

## Perceptions and Practices Relating to Nutrition Among Decision-Makers at Suaahara sites of Nepal

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### Introduction

The Scaling Up Nutrition (SUN) movement proposes that “there is a need to incorporate nutrition interventions into smallholder agriculture and rural livelihoods programmes, for example through encouraging home production of foods like fruits and vegetables and animal products that are rich in nutrients.” (SUN 2011) The logic underpinning this idea is that actions combining behaviour change, agriculture, and health can amplify and accelerate gains in nutrition.

The bundling of multi-sectoral components into a linked portfolio of actions is often justified by potential interaction effects (Ravallion 2013). For example, three decades ago Timmer et al. (1983) proposed that integrating “food and nutrition interventions will probably pay high dividends through greater cost-effectiveness of individual programs and greater opportunities to sense and capture program synergies.” They also proposed that “much of the improved performance will come from intersecting targeting, for example, by geographic region at particular times of the year with specific commodities consumed primarily by the poor.” More recently, Heaver (2005) similarly argued that “multi-sectoral programs are the most effective way to tackle malnutrition.”

While the theory of synergistic impact is widely accepted, empirical evidence of successes at scale remains scarce. Indeed, the World Bank (2010) has underscored a need for “enhanced data on service delivery, demand-side behavioral outcomes, and implementation processes to better understand the causal chain and what part of the chain is weak.”

This brief presents preliminary findings from work in Nepal that explores such issues, including the processes, impacts, constraints and innovations in multi-sectoral programming that explicitly links agriculture with health and nutrition. The focus in this brief is on a first round of data, collected in 2013 under USAID’s Feed the Future Innovation Lab for Collaborative Research on Nutrition, aimed at assessing policymakers’ and programming professionals’ understanding of nutrition problems, challenges to multi-sector programming and potential solutions.

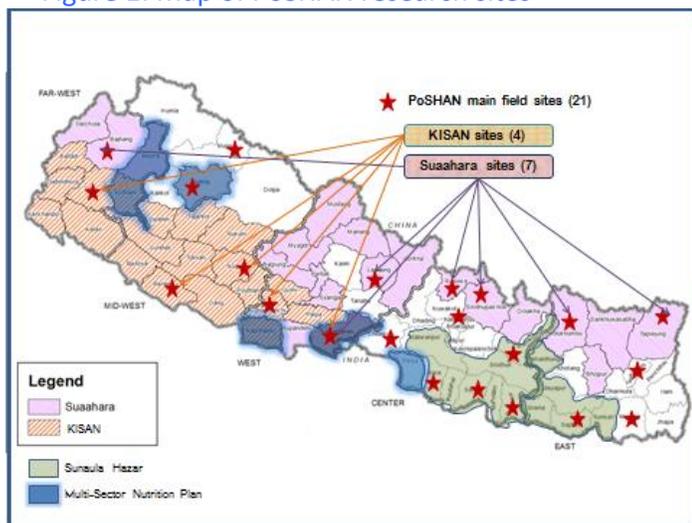
### Methods

This study falls under the umbrella of the USAID-funded PoSHAN research (Policy and Science for Health, Agriculture and Nutrition). The current brief deals with the component that examines the range of responses by professionals in government and non-governmental organizations who have responsibility for facilitating, if not directly implementing, multi-sectoral actions that have a bearing on nutrition. Linked to an annual *household*-level panel survey in the 21 PoSHAN study sites (see Figure 1), a parallel annual survey is conducted among *decision-makers* at all levels of governance to assess individual knowledge, personal attitudes and professional practices (see PoSHAN Research Brief No. 15).

This decision-maker survey is a multi-year assessment that traces the implementation of several multi-sector interventions, including USAID’s two major nutrition-relevant programmes in Nepal: Suaahara and KISAN. Such research does not represent an impact evaluation in the formal sense (since each programme has separate responsibility for its own monitoring and

Evaluation (M&E) and for impact assessment). Rather, it represents an empirical study of individual and institutional commitment and capacity to support enhanced outcomes in nutrition.

Figure 1: Map of PoSHAN research sites



Using semi-structured questionnaires, with responses coded for analysis, the study goals are to identify i) what institutional and individual strengths best support complex programming aimed at accelerating national nutrition gains, ii) whether strengths in nutrition governance translate into measurable impacts on the ground (at household level), and iii) what kinds of key capabilities need to be strengthened or better supported (at what levels of governance) through improved targeting of training, resource allocation and supervision. Some of the key research questions are listed in Box 1.

