Improving the nutritional status of tea farming families in Indonesia
First results

Global Alliance for Improved Nutrition (GAIN)
Business Watch Indonesia (BWI)
Netherlands Embassy in Jakarta
Improving the nutritional status of tea farming families in Indonesia
First results
Food security and nutrition is one of the spearheads of the development cooperation policy of the Ministry of Foreign Affairs of the Netherlands that aims for “zero hunger, zero malnutrition”.

This is reflected in the Multi-Annual Strategic Plan 2014-2017 of the Embassy of the Kingdom of the Netherlands in Indonesia. During this period, the Embassy has funded projects to improve the nutrition of tea- and cocoa farmer households in Indonesia, which were involved in the tea- and cocoa programmes funded by the Ministry of Foreign Affairs of the Netherlands, through the Sustainable Trade Initiative (IDH). This targeting of beneficiaries allowed for an increased positive impact on the welfare of tea- and cocoa farmer households, since it has been shown that increased income from the sales of cash crops like tea and cocoa alone does not necessarily result in improved nutrition.

The Embassy is pleased to present this publication on the nutrition project targeting tea farmer families, implemented by Business Watch Indonesia (BWI) and the Global Alliance for Improved Nutrition (GAIN), which serves as a good example of an integrated approach that has resulted in improved nutrition. Through dissemination, the best practices and lessons learned of this project can be used by actors in the tea supply chain in Indonesia and abroad, and potentially by actors in other supply chains including many small-scale farmers.

Mrs. Sarah Sijses,
Senior Policy Advisor at the Netherlands Embassy in Jakarta, Indonesia
Introduction

Worldwide, millions of people are involved in the production and processing of tea, while many more rely on it indirectly for their income. Even though tea provides these families with an income, this does not necessarily result in improved nutrition for the family. Many tea farmer families face difficulties such as limited access to nutritious foods due to limited availability and insufficient income to purchase nutritious foods. In Indonesia, major tea producing areas are among those with the highest under-nutrition rates.

Under-nutrition can be caused by a shortage of food consumption resulting in a shortage of energy intake, or by poor quality of the diet which results in a shortage of micronutrients. While a lack of calories results in hunger and can be visible in individuals, the consequences of micronutrient deficiencies are often hidden. Therefore, this form of under-nutrition is called ‘hidden hunger’. Monotonous diets, mostly based on staple crops, such as maize, wheat, rice and cassava, are a common cause of hidden hunger. They provide a large share of energy but relatively low amounts of essential vitamins and minerals. One of the visible consequences of such a poor diet is stunting, meaning that children are too short for their age. Growth failure in the first years of a child’s life, leads to irreversible damage, including reduced work capacity and productivity and reduced school performances. Furthermore, both illness and mortality are higher among stunted children. The condition can even be inherited from one generation to the next: a stunted mother has a higher chance to deliver a child with a low birth weight which has a higher chance of growing into a stunted adult.

‘Hidden hunger’ due to micronutrient deficiency does not produce hunger as we know it. You might not feel it in the belly, but it strikes at the core of your health and vitality.”

Kul C. Gautam, former deputy executive director of UNICEF.
“Under-nutrition is both a consequence and a cause of poverty. Childhood under-nutrition makes learning more difficult and ill health more likely, which hinders a child’s capacity to secure a job as an adult, and the cycle of generational poverty and under-nutrition continues.”

UNICEF

Business case for investing in nutrition

Improving the nutrition of farmers and workers and thus reducing stunting and illness, is a good investment for the tea industry. There are three advantageous reasons for investing in improved nutrition of tea farmer families:\n
1. Well-nourished farmers and workers are healthier and may be more productive, meaning they are less prone to sickness and absenteeism.
2. Well-nourished children have the potential to reach their full cognitive and physical potential, helping to secure a healthy future workforce.
3. Investing in the nutrition of producers is a good way to secure brand integrity, maintain license to operate and avoid reputational risks.

In order to address nutrition insecurity in tea supply chains, GAIN aims to develop a global model to improve the nutrition of tea farming families. The first pilot of this model, the Nutrition Tea Project, started in Indonesia in 2013. GAIN partnered with BWI, with support from the Embassy of the Kingdom of the Netherlands, to improve the nutrition of farmers involved in the Lestari Sustainable Tea Program. The Lestari Tea Standard is a national standard for tea and aims to support the inclusion of smallholder farmers in international certification systems and to increase the market of sustainable tea in the main tea producing countries of the world. The Lestari Tea Standard and certification system was developed in 2008, as a result of multi-stakeholder discussions initiated by Solidaridad, BWI and IDH. The Nutrition Tea Project used the existing structure of the Lestari Sustainable Tea Program to reach smallholder farmers. It was implemented in both West and Central Java, reaching 32,000 tea farmer families.

This publication aims to give insight into the opportunities for tea supply chain actors to improve nutrition security. It presents the Nutrition Tea Project implemented in Indonesia and shows the lessons learned and successes reached because of this intervention. Furthermore, this document also presents opportunities for other locations and supply chains to invest in a healthy and sustainable supply chain.
Approach

Aim of the program
The Nutrition Tea Project in Indonesia aimed to improve the food and nutrition of 32,000 tea farmer families in the Lestari Sustainable Tea Program, living in 14 different tea producing districts in West- and Central Java. The three sub-objectives of the program were: 1) to enhance the awareness of these tea farmer households regarding the importance of nutrition; 2) to increase the availability and accessibility of nutritious foods for these tea farmer households; and 3) to establish a support system for improving nutrition in these 14 districts.

