Table S1. Interview Questions Round One conducted during April – May 2021

Electrical power is considered as sufficient when it satisfies the daily energy needs of its users. It is reliable when it is not unexpectedly interrupted (for example, via frequent blackouts). 1) Given the statements above, how would you describe the electrical power supply in your community, and why? PROMPT1 if needed: Does it satisfy your daily energy needs? PROMPT2 if needed: Is it reliable?
2) What do you think are the most important problems of the current electrical power supply in your community, and why?
3) What can you tell us about your electrical power supply and needs during severe storms or floods? PROMPT1 if needed: Do you have frequent blackouts and if yes, is this a problem to you? PROMPT2 if needed: Which of your electrical devices would you most need to use during storms and floods?
Electrical power can come through mains power sources such as gas or coal-fired power stations, and sources of renewable energy that come from the wind, sun and water, which are commonly known as wind energy, solar and hydropower. 4) If you could choose any electrical power source (or sources) which would you prefer for your community, and why? PROMPT if needed: What features make it suitable?
5) Would you consider renewable energy systems as a priority solution for your community and why?
6) Is there anything else about the supply of electrical power in your community you think is worth mentioning?
Now I will ask some questions about floods and flood warnings. As you know, a severe flood might cover roads and enter people's houses. 7) Could you tell me about any severe floods that have occurred in your community? PROMPT if needed: Do floods occur frequently in your community?
Warning systems for floods can include things like flashing lights, sirens, SMS text messages, warnings on radio/TV and flood markers which show high water levels. 8) Does your community have any of these (or other) flood warning systems, and what do you like or not like about this system? PROMPT1 if needed: Do you think this system works well, and why? PROMPT2 if needed: Do people get enough warning time?
9) If you could choose any flood warning type (or types) which would you prefer for your community and why? PROMPT1 if needed: Let me remind you that warning systems for floods can include mechanisms like flashing lights, sirens, SMS text messages, warnings on radio/TV and flood markers. PROMPT2 if needed: What features make it suitable?
10) Would you consider flood early warning systems as a priority for dealing with floods in your community, and why?
11) Is there anything else about flood warnings in your community you think is worth mentioning?
We have discussed issues about having reliable electrical power supply and warning systems for floods. 12) Are these the biggest problems in your community or are there other things that are more important right now? PROMPT if needed: What do you think of the biggest priorities for the community right now?

Table S2. Interview Questions Round Two conducted during July 2021

Now I am going to ask some questions about the options I've just presented. 1) If these were the only options for your community, which one would you prefer?
2) Why do you think this option is the most useful for your community? PROMPT1 if needed: What particular aspects make it suitable (i.e. its attributes or the way the community will use it)?
3) What disadvantages might there be for the option you suggested? PROMPT1 if needed: What particular aspects might make it unsuitable (i.e. its attributes or the way the community will use it)?
4) What solutions can you think of to overcome these disadvantages? PROMPT1 if needed: Can you think of any changes with this option that would make it better, like its features or the way it's used- if yes which?
5) Do you think there could be any particular risks or problems for your community if you install this option? PROMPT1 if needed: Could this option have a negative effect on people in the community or the environment?
6) Apart from its main benefits [state benefit of selected option], would such an option have other positive effects in your community? PROMPT1 if needed: What other specific benefits could it bring?

7) If this option was installed would your community have enough resources (e.g. manpower or money) to 'run' it for 10 years? If yes, what resources does your community have for this, if not what would you need?
8) Who would be the best people or groups to install and 'run' this option (for example, individual community members, Village Development Committee, whole community, local government, banks, private sector, NGOs or others)? PROMPT1 if needed: Why these /this combination? PROMPT 2 if needed: What skills/strengths do they have?
9) Would you be interested to take part in 'running' this option (for example, monitor the system or help with maintenance)? If yes why so, if not why not? PROMPT 1 if yes: If this was a volunteer (unpaid) role, would you still like to take part?
10) Would you be willing to have some free training for this? If yes why so? If not why not?
11) Is there anything else about the option you suggested that you want to mention?
(ask if they don't pick hybrid/combo option) 12) In order to both generate power and have flood warnings would it be better to have two separate systems like option 5, or a single system, like option 6, and why?
13) Would you like to mention anything else?
14) Last question about the way we took these interviews. Please respond with yes or no - if no, please state why not. The interviews took place online and in your own language. • Was the online process easy for you (e.g. easy to participate) • Was the catalogue information clear to you? • Were you able to say everything you wanted to? • Is there anything that could improve how we do these online interviews? (Yes, state how)