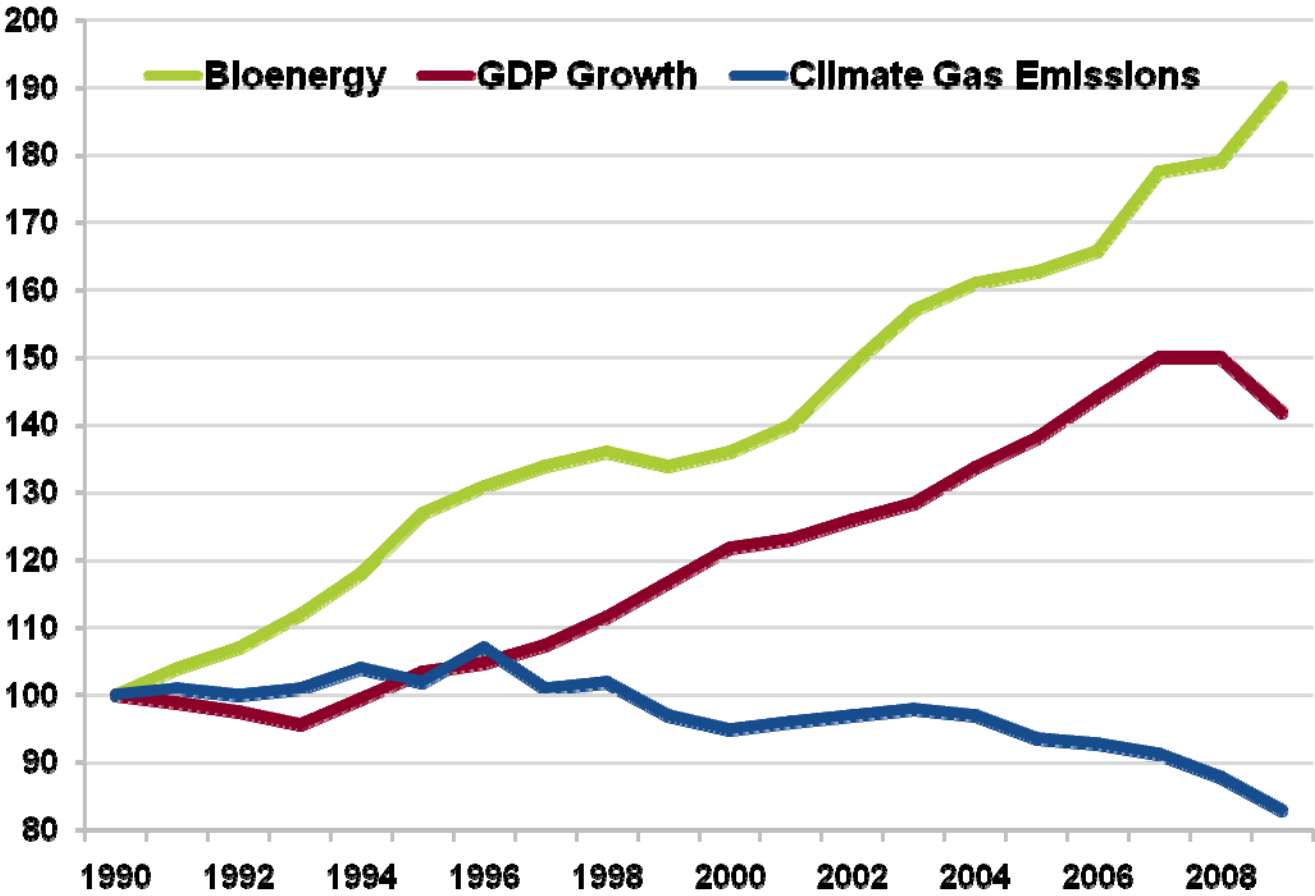

Sustainability of solid biofuels – a practical system is needed to guarantee supply

