

Investigation of Stove Performance in Households in Southwestern Uganda

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In collaboration with:

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Millennium Promise

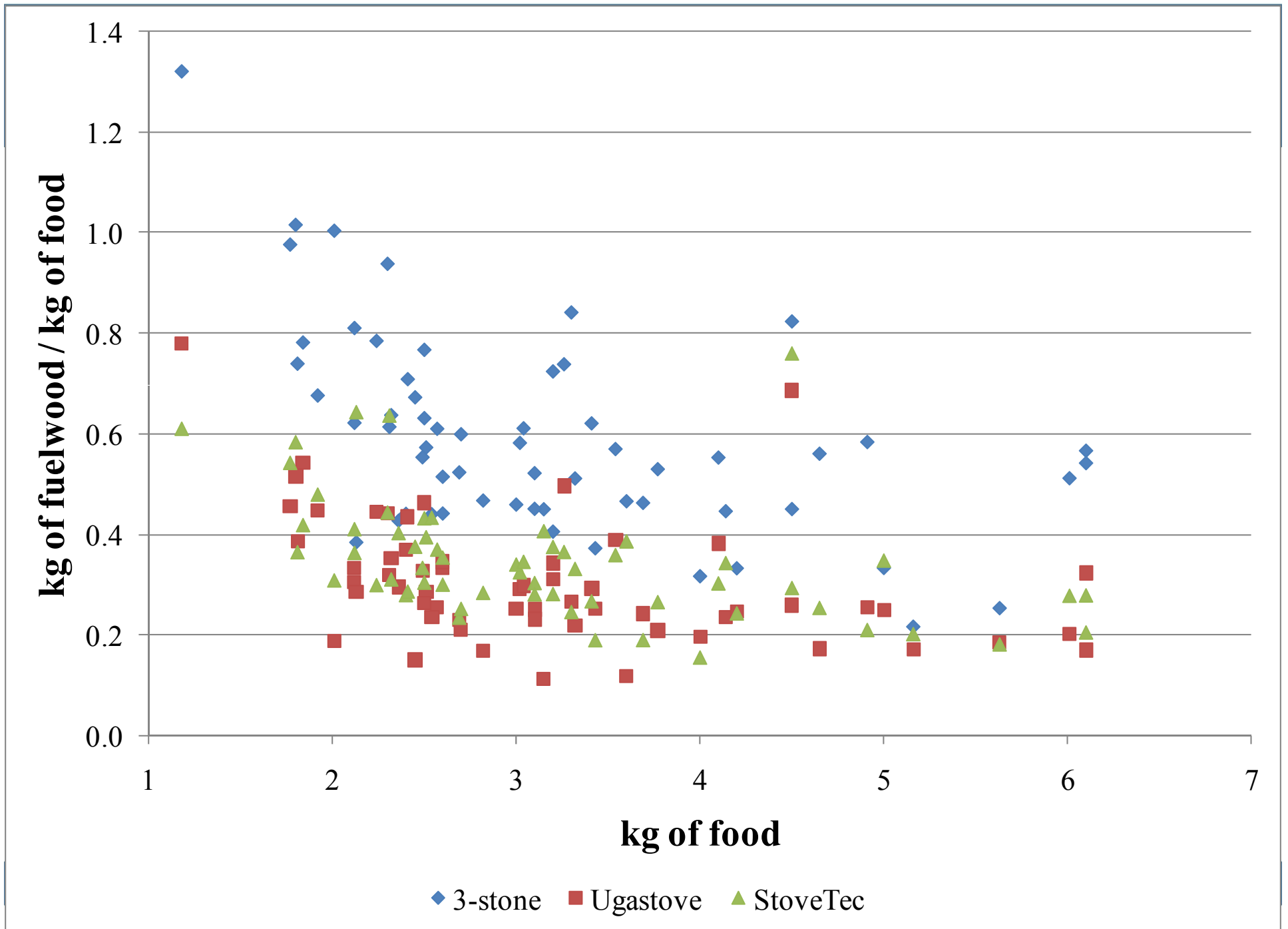
Goals of Stove Testing

- Test stoves in conditions as close to actual conditions as possible to quantify fuel savings
- Gather qualitative information about stove usability
- Testing two stoves in Ruhiira, Uganda:
 - Ugastove, manufactured in Kampala, Uganda
 - StoveTec, manufactured in China

