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**LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND
SUSTAIN WATER, SANITATION AND HYGIENE SERVICES**

**Integrating WASH and nutrition to reduce stunting
in Cambodia: from discourse to practice**

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A growing body of evidence on the contribution of water, sanitation and hygiene (WASH) in improving young children's growth in the critical "first 1,000 days" window, from pregnancy through the age of two years, means that efforts to integrate WASH and dietary improvement activities to improve nutritional outcomes are gaining momentum. Integration, while offering additional benefits of program efficiencies, cost-effectiveness and mobilization for sustained local action presents challenges of focus and scope. How programmes integrate in practice for nutritional benefit for young children is critical. In Cambodia, international cooperation through the NOURISH Project supports the Royal Government of Cambodia to accelerate efforts to reduce chronic malnutrition in children through an integrated WASH and nutrition approach. This paper discusses the conceptual framework for integration, gives practical examples of integrated activities and reflects on the challenges from a WASH practitioner's perspective to improve WASH services within this framework at project mid-point.

Background

Under nutrition is directly caused by inadequate dietary intake and/or illness burden and indirectly related to many factors, including contaminated drinking water and poor sanitation and hygiene. Even in the absence of diarrhea, a fecal-contaminated environment is linked to chronic undernutrition, through enteric dysfunction and worms, which reduces utilization of essential nutrients. Use of safe water, sanitation facilities, and good hygiene can positively affect nutritional outcomes by addressing both immediate and underlying causes of malnutrition (Dangour, 2013).

Chronic malnutrition or stunting, measured through low height-for-age, is the most prevalent form of child malnutrition. Stunting is a reflection of a child's overall development and well-being and has immediate and life-long consequences on children, communities and nations. Stunting is preventable during the "first 1,000 days"—from the start of pregnancy until a child's second birthday (Black, 2013).

The challenge for Cambodia

In Cambodia, 32.4% of children are stunted (CDHS, 2014). Cambodia's Council for Agriculture and Rural Development (CARD) estimates that stunting costs the country nearly \$120 million in lost gross domestic product annually (Moench-Pfanner, 2016). Stunting is significantly associated with low sanitation coverage (Ikeda, 2013). Cambodia has one of the highest rates of people without access to improved sanitation in Asia; nearly 70% of the rural population in Cambodia still lives without a safe, sanitary toilet, which translates into an estimated 9.4 million people who lack access to improved sanitation; and a further 4.3 million people who do not have access to improved water supply (JMP/WHO, 2015).

The gender profile of Cambodia underlies high rates of child malnutrition directly and indirectly. Although women in Cambodia have equitable access to primary education, health services, labour force participation and micro/small business ownership, and decision-making at home, in the face of economic

constraints and high labour migration of men, women carry a triple burden of home, agriculture and social responsibilities without land or asset ownership, in addition to the impacts of poor sanitation and hygiene.