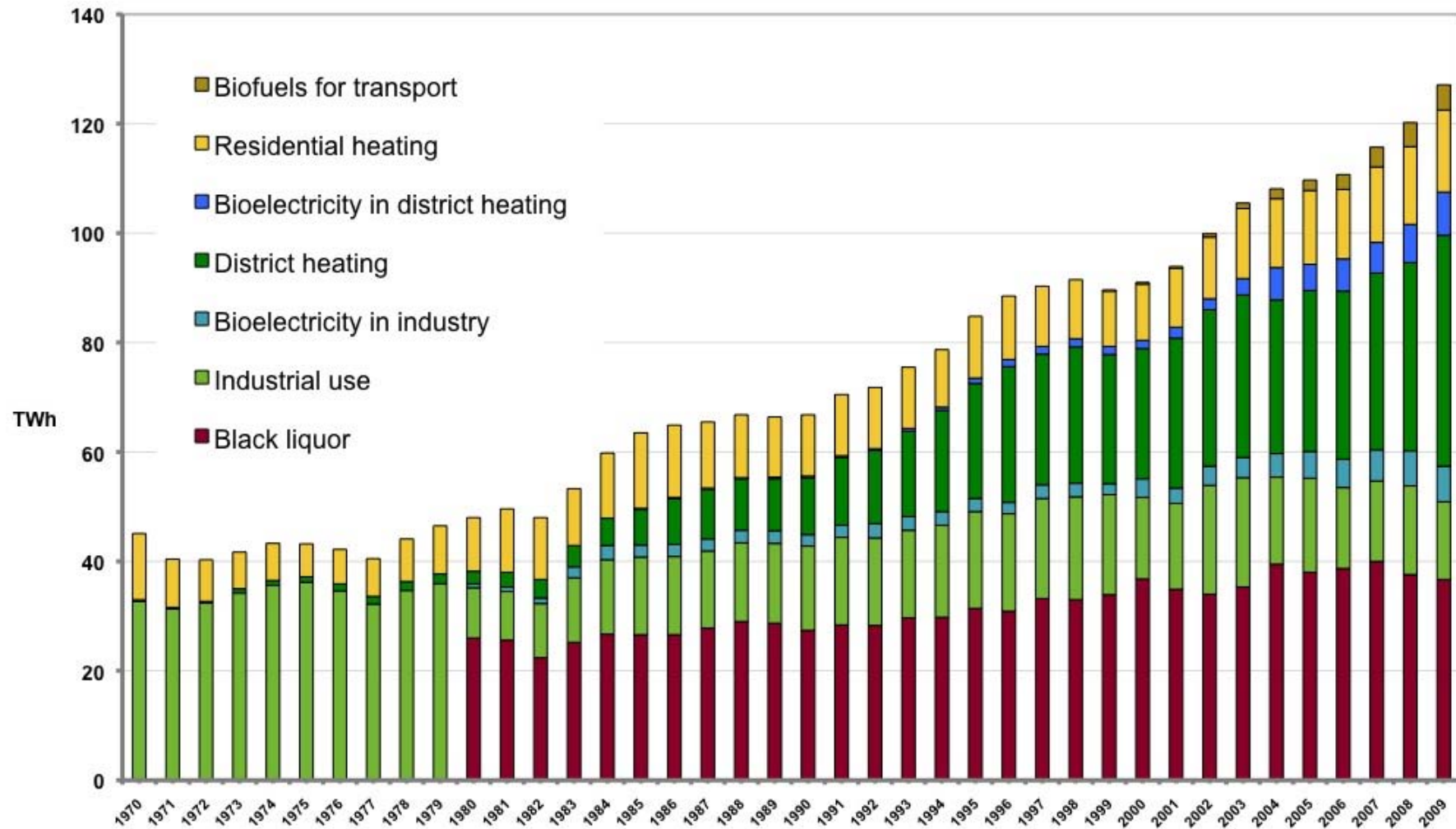
Kjell Andersson

Svebio – Swedish Bioenergy Association