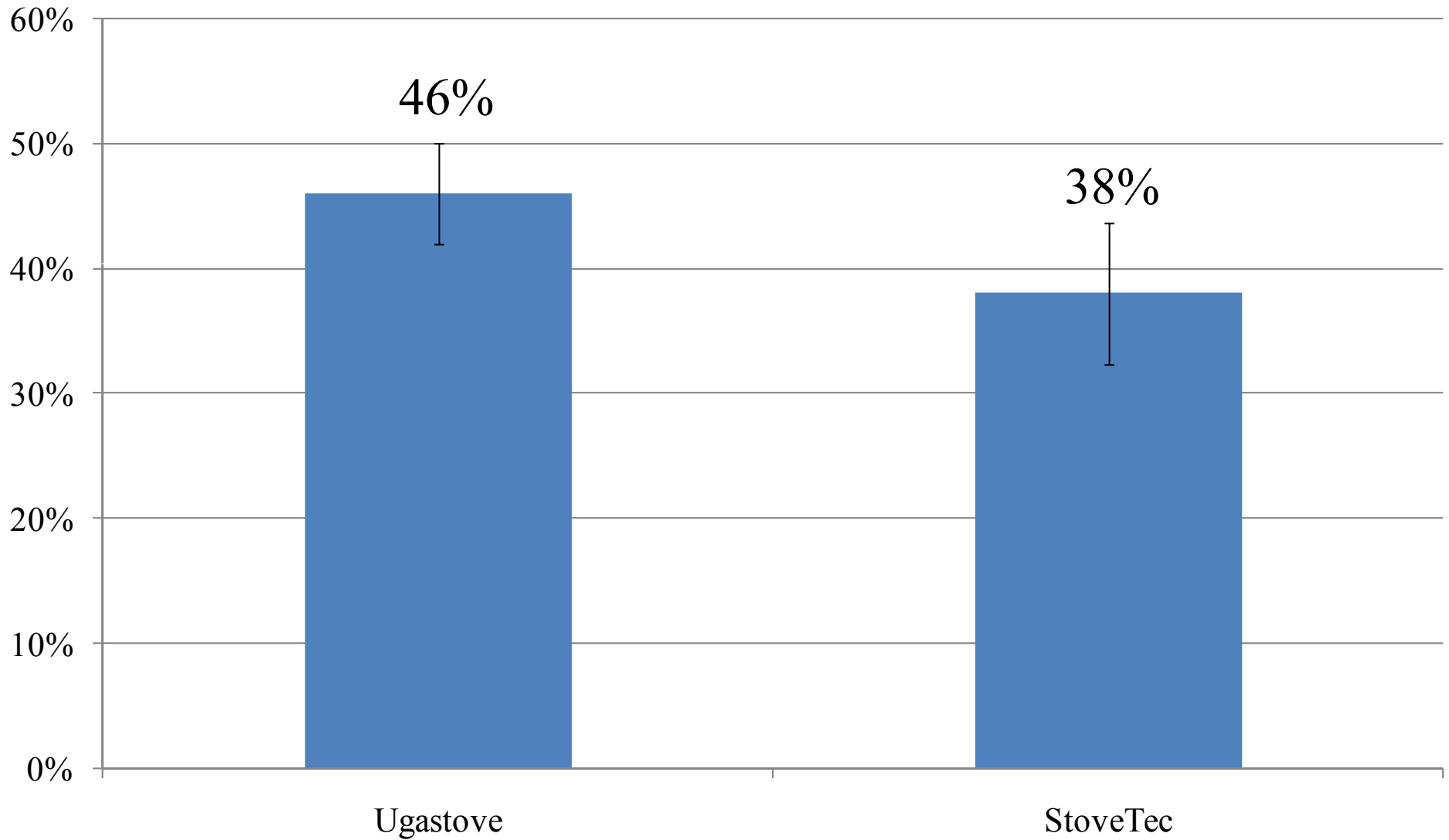
Methods

- Controlled Cooking Test conducted in actual homes
 - Test all three stoves (3-stone, Ugastove, StoveTec) simultaneously
 - 30 households, 2 tests per HH; 60 triplet tests total
- Measuring specific fuel consumption: weight of wood used per weight of food cooked
- Qualitative survey to understand the usability of the stoves and stove preference