NOURISH, an integrated approach to reducing stunting

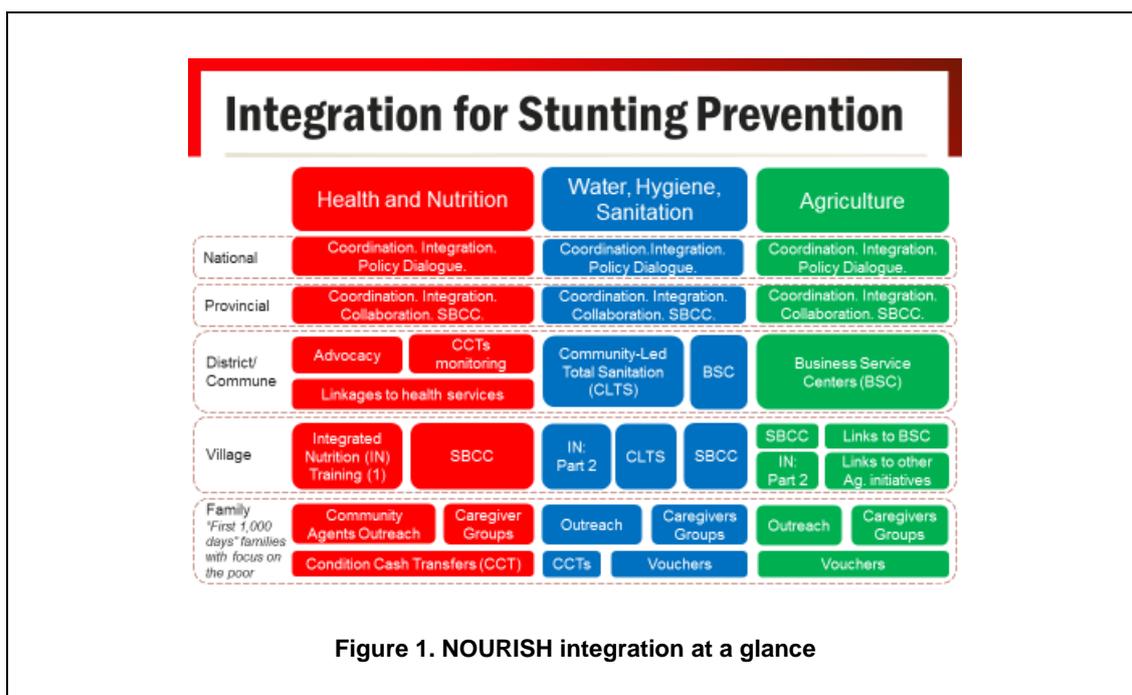
The Royal Government of Cambodia (RGC) is committed to addressing these challenges through multi-sectoral policies and working groups, complementing sector-specific initiatives. In 2014 Cambodia adopted the National Strategy for Food Security and Nutrition (2014-2018) that integrates WASH, nutrition, social protection and agriculture at the community level and became the 53rd member to join the Scaling Up Nutrition (SUN) Movement. The National Strategic Plan for Rural Water Supply, Sanitation and Hygiene 2014-2025 envisages universal access to water supply and sanitation in Cambodia and the National Strategic Development Plan (NSDP) includes a framework for integrating gender into national planning.

With funding from the United States Agency for International Development (USAID) and the U.S. Presidential Initiative Feed the Future, the NOURISH Project is supporting the Royal Government of Cambodia to translate this commitment and evidence into practice. As an integrated nutrition, sanitation and hygiene, and agriculture project it is working to address the complex, multi-faceted causes of stunting in Cambodia - poverty, lack of access to quality food and nutrition services, unsanitary environments, and social norms and practices. It is implemented in close collaboration with the Royal Government of Cambodia by Save the Children in partnership with SNV and The Manoff Group and three local partners—Partners in Compassion, Operations Enfants du Cambodge, and Wathnapheap. To achieve its goal, NOURISH employs four strategies: (1) strengthen community delivery platforms to support integrated nutrition; (2) create demand for health, WASH, and agriculture practices, services, and products; (3) expand supply of WASH and agriculture products using the private sector, and (4) enhance sub-national government and civil society capacity in integrated nutrition. Gender sensitive and transformative actions are integrated throughout each strategy. By the end of the project, NOURISH is expected to reach over 600,000 people and 43,000 women and children under two in 560 under-served rural villages across Battambang, Pursat, and Siem Reap provinces in Cambodia from 2014 to 2019.

Integration in practice

There is growing interest in WASH-nutrition integration to yield complementary and synergistic effects. Several trials are underway to test the effects including WASH Benefits trials in Kenya and Bangladesh as well as an Impact Evaluation of NOURISH. The NOURISH Impact Evaluation will compare the effects of three models to a control group: 1) WASH programming using CLTS coupled with supply chain strengthening and social and behavior change communication (SBCC); 2) Nutrition programming using community-based growth promotion to improve infant and young child feeding through routine growth tracking and action, SBCC as well as conditional cash transfers for the poorest families; and 3) Integrated WASH-nutrition programming combining the activities of 1 and 2. The evaluation design randomizes the location of each model but otherwise has no role in designing or managing the interventions. As such, it will also evaluate “real world” programming realities for the field teams as they seek to integrate in practice. At the NOURISH project mid-term, this paper seeks to share the experiences of the field team in integrating WASH and nutrition under model 3 listed above whilst reflecting on the lessons learnt and challenges from a WASH practitioner’s perspective.

NOURISH approaches integration pragmatically, seeking practical opportunities to “integrate” where it makes sense, to coordinate or complement where it may not be possible and to take calculated risks and learn through trial and error. The organisational structure of the project team enables this by bringing together both technical specialists (and their partner organisations) alongside district level staff and community based partners, to build evidence through tailored formative research, to develop strategies (e.g. SBCC, gender), to strengthen capacity, jointly monitor, plan and report. Significant efforts are invested in joint quarterly and annually planning processes in which the whole project teams (over 70 people) sit together, bringing integration in practice to life in the process. Figure 1 illustrates a summary of the integration of the sectors at the different levels of intervention.



