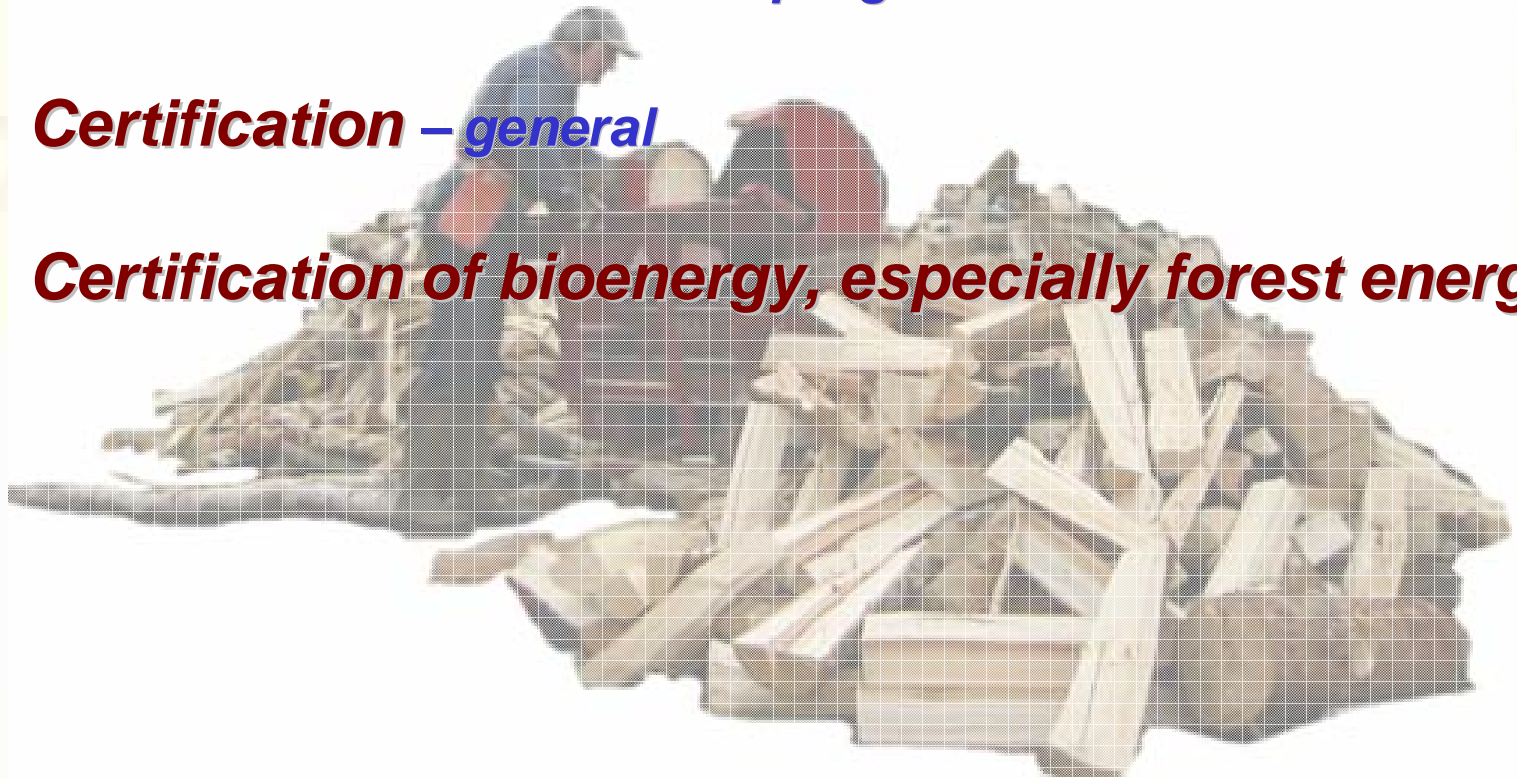
Presentation outline

Standardisation vs Certification

Standardisation – current progress

Certification – general

Certification of bioenergy, especially forest energy



Standardisation & certification are related...

The basic idea is to minimise friction of transactions

Measures, properties, procedures etc are defined and agreed beforehand

Through S & C the customer is guaranteed that a product or service incorporates certain properties

Thus, these properties do not have to be independently investigated for every transaction

Standardisation vs certification...