The PoSHAN policy process research is an observational study based on annual surveys at all 21 study sites, with roughly 38 individuals interviewed at each site (amounting to over 750 interviews in total). At each site there are interviews with 6 to 8 line ministry officials, several NGO representatives (working for the main programmes in that district), additional civil

servants, and a few private sector entities (see Webb et al. 2013).

Box 1: Key research questions include,

- What do key stakeholders in different sectors and different levels of governance understand to be priority nutrition problems and solutions?
- What evidence is used by stakeholders in determining appropriate actions at their own level of governance or responsibility for implementation?
- What facilitators or constraints affect collaboration, resource flows and implementation of proposed policies and program elements?
- What effect does organizational culture, institutional resourcing or individual capabilities have on operational effectiveness and 'readiness for change'?
- Does employment stability (length of stay in a position) affect individuals' knowledge, attitudes and practices in their job?
- What incentives and dis-incentives for collaboration exist at various organizational levels and across ministries and agencies?

The study design builds on the innovative and evolving work of Walt et al. (2008) and Wells et al. (2012). Indeed, as Ravallion (2013) puts it, "we need to think creatively about how best to go about evaluating the portfolio [of development actions] as a whole, allowing for interaction effects amongst its components, as well as amongst economic agents. This is not going to be easy." Thus, every effort is made to generate answers to rigorously framed questions in such a way that comparability and replicability are possible across study locations, across levels of enquiry and across years of surveys.

The preliminary findings presented here focus on aggregate results from 7 of the PoSHAN sites where Suaahara has been operating since late 2012, and 4 additional sites where the KISAN

program has been rolling out during 2014. In other words, roughly half of the randomly selected PoSHAN research sites overlap with USAID's large-scale nutrition-sensitive programming (West 2014).

While USAID-supported interventions seek district-wide coverage in their defined zones of operation, the PoSHAN interviews are conducted first at the regional and district level, and then focus on a single randomly-selected VDC, such that sub-district interviews are conducted at the ilaca, VDC and ward levels—see Table 1 for the distribution of interviews by layer of governance responsibility. Within the VDC, 3 randomly-selected wards are used as the units of observation. The total number of interviewees in Suaahara sites was 240, compared with 512 for all other PoSHAN study locations, of which 160 were in KISAN intervention areas. This brief will focus on results from Suaahara sites, followed by a separate brief relating to KISAN.

While the data clearly only represent outcomes across a sub-sample of intervention districts (7 of 20) and wards (63 of 8,703), the randomization of sites and large number of interviews conducted (>750 each round) allows for suggestive conclusions that can inform our understanding of current conditions (and how they change over time), as well as a deeper analysis supportive of programme-specific M&E.

Table 1: Number of Individuals Interviewed, by Level of Governance

Level of governance	Number (N)	Percentage (%)
Regional	99	13.2
District	278	37.0
Illaka	79	10.5
VDC	97	13.0
Ward	199	26.5
<b>Total</b>	<b>752</b>	<b>100.0</b>

### Programme Characteristics

The *Suaahara* program is designed to improve maternal and child nutrition in 20 of the most vulnerable districts across Nepal's agro-ecological zones. It formally integrates multiple sectors of activity, including agriculture, to achieve improved nutrition. The main programs areas are a) maternal and child nutrition, b) maternal, newborn, and child health services, c) family planning services, d) water, sanitation, and hygiene, and e) agriculture and homestead food production.

### Preliminary Findings

The first round survey found that early efforts made by Suaahara to sensitize and train large numbers of stakeholders across the program's 20 districts seem to be paying quick dividends. From August 2012 to July 2013 (at which point the PoSHAN interviews were conducted), Suaahara management reported having trained 16,530 female community health volunteers and other social workers, as well as 1,700 water, sanitation and hygiene Coordination Committee members, and around 500 district level stakeholders from multiple sectors (Save the Children 2014).

These extensive efforts aimed at raising awareness and understanding appear to be having measurable impact as identified through the process research interviews. For example, two-thirds of respondents in Suaahara sites report being familiar with the aims and content of the program compared with less than 15% in all other PoSHAN study sites. This appears to be the direct result of ensuring that "district and community level stakeholders were clear on the project's mandate, approach and anticipated results." (Save the Children 2014) Orientations were conducted at district level, involving 876 individuals, and at VDC level with over 33,000 individuals.