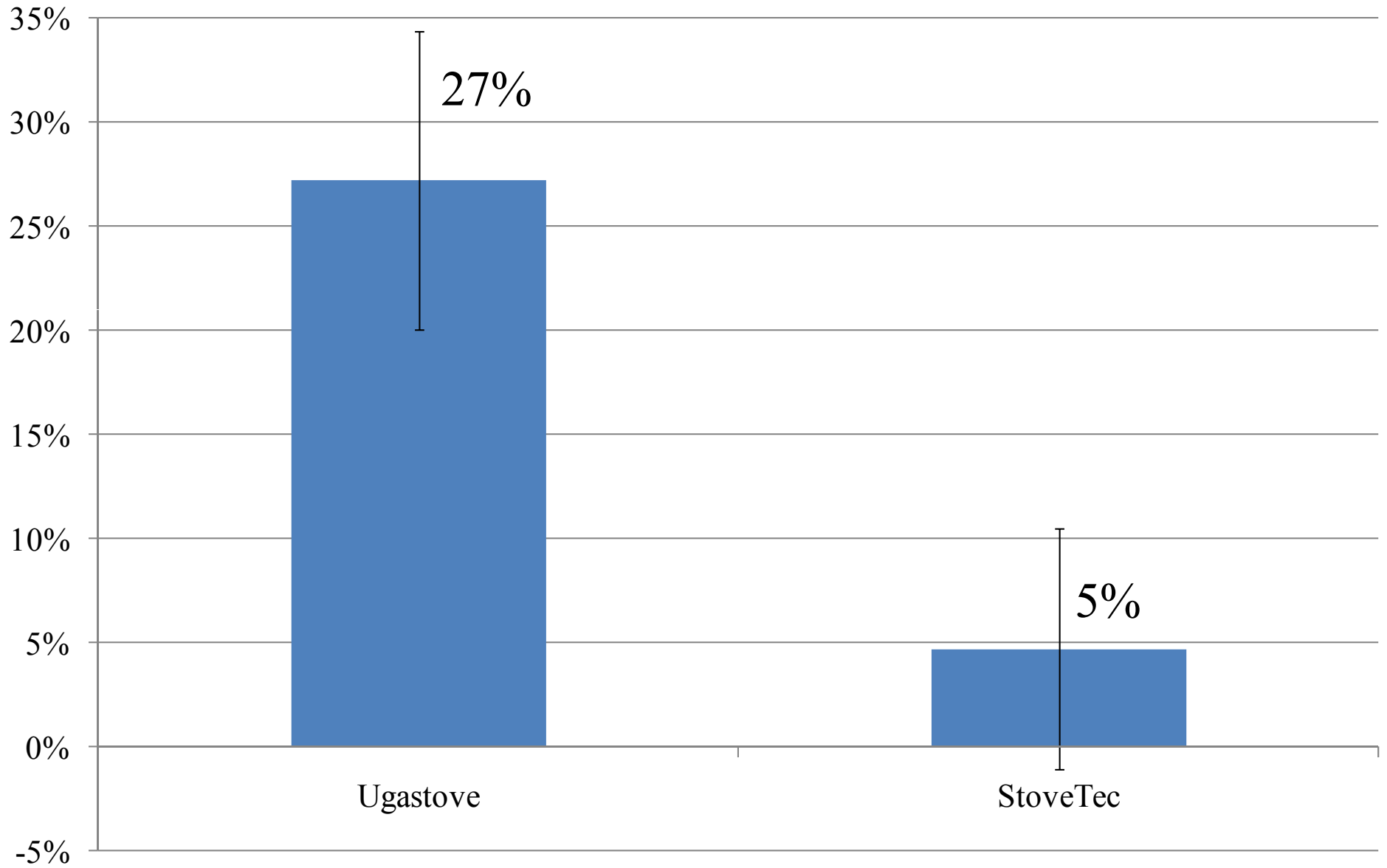




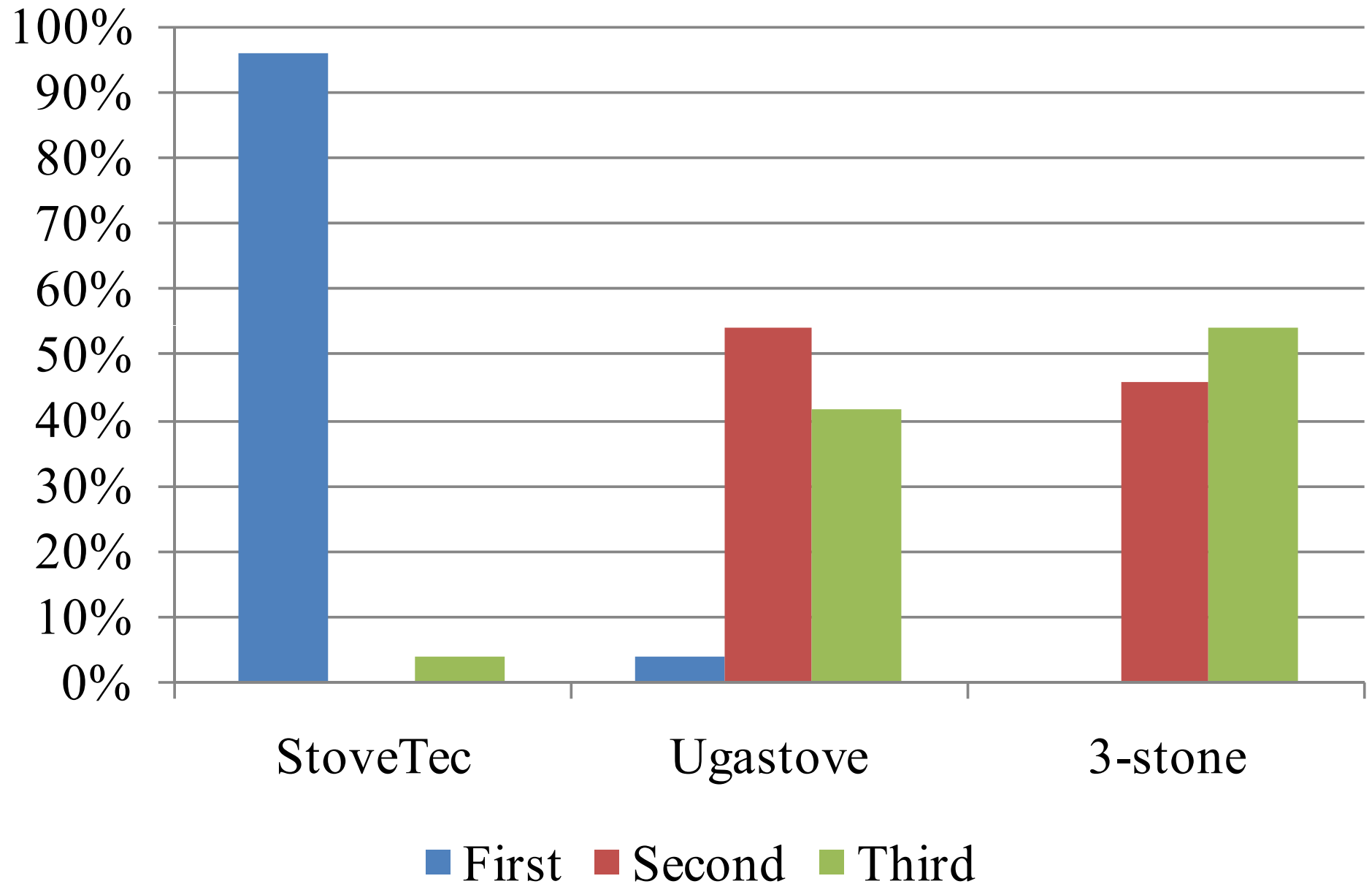
Percentage Savings in Specific Fuel Consumption (kg of fuelwood / kg of food) Compared to 3-Stone Fire



Percentage Increase in Cooking Time Compared to 3-Stone Fire



Rank stoves in order of preference



User preference survey results

Ugastove

- Likes:
 - Uses less firewood
 - Emits less smoke
- Dislikes:
 - Takes more time
 - Difficult to light
 - Surface gets hot; difficult to remove saucepan
 - Difficult to move; handles get hot
 - Stove is too tall

StoveTec

- Likes:
 - Uses less firewood
 - Cooks food quickly
- Dislikes:
 - No complaint
 - Difficult to light
 - Not stable; easy to tip over

Lessons Learned

- Stove usability is equally or more important than the fuel savings of the stove; if the stove does not meet the users needs, it will not be used and thus has no benefit
- Important to test stoves in households with an understanding of common cooking tasks in region

Future Plans and Goals

- Expanded trial in which ~400 stoves are sold through local vendors / cooperative
- Investigation of potential to include carbon credits (VERs) as partial financial support for stove programs

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