RESEARCH QUESTIONS AND DATA COLLECTION

This project analyzes interview data from six global sites on individual perceptions of climate change risks and impacts to answer the following questions:

1) What types of climate change impacts are expected, and when?
2) Where and at what scales are impacts likely?
3) Who is responsible for taking actions to deal with climate change?

Data was collected through the Global Ethnohydrology Study, a multi-year and multi-site study led by Drs. Amber Wutich and Alex Brewis. This study utilizes data from the 2012 study. Sites were designated as “Developed” or “Developing” based on classifications by the United Nations.

<table>
<thead>
<tr>
<th>Country</th>
<th>Site</th>
<th>N</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
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<td>72</td>
<td>Developed (n=209)</td>
</tr>
<tr>
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<td>Wellington</td>
<td>74</td>
<td>Developed (n=209)</td>
</tr>
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<td>63</td>
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<td>Viti Levu</td>
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<td>Mexico</td>
<td>Teotihuacan</td>
<td>56</td>
<td>Developing (n=191)</td>
</tr>
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1) WHAT TYPES OF IMPACTS ARE EXPECTED, AND WHEN?

Water shortages were identified as the most concerning potential impact in both developing and developed contexts. Developed sites were least concerned about the risk of disease, while developing sites were least concerned about the risk of a decreased standard of living.

![Figure 1. Mean perception ratings by development status: types of impact.](image1)

In developing sites, 51.8% of respondents said “people are being harmed now”, compared to only 17.2% in developed sites. Overall, developed sites were more likely to temporally distance themselves from the impacts of climate change.

2) WHERE AND AT WHAT SCALES ARE IMPACTS LIKELY?

People tend to find global rather than personal risk more concerning. This suggests the existence of the hyperopia effect, wherein broad, global risks are seen as more concerning than more local risks. This effect was consistent for both developed and developing sites.

![Figure 2. Mean perception ratings by development status: when will climate change start to impact your local area?](image2)

Most respondents agreed that both wealthy and poor countries will be affected by climate change, but in different ways. However, respondents in developed sites were three times more likely than those in developed sites to say that poor countries would be more impacted by climate change.

3) WHO IS RESPONSIBLE FOR TAKING ACTION TO DEAL WITH CLIMATE CHANGE?

The majority of respondents from all sites had a high perception of personal efficacy regarding their individual ability to decrease the effects of climate change, although respondents from developing sites were slightly more likely to have high perceptions of personal efficacy.

Respondents from all sites overwhelmingly indicate that their government has a responsibility to deal with climate change. The majority of respondents in both developing (80.1%) and developed (64.1%) sites thought that their government was not doing enough to mitigate the effects of climate change. In developing sites, 30.1% of respondents thought their government was doing about the right amount, compared to 11.5% in developed sites.

PHOENIX AREA RISK PERCEPTIONS

Type of impacts – Phoenix residents believe water shortages to be a greater risk than increased disease or decreased standard of living, but their perception of risk is lower than many other sites.

Urgency of risk - 58.7% thought effects of climate change would be felt within the next 25 years.

![Figure 5. Phoenix, AZ response percentages: when will people in your local area start feeling the effects of climate change?](image5)

![Figure 6. Phoenix, AZ mean perception ratings: types of risk.](image6)

CONCLUDING THOUGHTS

Conclusions by research question:

1. Developing sites tend to be more concerned about every type of climate change risk, and to believe that these risks are more imminent.
2. Overall, respondents tended to find global risks more concerning than personal risks. Respondents from developed sites were far more likely than developing sites to say that climate change would be more harmful to poor countries.
3. Respondents from all sites are generally open to government solutions and feel that their governments are currently not doing enough to mitigate the effects of climate change. They also have a high perception of their personal ability to affect climate change.

Implications for Phoenix:

- There appears to be strong support for government action on climate change, so the government should feel more empowered to take action.
- Phoenix residents have a strong sense of personal efficacy, so perhaps the public would be receptive to suggestions for individual behavior change to help reduce climate change.
- Many people think they will see the effects of climate change in their lifetime, and identify water shortages as the most concerning risk, so water shortages might be an impactful focal point for climate change discussions in Phoenix.

NOTES AND ACKNOWLEDGEMENTS