Trainings were also conducted with local partners, ministry counterparts and even stakeholders not directly involved in program implementation. Roughly one third of respondents across all PoSHAN sites reported having had a training specifically on nutrition. Although this figure is no different from responses at the other PoSHAN sites, the duration of nutrition trainings was longer in Suaahara areas versus other parts of the country - an average of 1.5 days compared with half a day.

Better understanding of the issues may underpin differences in the way respondents perceive the nature of nutrition problems, and hence possible solutions. For example, when asked to list the top contributors to child undernutrition in Nepal, 53% of Suaahara respondents cited 'disease', compared with only 39% elsewhere (significantly different at the  $p=0.0004$  level), while 64% of respondents in Suaahara districts reported 'food utilization' as a problem to be addressed (infant feeding practices, taboos linked to pregnancy, and dietary choices) versus 54% in non-Suaahara sites (also significant, at the  $p=0.0009$  level). However, the belief that illiteracy is a fundamental hurdle to changing behaviours relevant to health and nutrition, was found across all locations.

While specific knowledge of the Nepal government's Multi-Sector Nutrition Plan is still limited in most parts of the country (fewer than 4% of PoSHAN respondents overall could describe the goals of MSNP, suggesting a need for continued awareness-raising by the government), things are a little better in Suaahara sites with 10% reporting correctly. Thus, exposure to, and understanding of nutrition in the Suaahara sites is not restricted to the program itself, but includes a broader understanding of policies in Nepal—in part thanks to the arrival in Suaahara districts of individuals with the appropriate background and training who are able to share their expertise.

Table 2 shows a number of answers to questions about the adequacy of dialogue on, and resources dedicated to nutrition at each respondents place of work. It shows that professionals in Suaahara sites are significantly more likely to feel adequately consulted on the problems that they are having to deal with (which is likely due to the investments made in awareness-raising at district and sub-district levels).

Table 2: Selected responses by decisionmakers in Suaahara versus other PoSHAN research sites

	Suaahara sites % (N)	Other PoSHAN sites % (N)	Odds Ratio	95% CI	P value
Consulted on nutrition	31.25 (75)	24.22 (124)	1.42	1.012, 1.99	0.04
Insufficient resources for nutrition	29.17 (70)	37.70 (193)	0.68	0.488, 0.947	0.02
Discussed child growth	22.50 (54)	17.58 (297)	1.36	0.931, 1.988	0.10
Discussed child nutrition	26.67 (64)	24.80 (127)	1.10	0.777, 1.563	0.04
Management issues main challenge to Suaahara	24.17 (58)	4.30 (22)	7.09	4.222, 11.931	<0.0001

\* Statistically significant differences highlighted in yellow.

These same respondents are less likely (weakly significant) to argue that insufficient resources are being allocated to address nutrition problems – likely because program funds are seen to be flowing to the Suaahara districts where stunting (in particular) is known to be a major concern.

Although there seems to be fairly widespread discussion among colleagues of child growth in Suaahara and other PoSHAN study locations (at least once in the previous month, which is a positive sign for the national agenda), specific discussion of nutrition appears to have been more common in Suaahara than other sites (a weakly significant outcome).

Interestingly, when asked about perceived institutional or other constraints to program implementation, professionals in the Suaahara sites were more likely than others to point to a lack of clarity of roles and responsibilities across sectors (line ministries) when talking about the roll out of MSNP, but to a variety of operational hurdles when talking of Suaahara itself. A range of issues was raised to describe operational hurdles, including challenges of coordinating multiple stakeholders across entire districts, having sufficient time to raise awareness of the importance of nutrition activities, at the community level, countering entrenched cultural and behavioural taboos relating to child care and maternal food restrictions, and moderating expectations (that is, meeting tight project deadlines under challenging circumstances).

**Table 3: How best to promote and support effective cross-sector collaboration for nutrition?**

	Suaahara sites % (n)	Other PoSHAN sites % (n)	Odds Ratio	95% CI	P value
Disincentives or institutional hurdles to collaboration	28.33 (68)	31.25 (160)	0.87	0.620, 1.218	0.41
Had nutrition training	26.25 (63)	15.04 (77)	2.01	1.380, 2.928	0.0002
Insufficient input by NGOs in nutrition	30.42 (73)	32.62 (167)	0.90	0.648, 1.025	0.54
Geography major hurdle to job	25.42 (61)	17.77 (91)	1.58	1.0907, 2.279	0.01
Shared ownership needed to ensure collaboration	31.67 (76)	21.88 (112)	1.66	0.1741, 2.3330	0.004
Allowance needed to ensure collaboration	15.83 (38)	24.80 (127)	0	0.3821, 1.8511	0.005

\* Statistically significant differences highlighted in yellow.