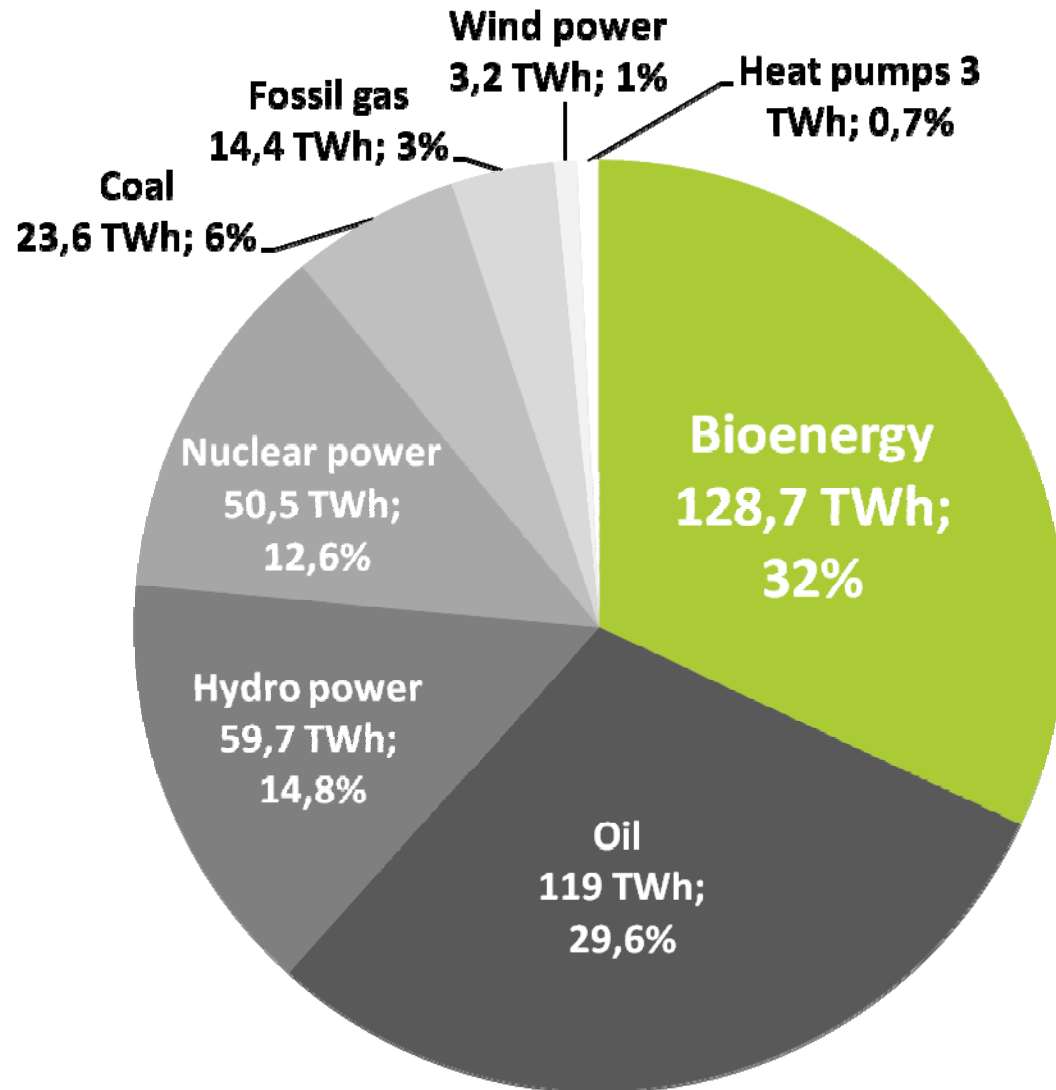
Increased GDP and reduced emissions with more bioenergy



