Applying Analytical Hierarchical Processing (AHP) in a social sustainability study of pig farming in Sweden - How to weigh social issues

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Conclusions

AHP can be used to weigh social sustainability issues using experts, but consistency needs to be thoroughly verified. This suggests, that AHP can be used in Social Life Cycle Assessment (LCA) and quality grading schemes in future.

Introduction

❖ Poor conditions for human and animals are antecedents of low social sustainability for pig farming

❖ Social sustainability can be evaluated using Social Life Cycle Assessment (SLCA)

❖ In this pilot study we tested Analytical Hierarchical Processing (AHP) as a method of weighing the antecedents

❖ AHP by Saaty (1980) uses pair wise comparisons and makes weighing consistent and rational
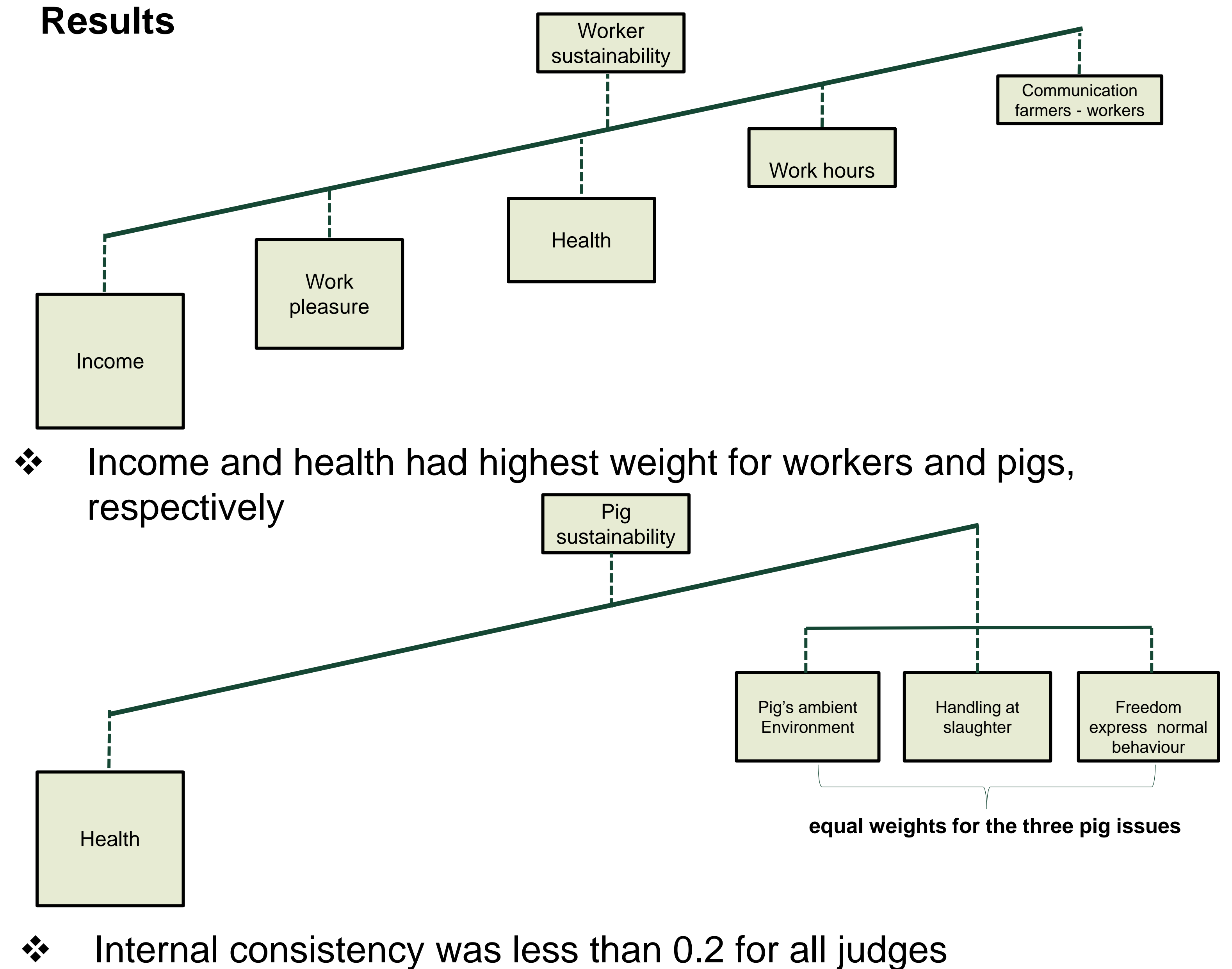
Research questions

❖ What are antecedents of low social sustainability of Swedish pig farming?

❖ What are the order of importance?

Methods

❖ Literature review of issues affecting pig production

❖ Internal consistency less than 0.2 is desirable

❖ Ranking of pairwise comparison of the issues by three judges using AHP

Results

❖ Income and health had highest weight for workers and pigs, respectively

❖ Internal consistency was less than 0.2 for all judges

Next step: We are working on a social LCA of two pig production systems where we use AHP to weigh social issues with a web-based questionnaire.

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