Table 3 offers more detail with regard to perceived challenges and incentives to effective cross-sectoral collaboration. As already noted, more people have had nutrition training in

Suaahara sites, and those already trained tend to strongly promote the need for workshops and information-sharing on nutrition for all stakeholders (not just program-specific professionals) across sectors. That said, even in Suaahara sites, barely a third of the decision-makers interviewed in this first round reported having received nutrition training. That underlines the importance of continuing to expand that activity during the lifetime of the project.

While there is no significant difference in responses across study sites in terms of questions on perceived institutional hurdles to collaboration, there *are* some differences in proposed solutions. Respondents in non-Suaahara sites are significantly more supportive of offering higher financial allowances to promote collaborative actions on nutrition (p=0.005), whereas individuals in the Suaahara locations are

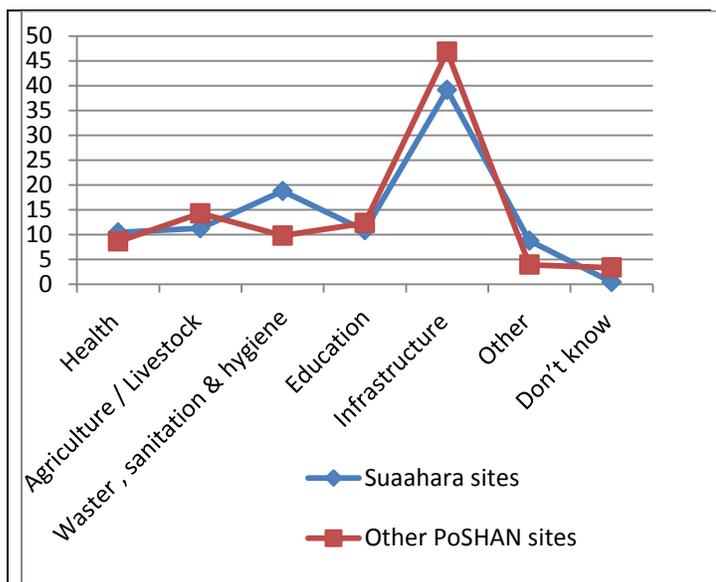
more likely to support the promotion of shared ownership of problems and solutions rather than pecuniary reward.

In other words, it appears that there is stronger professional commitment in Suaahara sites to ‘getting the job done’ (promoting collaborative efforts as a key mechanism for achieving cross-sector goals) compared with other locations where training, sensitization and goal-setting for nutrition have yet to happen with the same urgency and intensity.

Perhaps not surprisingly, respondents in the Suaahara sites are more likely to report logistical and other operational hurdles as a constraint to effective program implementation, since most of those sites are in the mountains where infrastructure, low population density, food insecurity and seasonal access to communities are all major considerations. That said, respondents in non-Suaahara locations also raise these kinds of

constraints when discussing the difficulties they face in implementing effective policies and programmes. As Figure 2 shows, there is a fairly common pattern across all PoSHAN research sites in terms of reported development investment priorities that would enable more effective outcomes in nutrition to be achieved.

Figure 2: Perceived priority investment needs in Suaahara versus other study sites



That said, the logistical problems facing Suaahara and non-Suaahara development practitioners alike does not seem to dim the enthusiasm for the task at hand. Indeed, the most cited challenge to their job remains ‘how to change local people’s behaviours’ for improved health, rather than how to overcome political, institutional or funding constraints. Indeed, although not statistically significant, respondents in non-Suaahara sites were almost twice as likely to argue that more focused collaborative work on nutrition would impose a heavy new burden on their existing administrative duties, and that could serve as a disincentive to take nutrition goals seriously.

Table 4: Which sectors are most pro-nutrition in districts where respondents currently work?

	Suaahara sites % (n)	Other PoSHAN sites % (n)	Odds Ratio	P value
Public Health	37.08 (89)	4.88 (25)	11.48	<0.0001
Agriculture	15.42 (37)	3.13 (16)	5.65	<0.0001
Local Development	7.50 (18)	0.59 (3)	13.76	<0.0001

\* Statistically significant differences highlighted in yellow.

This is potentially important since collaboration requires interlocutors willing to engage in a common agenda. When respondents were asked if they feel that colleagues in other sectors or line ministries are adequately trained and committed to meeting collective responsibilities for multisector actions in nutrition, Suaahara sites were in fact significantly more likely to respond positively, not only in relation to health sector NGOs or to the Ministry of Health, but also in relation to colleagues focused on agriculture and local development more broadly (Table 4).