Standardisation

Part of industrial paradigm

Normally (traditionally) objectively measurable criteria

Dominated by agencies and/or institutions

Certification

Guarantee of criteria that are not easy to measure on the product

For land based products:

Policy, goodwill and PR-related

Unclear or developing criteria

Dominated by NGOs

Standardisation – current progress

**European Committee for Standardisation (CEN)
Technical Committee 335 (Solid Biofuels)**



Technical classification of biofuels

preparing some 30 technical specifications for solid biofuels including classification, specification and quality assurance of solid biofuels

CEN classification based on origin and source

(as woody biomass, herbaceous biomass, fruit biomass and mixtures)

Detailed technical material characteristics

(for major traded forms such as briquettes, pellets, olive cake, wood chips, hog fuel, logs, sawdust, bark and straw bales)

Significant properties

E.g. calorific value, dimensions, mechanical durability, moisture, ash and sulphur content is covered and classified by the standard.

The specification will be open

Producer and consumer can make case-specific agreements on specifications that may be objectively controlled

CEN standard will simplify transactions and assure overall quality

Important as international biofuel trade increases



The new standard will be coupled to

CEN/TS 15234 (fuel quality assurance and quality control)

Thus,

- **traceability is guaranteed**
- **the full supply chain is controlled and specified**



Certification - general

Certification is not new

UL in the US have been providing safety certificates for a century

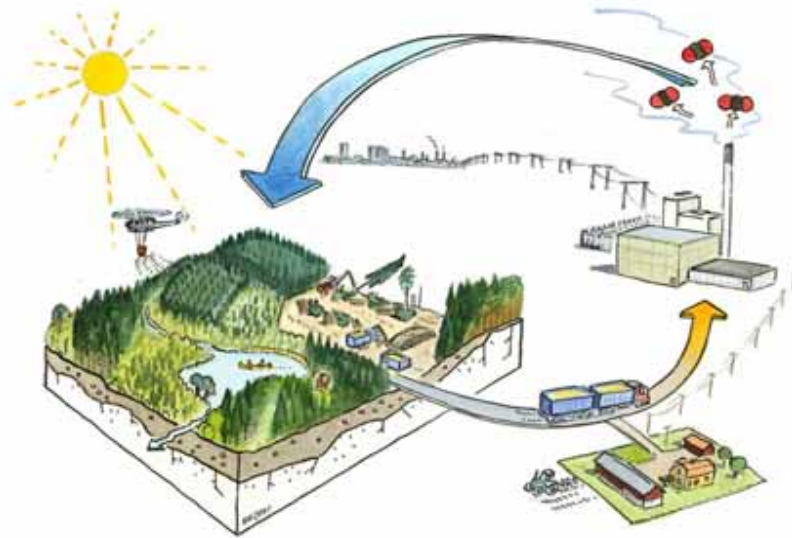
Main elements of certification

- **Standards** - to be met by a party wishing to be certified
- **Certification** - the procedure of checking that standards are met
- **Accreditation** - the procedure of checking competence and credibility of the organisations undertaking to certify

Certification – land based products

Certification aimed at sustainability, divided into

- **Ecological issues**
- **Social issues**
- **Economical issues**



... Chain of Custody approach



Traditional standards...

The ISO 9 000 and ISO 14 000 families

ISO 9 000 addressing quality management

ISO 14 000 addressing environmental management

EMAS addressing environmental management and improvement

These standards are evaluating the structure and methods of work rather than setting actual levels

Limited public impact and credibility

Accreditation

NGOs carry credibility – public institutions do not



After certification, products may be labelled

Forest certification

Some 20 different certification standards...

PEFC – Programme for the Endorsement of Forest Certification
130 M ha worldwide endorsed, variable standards

FSC – Forest Stewardship Council
60 M ha in 75 countries world-wide, own standard, large scale

CSA – Canadian Standards Association
30 M ha, local standards, no benchmark

SFI – Sustainable Forestry Initiative
60 M ha, low profile in social issues

AFS (Australia), CERFLOR (Brazil), Certfor (Chile), MTCC (Malaysia)
10-15 M ha, very variable, often incomplete/lacking parts

Certification - bioenergy

Certification for bioenergy...

Based on the three pillars of sustainability

Internationally acknowledged

Not a stand-alone system – couple to existing standards

... for forest energy: FSC; CSA; PEFC etc

But this is not enough...