The following section presents and discusses two integration opportunities through demand and supply activities: the social and behavior change communication (SBCC) campaign and private sector engagement to strengthen the supply chain. Together they ensure local action supported by international cooperation to add value to improvements in WASH and nutrition in the poorest rural communities.

Integrated stunting prevention SBCC campaign

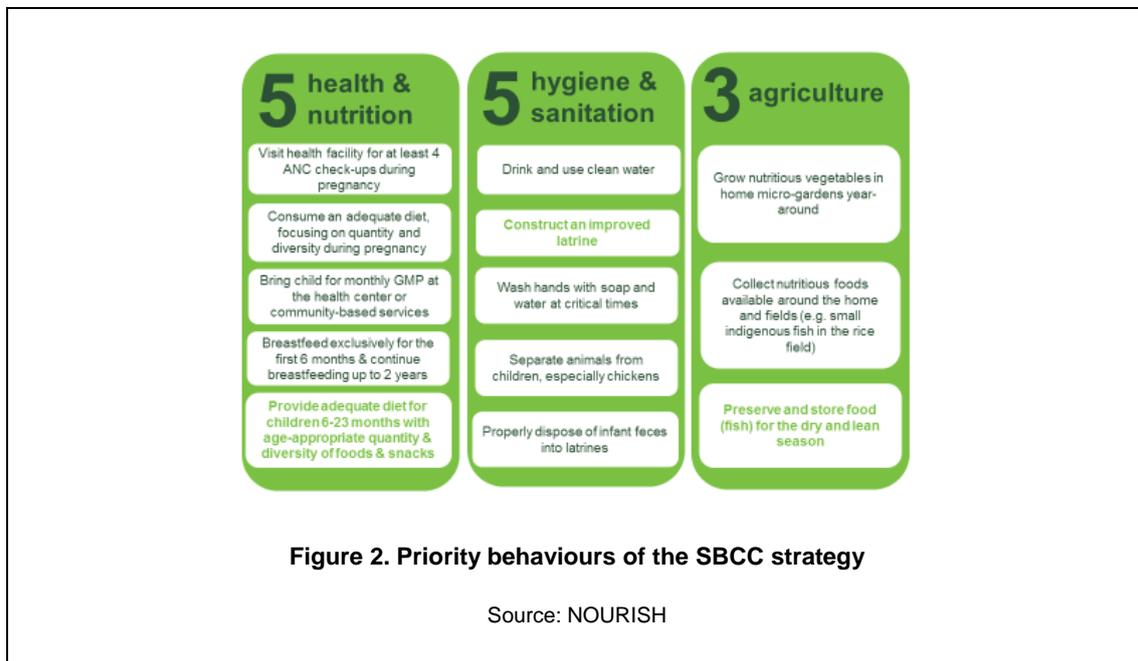
To promote social norms and behaviours that prevent stunting, NOURISH developed a social and behavior change communication (SBCC) campaign called ‘Grow Together’, based on formative research that unites WASH and nutrition behaviors under a single brand. The Grow Together campaign connects rural families, health workers, community WASH and health volunteers, leaders, and local businesses to work together for child growth with tailored materials for them, across WASH and health/nutrition.

The campaign focuses on 13 evidence-based behaviors across WASH, nutrition/health and agriculture as illustrated in Figure 2 below. With “first 1,000 days” families at its core, the campaign aims to improve nutrition during pregnancy through improved diet and antenatal care. For children, the campaign promotes attendance at monthly nutrition services, exclusive breastfeeding for the first 6 months and continued breastfeeding up to 2 years, along with optimal feeding for children from 6-23 months. To boost food security, the campaign calls for local innovations to increase access to nutritious foods year-round by setting up micro-gardens, and preserving and storing fish for children and pregnant women. In the WASH space, the campaign also promotes drinking clean water (using water filters), construction of improved latrines (through CLTS campaigns and supply chain support), washing hands with soap at critical times, as well as separating animals from small children and properly disposing of infant stool.

The campaign is strategically rolled out in three consecutive waves — Unite, Grow and Thrive — each building upon the other. The Unite wave set the tone for the campaign. Its design was carefully crafted to be appealing, understood and have a call to action across the sectors—focusing on the underlying social norms needed to build a foundation for the next waves which focus on specific behaviors.