Again, this is likely because of the efforts made by the Suaahara program to reach beyond the traditional cadre of health workers who deal with nutrition (department of public health, health volunteers, medical professionals), to people in other sectors who do have a defined responsibility for reaching nutrition goals under MSNP but have not traditionally been incentivized, trained or supported to focus their work in this important domain.

**Preliminary Conclusions**

Responding to demand in Nepal and worldwide for policy-relevant findings to support improved design and implementation of complex interventions, this research seeks to understand “the behavior of...professionals and other stakeholders as a key variable in the sustainable uptake, adoption, and implementation of evidence-based interventions.” (NIH 2013)

The current brief identifies important preliminary findings specific to the Suaahara program's first year of activities. These results capture very early impacts of the programs roll-out process. Other briefs will identify responses from KISAN's sites, and from those of other locations where multisector programming is taking place...or not (the districts that can serve as comparators).

The over-riding conclusion from this initial analysis is that the Suaahara program's efforts at explaining its mission and mandate to as wide an audience as possible, linked to nutrition-specific training across sectors at all levels from the district down to the ward, is paying dividends. There is clear evidence of enhanced understanding, commitment and self-critique among a range of several hundred respondents working in locations where Suaahara is currently active. This represents a very positive first step in being able to achieve the nutrition targets set for several years hence.

Continued effort is clearly required to expand the process of upgrading knowledge, attitudes and professional practices of all decision-makers with direct or indirect responsibility for accelerating nutrition gains across Nepal. It is instructive that over 40% of the respondents in Suaahara sites noted that in their experience, resources are now being adequately targeted toward meeting defined nutrition needs compared with only 29% supporting this view in the other PoSHAN sites.

There remains a need for nationwide investment in building and sustaining institutional commitment and human capacity to understand core problems, target the appropriate people, and design, manage and measure cost-effective activities that achieve nutrition outcomes. Suaahara appears to be making important inroads on all these fronts. Its lessons need to be documented and shared widely, and its approach to further expand and sustain gains should be carefully monitored. Similarly, while this first

round of questions focused on individuals' understanding of nutrition issues, programming constraints and opportunities, subsequent rounds will consider the links with agricultural, health and WASH activities in more depth. The survey will be repeated over several more years, with interview teams returning to the same same districts, VDCs and wards to track changing responsibilities and motivations over time, and to link such changes to actual outcomes measured on the ground at household and individual levels.

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Comments and suggestions on how to improve this work, requests for specific findings and proposals for future collaboration should be directed to the Nutrition Innovation Lab's Country Representative, Diplav Sapkota, at [Diplav.Sapkota@tufts.edu](mailto:Diplav.Sapkota@tufts.edu)/tel: 015260459.

### References

Heaver R. 2005. *Strengthening country commitment to human development*. Washington, D.C.: World Bank.

NIH (National Institutes of Health, Fogerty International Center). 2013. Updated May 2013, last accessed July22, 2014. <http://www.fic.nih.gov/News/Events/implementation-science/Pages/faqs.aspx>

Ravallion, M. 2013. Are we really assessing development impact? *Jou. Econ Lit.* 50 (1): 103-14.

Save the Children. 2014. *Suaahara Annual Report, August 1, 2012 – July 31, 2013*. AID-367-A-11-00004. Kathmandu, Nepal.

Timmer P, W Falcon and S Pearson. 1983. *Food Policy Analysis*. World Bank/Johns Hopkins University Press, Baltimore, MD.

Webb P, Ghosh S, Kennedy E, West K, Klemm R, Sapkota D, Manohar S and Griffiths J. 2013, *Research in Asia: Approach, Methods and Protocols*. [http://www.nutritioninnovationlab.org/wp-content/uploads/2013/01/Briefing-14-RBP14\\_Consolidated\\_Research\\_Protocols\\_Asia.pdf](http://www.nutritioninnovationlab.org/wp-content/uploads/2013/01/Briefing-14-RBP14_Consolidated_Research_Protocols_Asia.pdf)

World Bank. 2010. *What Can We Learn from Nutrition Impact Evaluations?* Independent Evaluation Group. Washington, D.C.

West, K. 2014. *PoSHAN community studies: Baseline Findings – 1<sup>st</sup> Annual Panel Survey*. Presentation made at the Child Health Division, Ministry of Health and Population, Government of Nepal, Kathmandu, February 18<sup>th</sup>, 2014.