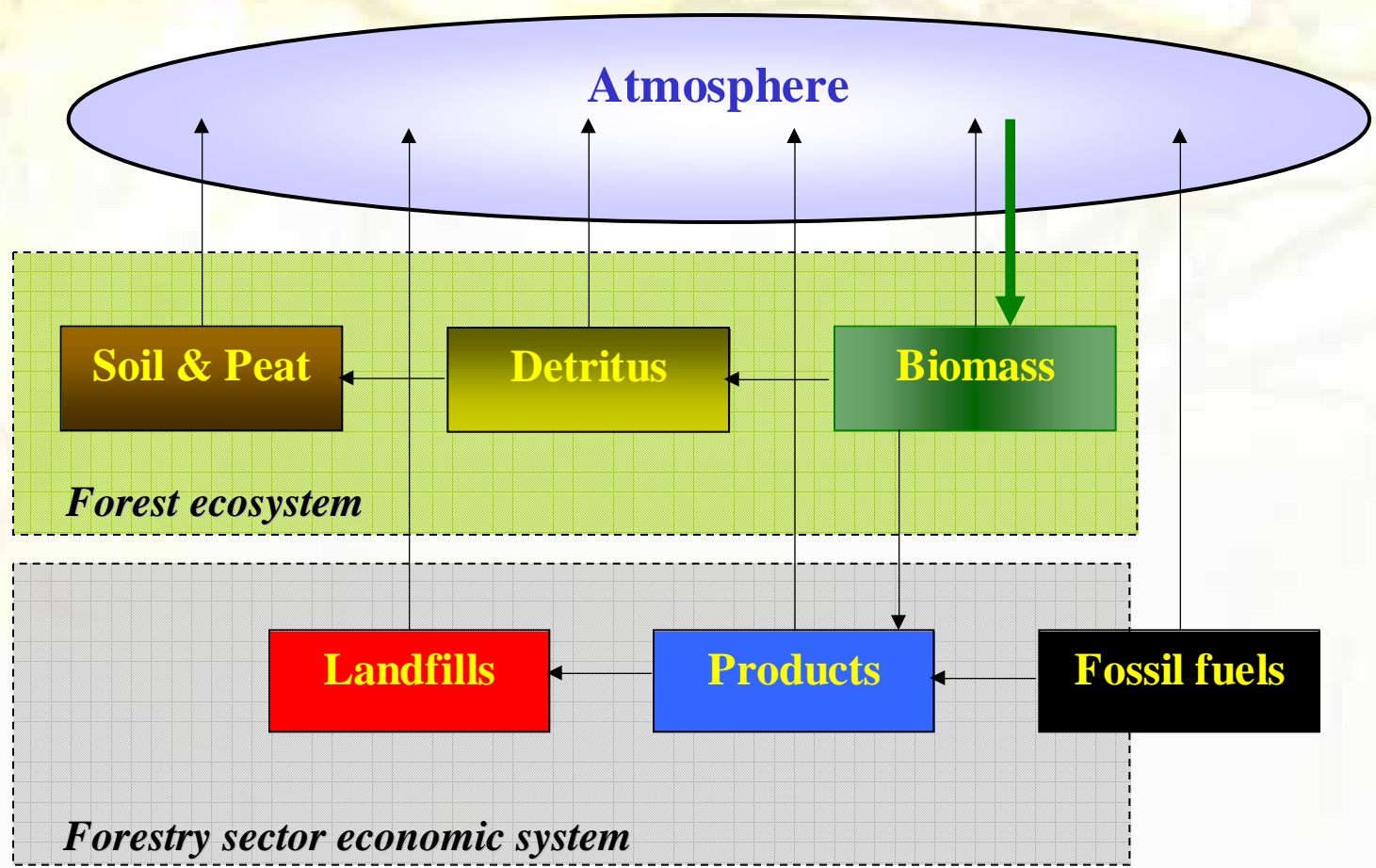
The principal driver behind the development of bioenergy systems is to reduce GHG emissions

and

The rationale behind this drive is to reduce any negative effects of climate change

Efficiency of alternative biomass-based solutions must be incorporated in order to enable prioritizing, ranking and evaluation from a 'climate-change perspective'

Carbon cycles and carbon balance



...bioenergy is only part of the strategy

Conclusions

We need to standardise and certify bioenergy to

- ensure public acceptance**
- simplify and rationalise international trade**
- render GHG control more effective**

Global problems need global standards

IEA should engage to promote sound certification

Sustainability (T31 core) is a key issue