

Sun Grant Biomass Feedstock Summit Breakout Session – GIS for Feedstock

- People are looking for data
- need to figure what we have and what we are missing

Is it realistic to think that we can integrate all the databases/systems?

- Are the estimates made the same way in different regions?
- GIS can serve as an integrator as long as you have data, and can also show the gaps
- People are using the similar sort of database systems, can work together. Now the problem is interpreting what is happening
 - Mass SFB vs Vermont Study (Chris R.) similar goals and similar methods. See if the estimations match because there are some overlaps
 - Penn, W. Virginia, New Jersey (bioenergy calculator), Vermont, Mass have forest biomass studies
 - all states basically have these but they are of different qualities using different data sources, and different granularities
 - Datasets may not look at socioeconomic data
- USDA?? – the data is collected with rigorous methodologies, this is very good data – harvestable biomass
- Total biomass is collected by other agencies, outside of statistical based surveys, and don't classify where it goes.
- Is data on landowner attitudes – some surveys from northeast. Important info for actual implementation of policy
- there are on-going projects trying to survey landowners by state – don't seem to be working together.

How do you bring the state estimates and data together to a regional level?

- Determine the methodologies for each state and compare, FIA data and then where the FIA is missing states could use a different method
- Diversity on processing survey data – don't know where the wood came from even in the good data set

When we get resources assessments – are we looking at it dynamically enough to see the tech changes? Especially in agriculture where species change.

- Try to look at whats happening now and look ahead.
- One easy way to approach it – what can you tell me about the resource right now or last year.
 - o Just describe it
- POLSYS model, would like to add models to approach energy questions, dedicated fuel crops – don't want to build another
- Can also use this along with climate change models to predict the resources in the future
- Given list of feedstocks of NE – need
- There are other places to find env. And socio economic data that can help predict the amount of biomass

-This data is useful for projecting what we should do, but in the end firms make the decision

- need to use the data to manage the industry – monitoring etc. Could also be used to look at sustainability

Does POLSYS establish a protocol? No

Instead we need to know what we need at a regional level, and what are the gaps

- How can we get finer data than county
 - o We know where there are forests are where there are not
 - o But it is hard and don't get enough data
 - o We know forest cover better than species
 - o Can get plot level data, just not the exact coordinates
- Soft wood vs hardwood – bark ratio

Why do we need finer than county data?

- To answer how many biorefiners we need – and refiners are asking for this
- Can't get product and coproducts to market
- Nutrient loading and erosion you need to know sub county data
- But the NAS and FIA is what we have, so you can start to try to break down what you want
- NPP – remote sensing is great when you tie it to a real dataset, otherwise it isn't as good
- FIA are worried about being denied access to private land – so don't want to give away productivity of private land
- Even county data are censored

What does it take to get better remote sensing data?

- Technology may work, but is not good enough for certification
- Need to push the technology

Are people looking at the systems and data collection tools to look at the sustainability of what they are collecting? Use advanced tools to determine if they are managing the land in a sustainable way?

-Vector based demand data for existing processors

-need to give processors the incentive to report what they are using

-Want to know what there is, but also need to know how much is already demanded

-Want to know give soil quality how much can you get, without damaging the soil – apparently you can get this from FIA data

-Forest have to be on the same page as the agriculture feedstocks

-Billion ton report doesn't include estimates of non-harvested land

What are people going to do – who owns the biomass, and how many of them are considering managing the land?

- Why aren't they managing their land now? – even for other uses besides timber production
- Landowner doesn't get total price of what biomass sells for – only like 10% - need to be aware that attitudes of land owners will change, as the new energy economy takes off. Current surveys wouldn't capture this

We know who owns the land – could link this data with survey data of the actual land owners

What are currently available feedstocks?

Can you identify a significant void in the data?

- Hard enough to understand peoples attitudes biomass now, and even harder to measure social effect on the availability of biomass
- This is available for agriculture and is in POLYSYS – that is why they are adding the energy crops to the model
- Need to look at consumers of biomass – what are they doing – where were they and where are they now
- PSU – is collecting data for consumers of biomass?? And should be ready next year or so, should fit with the WVU system

Biomass has been looked over in favor for agriculture

- Agriculture is already managed – so easy to shift management
- Less energy inputs into forest energy
- There are much different approaches to management

Biomass in the northeast is a going to be a byproduct of some other process especially if it is going to be affordable

- Covercrops
- Stover, methane, manure from dairy production
- The coproducts has to be a side industry for a lot of different people

-May need biorefinery first – and then farmers will shift their production to dedicated crops

-Billion ton report – needs to separate out what is actually available for use, because the timber companies use a lot of the wood for energy already

- Solid waste is not discussed often
 - o Clean wood waste – does it compete with woodchips
- Pennsylvania powerplant is using urban wood waste from Philadelphia – cheaper to get free urban wood, instead of timber

Need to be able to look at the biomass infrastructure (UC davis has this, and ORNL might have it)

Politicians are looking for sequestration numbers, what it might be worth in the future.

KEY POINTS

- Void of social influence on feedstock inventories/what do we know about management
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