Swedish bioenergy use 1970 - 2009

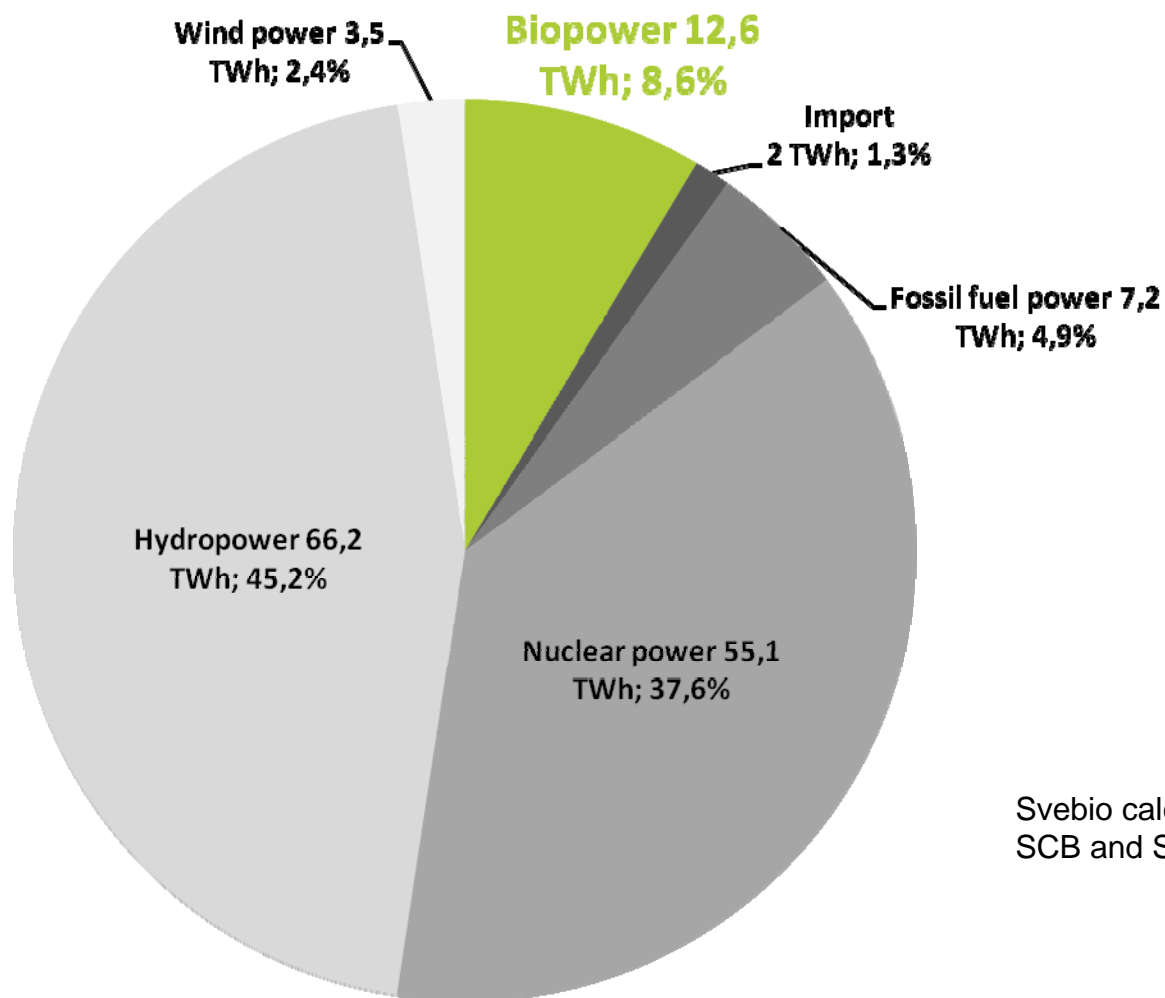


Share of final energy use in Sweden 2010



Svebio calculation based on Swedish Energy Agency forecasts.

Electricity production 2010



Svebio calculation based on statistics from SCB and Swedenergy.

Forest biomass management

Haulage/collection of forest residue.



Covered pile of forest residue is chipped for the heating season.



Chipping of forest residue.



Thinning near populated areas.



Stubs collected for crushing.



Bundling of forest residue.



Storage of composite residue logs.



Chips vehicle.



Spreading of ashes.



Forest residue (branches and tops), is collected at our timber felling areas and can be chipped directly, but is usually stored in piles near passable roads for transport to district heating plants during the heating season. It is beneficial to bring the ashes back to the forest.

