**Conceptual framework**:
**-** Bill: The framework should be more of a roadmap to a specific proposal, rather than the LTER overall
- Mike: Should find out from NSF the difference between a conceptual framework and conceptual model
- Aaron: There is no temporal dimension to the current figure. We need to incorporate more long-term data for added value and leverage
- Alan: May need to invest in a professional graphic designer. Could also use the graphics in publications
- Todd & Mike: Couldn’t clearly see the mapping of hypotheses onto the framework/model
- Bob: Could add a figure showing how long term measurements inform the model
- Bill: Should make all the figure as a set of resources for LUQ group – will help because people view the systems differently based on their discipline
- Bob: Don’t try to do everything in 1 figure

**LFDP/Rainfall exclusion**- How will seedlings respond to increased drought in LFDP?
- Much of the data may be able to be collected due to the 2015 drought
- Need for experiment because we can’t do any manipulations in LFDP
- Need to look at the model: Can all the parameters be met with 2015 data or not? If not, need to do shelter experiment
- Jean: Need to look at root traits, not just aboveground traits of seedlings
- May want to consider trenching upslope of some exclusions
- Maria: Integrating ecosystem processes work with the tree data could help select sites
- Tana: The way we measure moisture will be important
- Mike: Preliminary data is important because it will change interpretation of the data. Some measurement of variation in characteristics should be done before manipulations
- Height of shelters may constrain where in the understory they can be placed, as well as what can be measured
- Detailed methods should be provided to the group for comment before the experiment starts
- Jean: Need to keep in mind the amount of work and figure out who will be doing the fieldwork
- Bob & Mike: Elevation should be taken into consideration

**Up the Mountain**- Temp is being recorded in every plot along the Sonadora hourly since 2006
- 3 Met stations need additional sensors
- Should consider a way to measure changing cloud height – Relative humidity, dew point?
- All corners need to be mapped for the plots
- Need to start getting permits, especially if met station is going to be in the wilderness area – should make sure that permit covers everyone who is going to be doing work so we can minimize permits
- Need manpower to process climate data
- Andrew: Could set up a Phenocam type system but for measuring cloud heights
- Aaron: Need to figure out where we actually need sensors – try to tie it back to the hypotheses , try to integrate both time and space
- Vegetation: Map and measure palm plots. Census seedlings
- Litter inverts: Need personnel to ID, but can collect anyway
- Large sampling campaign planned for 2017 – Use annual meeting in June to plan this
- Decomposition - should be done over the whole gradient in same areas as before in addition to Sonadora plots? Lots of additional effort
- Bill: Should do a comparison of sites to figure out variation in plots at the same elevations
- Alan: Should connect climate change impacts to something relevant to many people – maybe parrots

**Hypothesis 3**- Need to quantify contrast between palm and non-palm litter inputs
- Need to put litter baskets on Prieta A
- Duration and timing of droughts will change – experiment will allow us to change the timing of the dry period
- Maybe sample aquatic insects at waterfalls
- If system is not resilient to first drought, all subsequent experiments will be happening in a different context
- Movement of shrimp during drought will be monitored

**CTE**- Maybe measure size of leaves as they decompose
- Invitation to publish in a special issue of Forests – could use Xianbin’s data paired with PRS probe data and Maria’s litter decomp data
- Methodology and protocols need to be sent to Sarah so she can organize them. Update metadata on website
- Air drying and refrigerator changes extractable nutrients – Can still do total C and N, total nutrients
- Should take soil depth profiles yearly

**Hypothesis 6**- Need to budget stable isotope work
- Leaf lifespan data would help
- Would be a good unifying project between terrestrial and streams
- Maybe consider funding through a separate proposal

**Long term data working group**- How many papers use whole dataset versus just a subset?
- How do you use long-term data to validate models?
- Need to do a better job explaining not just what will change, but how it will change
- How much disturbance does it take to push a system out of balance?
- Bob – Seems like things are getting knocked out by one big event rather than gradual change

**Hypothesis 7**- Back trajectories of moisture could be calculated
- Taylor et. al “Precise” model
- More urban development recently on south side of forest
- Would be useful to have a dataset of urban landscape to put into model
- Alan: Need an operational definition of drought – Suggestions to follow Larson paper, consecutive days without 1 mm rainfall, or drought monitor groups

**Hypothesis 8**- Need a workshop about novel ecosystems/biotic communities at annual meeting
- Rewrite hypothesis 8 to be able to show progress at site review
- “.. lead to increasingly vulnerable communities”