Monitoring in drylands: Light at the end of the tunnel or is that a locomotive?

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Many people are curious about drylands/dry forest...

.... And some would like to do something positive to address non-rainfall constraints.
Studies of cost-benefit of dryland restoration are few...

.... Passive restoration has positive cost:benefit, active restoration often does not (Birch et al, PNAS 2010)
BUT, HOW CAN WE KNOW IF INVESTMENT SUCCEEDS WITHOUT REPEATED MEASUREMENT?
Challenges – monitoring

1. Who cares?
2. Unclear return on investment
3. “Need” is constant, capacity is transient
4. Sustained funding is rare
5. Little real use of the findings
6. Would you bet your life savings on the results?
Unique (?) Challenges – dryland monitoring

1. Sparse vegetation, unpredictable rainfall
2. When moisture is limiting, options for change are few
3. Limited land values dictate low monitoring costs
4. What does one then measure to make a difference?
Who is the audience for more information about drylands and dryland forests? Do we REALLY know?

Actions to manage dryland forests have existed since at least the 19th century....
What does history tell us?

Does remote sensing provide the answer?

Or are we dreaming?

If there is no demonstrated return on drylands monitoring investment, it should not be done.
Monitoring is a continuous process. Staff are in constant movement, donors grow weary and technologies grow old.

Capacity?

Required investment is not trivial
Investment in monitoring without MAJOR efforts to build demand among decision makers is futile.

How?

There are mountains of monitoring reports that have rarely been read and NEVER used.

Use of findings – HUGE CHALLENGE

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Technology is not the starting point...
The promise of remote sensing has almost always been overstated. Can high resolution imagery provide the technical solution at reasonable cost?

Can we afford it?

- Are meaningful results possible?
- Will they be of adequate quality/reliability?
- Will decision makers be compelled to action?
...dryland monitoring sounds important and useful.

....thinking carefully about the chances of success is absolutely critical
It seems unwise to commit to major new action to monitor drylands/dryland forests without the will to see it through?

Are we willing?
In summary

• Hope lies with “buy-in” established together with forest/land managers
• No commitment = no hope
• Thinking first about data use by those who make a difference is ESSENTIAL
• Long-term capacity building and financing need serious thought and investment
• The technical part is challenging – but less than getting the data into use
Thank you