What are the main energy resilience challenges for communities?

Forecasting what to prepare for

really interesting discussion on using private commercial players to address some of the limitations of communities when it comes to collecting money. I find this a little confronting in terms of community orientation

how different does our thinking have to be for disaster relief versus community building in energy resilience Not one size fits all ask community what they want. Too many research papers note that the outcomes could have been improved by better understanding community needs/preferences

changing demand (new appliances, new behaviours, etc) Systems adaptable to increasing demand extreme event
(cyclone. earthquake)
differ from occasional
(but increasing)
events such as more
frequent flooding,
more serious flooding.
The first is about
recovery; the second
designing & building
for long term

petroleum fuel for commercial energy & this will remain for some years. Access to cleaner, affordable fuels in rural communities remains a challenge. (tanks leak & are seldom repaired; shipments are not often. Costs are often higher than

Ask community what the challenges are. Don't assume you know better.

2. What role can communities play in improving energy resilience?

Maintenance
- job creation
often a goal

do solar home systems build community or actually encourage quite individualistic behaviours.

What assets/strengths/skills already exist within the community? How can these be leveraged to improve resilience?

What are order of priorities for community resilience?

topic 2.
Communities know
the local
environment & what
dangers to expect

3. What are the key areas for research or data collection?

Breakout Group 2

need to go and look at communities where projects have succeeded (how, what did it take). we also need to go and do brutally honest reviews of projects that went horribly wrong (failures are ophans but many

priorities immediately
after cyclones for that
cane cutting
community. In
australia plenty of
water immediately
after a cyclone of
course but gets
problematic very
quickly, surprised that
communications and
lighting aren't more

3 research. Why has there been so little attention to improved cooking methods & fuels (SDG 7) which is a serious health issue for women & children in the region?

Peter's idea of linking up small RE based systems to create more resilient larger systems. Do we need actual pilot projects or are tools and modelling enough to begin?

still assuming the future looks like the present - tools to assist communities to understand what the future for their area actually looks like

What does resilient design mean? ie is it high cost/ high quality, does this delay or inhibit access to energy?

topic 3. It is really hard to use SDG 7 indicators to measure improvements. How to improve them for practical use?

1. What are the main energy resilience challenges for communities?

Access to Capital (affordability issues Prejudice against new technologies. Against behaviour change

Location remote location. Accessibility Inter-community
(organisational)
conflicts and
differences can
create challenges.
Multi-voices - how
to ascertain a more
singular objective

Lack knowledge and awareness. Technical skills.

Land conflict and use issues. Lack of energy resource (e.g., sun supply, water/hydro etc.) 2. What role can communities play in improving energy resilience?

Identifying suitable land for energy use/infrastructure

Long-term
sustainable incentives
- in energy use,
maintaince, financing.
Creating market /
social changes.
Creating new needs in
the long term.

Lead role in terms of vision for energy project and needs.

Problem identification, needs to be community-driven.

Women to play a more active in the energy space. Especially cooking energy issues. 3. What are the key areas for research or data collection?

Breakout Group 3

Data on cooking fuel preferences? Why they use certain fuels? And their flexibility in terms of adopting new technologies? Knowledge of technological options?

More granular data on energy use? [too much is at a macro level] Community level; household level, etc.. They allows for more nuanced planning.

Research potential business-models that can function in remote areas/communities.

Using mobile phone technology to collect data. [note privacy issues]

1. What are the main energy resilience challenges for communities?

2. What role can communities play in improving energy resilience?

3. What are the key areas for research or data collection?

Breakout Group 4

Understanding the uncertainties and complexity of the challenges

consistency in good governance - strong village committees can make a big difference

Self-monitoring and self-accountability

Resilience cannot be attained if it is not expressly a goal. So the community and all stakeholders need to understand that in all their decisions. resilience needs to be a priority

use of biomass in community, including energy for cooking

Use of biogas for cooking - why aren't the majority of communities (that have abundance of livestock) making use of this technology when it is working well in some communities?

accountability and information to govt communities, hidden and high maintenance costs, different projects (diff spec etc - so lacking synergy), no technical capacity or empowerment or institutional

Linkages from the villages to the provincial level and then to the national level are challenging. Information needs to run up and down this chain.

Being co-owners of the project and/or the energy system

Co-planning, co-design

how do we all make it stick

Updated gender surveys for selected communities that need the most development assistance

Lack of sustainable financing mechanisms to help communities Build Back Better after being hit by natural disasters.

Women are the main users of energy, but often excluded from community consultations - need to make special effort to hear their voices

Taking ownership of their electricity needs and being committed to making payments for their monthly bills.

co-production

Demand-side surveys for rural villages and maritime islands. How has demand changed over the years, is there suppressed demand? What is the What is the future role of off-grid and mini-utilities and willingness and ability to pay?

Review of off-grid solar systems that have been in place, with a focus on how community engagement has supported (or not) sustainability

No insurance

Community, in our context is left out, needs unheard of and no sense of resilience in times of disasters/crisis

Established Energy

communicates with

govt and community

body that

(holding

feedback,

learned.

accountability, transparency,

success/lessons

investment/funding)

What business

and mobile

reliant rural electricity systems

models could work? scholarship gaps and needs & opportunities in How can digitisation these areas innovation driven technology be used vestments too) to maximum effect for more efficient,

eds assessment -Education, training,

Filming of good practice case studies to create awareness, advocacy and encourage other communities that they can take ownership and make community-based projects work.

1. What are the main energy resilience challenges for communities?

having efficient cooking stoves

environmental

issue and power

energy cooking (electricity or gas) can

dynamics. Modern

predominate which comes with problems of health, air pollution, deforestation, time consuming). Gender equality is also an

community buy-in

Working in

numerous stakeholders

partnership with

(communities,

governments,

academics)

private businesses,

Resilience against cyclones

recovery time after cyclones/disruptions for off-grid systems

2. What role can communities play in improving energy resilience?

As consumers could lead to more consistent payments

Community ownership of energy systems

in-kind support As stakeholders to be consulted

Be part of the technical team through capacity building of skills and livelihoods (also for maintenance and repair).

Be leaders of planning - experts in social and cultural understanding of context

Be change leaders for other communities close by

3. What are the key areas for research or data collection?

Breakout Group 5

Are SHS building resilience? How significant? e.g. https://www.odi.org/si tes/odi.org.uk/files/res ource-documents/1195 5.pdf

How are people in Small Island State vs larger countries adapting energy solutions during disasters?

What are people willingness to pay?

clean cooking datain communities

What cooking is current being undertaken (what fuels, how much, when, who is cooking, who is collecting fuel, what food is being cooked)?

Repair times for grid vs off-grid systems

How are disabilities (and other diversity groups) being incorporated into the resilience dialogue?

community gender and energy research

data on women engagement at various levels

Note: breakout room 1 was not used during the workshop