Example CHP in Östersund



Negative effects of binding sustainability criteria for solid biofuels

- Administrative burden and added cost
- Disadvantage for small actors
- Trade barrier towards countries outside EU
- Threat to supply of biomass to the market
- Harder to reach targets and reduce climate gas emissions
- Static land use – less flexibility for land owners

Problems with “no criteria”

- Internal trade barriers in EU when some countries introduce criteria in legislation
- Negative debate with negative effects on public acceptance of bioenergy
- Uncertainties concerning imported tropical biomass

Position paper on sustainability criteria

1. **Harmonization**- avoiding EU internal trade distortions caused by incompatible national requirements;
2. **Flexibility**- adopting existing schemes, relevant national legislation and sustainable forest management initiatives;

Position paper on sustainability criteria

3. Equal level playing field- avoiding the excessive overlapping of different rules for the same raw material and aiming at the progressive application of the criteria to all biomass independently of its' final use;

4. Cost effectiveness and proportionality- avoiding excessive administrative burden and costs, in particular for small market actors.

Thresholds

COM proposed a threshold of 1 MW (e and th)

AEBIOM proposes **20 MW fuel capacity threshold** for solid biomass, and 2,5 MW fuel capacity for gaseous biomass.

A threshold in terms of quantity of biomass could also be considered for bioenergy producers (e.g. pellets producers) and for biomass fuel suppliers.

20 MW is the threshold for ETS, and the affected companies have the administrative capacity and economic strength to handle a sustainability scheme.

Heat plant around 1 MW using local wood chips and supplying heat to village with school, a few apartments buildings, and small industries



Position paper on sustainability criteria

The average size of forest holdings is 13 hectares in EU, but the majority of privately-owned forests are smaller than 5 hectares.

There are 16 million private forest owners in EU.

Voluntary systems like FSC and PEFC cover only 45 percent of the EU forest area.

Effects of thresholds - Sweden

- 240 000 forest holdings, average 20 hectares, ready to deliver fuels.
- 180 000 households with firewood, chips or pellets heating only.
- 500 000 households using biomass heating combined with electric or oil heating.
- 490 biomass heat plants with minimum 2 GWh heat delivery.
- 96 heat plants delivering more than 100 GWh heat&electricity from biomass.
- **260 heat plant delivering 20 – 100 GWh heat (&electricity) from biomass**
- 135 heat plants delivering less than 20 GWh (here the statistics are poor).
- 150 sawmills with boilers/dryers, and 50 paper and pulpmills (in ETS).
- 80 pellets producers, large and small, etc...

Administrative cost - Sweden

Applying the cost levels of the Impact Assessment from COM (february 2010), of 0.01 – 0.79 €/ha for larger forest holdings (10 000 – 2 million ha), and up to 6 €/ha for small holding (100 ha), the Swedish Forest Agency has calculated a total administrative cost of **675 million SEK per year** for Swedish forestry.

The total production value (delivery at roadside) of forest residues used as biomass for energy was, in 2008, only **650 million SEK**.

Conclusions

- Avoid new bureaucracy and increased costs
- Utilise existing control systems and legislation
– avoid new parallel regulation
- Removal of forest residues must be regulated on a national basis to adapt to local conditions
- Criteria must be relevant for European, and boreal, forest conditions, and cannot be based on tropical forest situation

Land-grabbing or development?

The Economist 7 May 2011

"THE farmers of Makeni, in central Sierra Leone, signed the contract with their thumbs. In exchange for promises of 2,000 jobs, and reassurances that the *bolis* (swamps where rice is grown) would not be drained, they approved a deal granting a Swiss company a 50-year lease on 40,000 hectares of land to grow biofuels for Europe. Three years later 50 new jobs exist, irrigation has damaged the *bolis* and such development has come "at the social, environmental and economic expense of local communities", says Elisa Da Vià of Cornell University."

The Economist 24 May 2011

"Here are the facts. Addax will create more than 2,000 jobs when the project is fully operational in 2013. We already employ more than 500 (not 50) workers who are paid more than twice the minimum wage."

"Land leases were signed after a long, transparent and public consultation process in which land owners were represented by a law firm to negotiate the lease terms.... We have engaged in intense dialogue with locals for three years, and continue to do so."



Global criteria

- Europe should not go alone. Criteria should be developed in co-operation with developing countries and other regions (Canada, US, Russia, China, etc).
- World Bioenergy Association has developed a set of global criteria. These can be used today, until the ISO process is finished.

Thank you!

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