The foundational wave taps into core values and emotional triggers of caring warm families and unified communities where everyone works together around child growth and development. These values and all of the creative elements span WASH and health/nutrition; the campaign tagline ‘grow together’ has profound meaning in Khmer and yet can be interpreted in a personal way by each of its targeted audiences for WASH and health/nutrition. The subsequent waves of the campaign include integrated materials, such as tools for community volunteers that promote WASH and health/nutrition through tailored home visits, as well as sector specific materials, such as sanitation marketing materials for use through CLTS and door-to-door follow up. Regardless, all 20 plus campaign materials for diverse media carry the same “look and feel” to ensure immediate links to the core values and the motivations to take action. NOURISH-empowered Grow

Together ambassadors—health volunteers, agriculture extension workers and WASH focal persons bring tailored and practical support on WASH and nutrition actions to the communities and families they serve.



Private sector engagement and integrated vouchers

Building on the SBCC strategy and wider activities and to accelerate demand for core stunting prevention products among the poorest ‘first 1,000 days’ families, NOURISH offers vouchers that give discounts on three products:

- Locally produced water filters;
- Food baskets with local, nutrient-rich vegetables and animal-source foods during two lean months;
- Locally produced latrine materials: platform and sub-structure of a low-cost toilet.

To be eligible, beneficiaries need to be registered as part of the first 1,000 Days Conditional Cash Transfer (CCT) scheme in which the women can receive up to six payments—to reach a total of \$65—over the “first 1,000 days” after completed use of specific services, called conditions. These conditions include at least four antenatal care visits, institutional childbirth, postnatal care and monthly Growth Monitoring and Promotions for children under two and a handwashing device with soap in use.

Small and medium enterprises (SME) which sell these WASH and food products track vouchers redeemed through an Interactive Voice Response (IVR) system. The IVR system saves time and resources collecting information from SMEs and streamlines payments to these small businesses, which can least afford to wait for reimbursement. As of February 2017, NOURISH has provided 556 vouchers for water filters and 1,237 food baskets to eligible CCT beneficiaries. A total of 349 vouchers for water filters and 463 vouchers (a set of two) for food baskets with a \$5 co-payment have been redeemed with participating suppliers.

Wider activities have focused on developing the capacity of local private sector actors to engage or expand their businesses into rural sanitation, including training, coaching, initiatives to build the Business-to-Government (B2G) connections and improve quality control management. Currently, NOURISH is developing the Business Service Center (BSC) concept to provide services to SMEs to support their ability to market and supply nutrition, agriculture and WASH products. A rapid assessment in 2016 involving 32 SMEs and 28 key informants assessed demand for and supply of business support services and analyzed the potential effectiveness of three BSC models. As a result, two models are being further developed with businesses/associations to provide guidance and support initially to WASH SMEs on product bundling, strategic sales techniques as well as business planning and quality assurance.

As a result of NOURISH, 13 local SMEs have so far improved their capacity to produce high-quality latrines while responding to the increasing demand in 329 villages where NOURISH supported CLTS in collaboration with the Provincial Departments of Rural Development. As a result, rural households have so

far constructed 5,241 latrines increasing access to improved latrines for 20,516 people. The SMEs collaborating with NOURISH have sold over 3,100 latrines since October 2015, a two-fold increase in their monthly sales

Discussion

The SBCC campaign brings together what at first appears as disparate approaches, in that care and feeding problem-solving is often focused at the household level whilst sanitation improvements and open defecation free movements, triggered by CLTS are area wide, for whole villages, communes and beyond. Under the SBCC strategy, the home visits for example include the priority behaviors for both WASH and nutrition, including the use of a latrine, handwashing with soap and use of water filters. At the community level, both CLTS and community dialogues work together to reinforce and promote local collective action. Routine community fairs support these activities by bringing SMEs together with community members through interactive learning stations on WASH and WASH products (i.e. handwashing with soap, demonstration of water filters, and sanitation supply models and discussions) and nutrition (i.e., cooking together, micro-garden demonstrations and child feeding games).

Whilst NOURISH is providing such examples of integrated approaches in practice, the challenge is always to expand and allow these insight to inform larger efforts and better coordination. In Cambodia the groundwork is being laid for national level integration. In September 2015, CARD established a cross-sectorial WASH and Nutrition Sub-Working Group to catalyze and guide integrated actions by local governments and development partners. The Sub-Working Group is co-chaired by CARD and NOURISH. This balances inherent challenges in working within traditionally vertical systems, across policy initiatives. Within the WASH sector, efforts through already established Water and Sanitation forums are stronger and reach the local level better than what is possible within the health sector.

From a WASH perspective, sanitation movements in Cambodia and regionally have been demonstrated to benefit from economies of scale, in order to engage government leadership beyond the community level and change widely held social norms. It has been important for the WASH teams to seek to connect community and commune level activities with district level governance and stakeholders through planning, monitoring and capacity building to complement and align integration efforts. In the first two years, the integrated practice of NOURISH has resulted in measurable WASH improvements although progress was slower than expected. This reflects, in part, the time needed for integrated approaches to be developed and embedded by and within teams but also the time investment required to trigger sanitation movements and build momentum across communes.

Integration has proven more challenging when it interacts with the private sector sphere and specifically the use of incentives and vouchers for poorer families to purchase WASH products. Subsidies and incentives of any kind, including vouchers, within the sanitation sector in Cambodia are a complex issue and challenging to implement, sustainably or at scale. Within the first year a WASH Supply Chain and Market Analysis study was undertaken which was used to guide what has been a phased approach to manage the potential risk of subsidies distorting the sanitation market. Drawing on SNVs experience, the vouchers are made available to CCT beneficiaries only after a village has achieved a minimum threshold of sanitation coverage (75%), to avoid potential delaying in investment by non-poor households. At the time SNV worked closely with Ministry of Rural Development's working group on the development of its guiding principles for sanitation subsidies.

Conclusion

Through bringing expertise and commitment together at all levels –including through WASH and nutrition experts– integration is effectively targeting WASH and nutrition efforts to the most vulnerable—women and young children in poor rural villages. It is also stimulating family action in a way that families and their wider communities better understand all of the actions needed to support improved children's growth: WASH, health and nutrition. Experiences at mid-term also suggest operational efficiencies of the WASH and nutrition integration approach at the local level. The same local community structures support the full range of WASH and nutrition social and behavior change priorities to achieve children's healthy growth and development. Local capacity strengthening efforts encompass WASH and nutrition so that the structures can work together to foster and sustain changes for all of the children in the communities, beyond one sector. Emerging experience with this “integration made easy” approach also shows the value of working with the private sector informed by evidence and market analysis, to support demand creation activities and

strengthen supply chains. Private sector engagement not only builds up existing local resources, but also ensures ownership of changes and sustained use of stunting prevention behaviors and practices.

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References

- BLACK RE, VICTORA CG, WALKER SP, BHUTTA ZA, CHRISTIAN P, DE ONIS M et al. 2013 Maternal and child under nutrition and overweight in low- income and middle-income countries. *The Lancet* 2013; 382(9890).
- CARD 2014 Cambodia National Strategy for Food Security and Nutrition (2014-2018). Council for Agricultural and Rural Development (CARD) in consultation with the Technical Working Group for Social Protection and Food Security and Nutrition. Phnom Penh, Cambodia.
- DANGOUR AD, et al. 2013 Interventions to improve water quality and supply, sanitation and hygiene practices, and their effects on the nutritional status of children. *Cochrane Database Syst Rev.* Aug 1;(8).
- IKEDA, NAYU, IRIE, Yuki, & SHIBUYA. Kenji 2013 Determinants of reduced child stunting in Cambodia: analysis of pooled data from three Demographic and Health Surveys. *Bulletin of the World Health Organization* 2013; 91:341-349.
- MOENCH-PFANNER R., et al. 2016 The Economic Burden of Malnutrition in Pregnant Women and Children under 5 Years of Age in Cambodia. *Nutrients*, 8, 292.
- National Institute of Statistics, Directorate General for Health, and ICF International 2015 *Cambodia Demographic and Health Survey (CDHS) 2014*. National Institute of Statistics, Directorate General for Health, and ICF International. Phnom Penh, Cambodia, and Rockville, Maryland, US.
- SPEARS D. 2013 *How Much International Variation in Child Height Can Sanitation Explain?* Policy Research Working Paper 6351. World Bank, Washington, DC.
- USAID 2015 WASH and Nutrition Implementation Brief. Water and Development. USAID, Washington, DC.
- WHO/UNICEF 2015 Cambodia: estimates on the use of water sources and sanitation facilities (1980 - 2015), Joint Monitoring Programme. World Health Organization: Switzerland.
- WHO, UNICEF, USAID 2015 *Improving Nutrition Outcomes with Better Water, Sanitation and Hygiene: Practical Solutions for Policies and Programs*. World Health Organization: Switzerland.
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