The Nutrition Tea Project recommended that farmers diversify their diet and consume meals composed of a larger variety of food groups. In this way, their diets will provide more of their nutrient needs. Farmers were encouraged to expand their diets beyond starchy staples, and to add foods from other food groups, such as dark green leafy vegetables and fruits. It is known that when women consume at least five out of ten food groups (see Figure 1) on a daily basis, they are more likely to have adequate nutrients in their diet. Since dietary diversity is relatively easy to measure and gives a good indication of the quality of the diet, the dietary diversity score was used as the main indicator in this intervention.

Program at a glance

<table>
<thead>
<tr>
<th>Partners:</th>
<th>Business Watch Indonesia, GAIN and tea cooperatives</th>
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</thead>
<tbody>
<tr>
<td>Time period:</td>
<td>2013 – 2015</td>
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<tr>
<td>Reach:</td>
<td>32,000 tea farmer households, consisting of approxi-</td>
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<tr>
<td></td>
<td>mately five household members each. The mothers</td>
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<tr>
<td></td>
<td>were the main targeted beneficiaries.</td>
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<tr>
<td>Funded by:</td>
<td>The Netherlands Embassy in Jakarta, Indonesia</td>
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</tbody>
</table>

At least five out of ten food groups a day

Figure 1. The dietary diversity score was used as the main indicator of an adequate diet in the Nutrition Tea Project. The minimum dietary diversity for women is defined as at least five out of ten food groups a day.
Dietary diversity was measured among women*, since this dietary diversity score was validated in women and they are most likely the ones responsible for food choices of the household. These women produce, process and prepare food for the family. The Nutrition Tea Project aimed to reach these women, often a female farmer or the wife of the farmer. However, the involvement of men is equally important: they need to be aware of the importance of nutrition since they are often responsible for the household expenditures. Adequate nutrition will only become a priority in the household if both men and women are aware of its importance.

**Partners in establishing a Nutrition Tea Project**

BWI and GAIN co-created the Nutrition Tea Project in Indonesia. The role of BWI was to develop and lead program implementation in Indonesia, while GAIN provided assistance on program design and conducted the monitoring and evaluation. In order to increase efficiency and sustainability, existing agricultural structures were used for delivering the intervention. BWI and GAIN partnered with tea farmers and tea factories in order to reach tea farmer families that were involved in the Lestari Tea Program.

If a Nutrition Tea Project is implemented in another location or supply chain, the aim is always to work together with the private sector, the government and an implementing partner. The role of these partners differs depending on the situation and available agricultural structures in the project area.

* The dietary diversity score is measured among women of reproductive age (15-49 years of age).
4 Intervention

“Before the training I thought that healthy food was something expensive, but now I know that healthy food is available everywhere around us.”

Mrs. Romanah (25 years)

Design of the intervention

In the Nutrition Tea Project Indonesia, two pathways were used to achieve impact. The agricultural structure was used to reach both male and female farmers. Additionally, there was the opportunity to use the existing health structure.

Figure 2 presents the design of the intervention: through the agricultural structure, the project aims to increase awareness of the importance of nutrition and to increase the availability and accessibility of nutritious foods. Within a year, 32,000 farmers were reached. They received training on good nutrition practices and food processing, as well as training on home gardening. For the training, GAIN used the infrastructure of the Lestari Sustainable Tea Program, meaning that BWI trained the master trainers, these master trainers then train a number of lead farmers and these lead farmers were responsible for training of their fellow farmers (Figure 3a). Using the same trainers for the Nutrition Tea Project as for the Lestari Sustainable Tea Program ensured the expertise of the master trainers and a trusted learning environment.

**Figure 2. Design of the intervention**

<table>
<thead>
<tr>
<th>Agricultural structure</th>
<th>Health structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why</td>
<td>Increase availability and accessibility of nutritious foods</td>
</tr>
<tr>
<td>Increase awareness about the importance of nutrition</td>
<td></td>
</tr>
<tr>
<td>What</td>
<td>Training on how to establish a home garden</td>
</tr>
<tr>
<td>Training on good nutrition practices and food processing</td>
<td>Training on how to establish a home garden</td>
</tr>
<tr>
<td>How</td>
<td>Training of agricultural master trainers</td>
</tr>
<tr>
<td>Where</td>
<td>1. Monthly meeting of the farmers’ forum for nutrition</td>
</tr>
<tr>
<td></td>
<td>2. Monthly women’s meeting</td>
</tr>
</tbody>
</table>
“We are grateful that we can learn about nutrition even though we did not have the chance to attend higher education.”

Mrs. Tumini (40 years)

The health structure gave the opportunity to involve nutrition ambassadors, who were members of the community themselves and were trained to support the community in changing their dietary behaviour (Figure 3b).

As shown in Figure 2, both the agricultural and health structure made use of existing meetings: the women of the community had a monthly meeting, and so did the farmers’ forum for nutrition. Both men and women were reached through the trainings and via nutrition ambassadors. Figure 4 presents the reach of the intervention.

![Figure 3a. Implementation structure for the agricultural structure](image)

![Figure 3b. Implementation for the health structure](image)

![Figure 4. Reach of the intervention](image)

<table>
<thead>
<tr>
<th>Agricultural structure</th>
<th>Health structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training of 20 master trainers</td>
<td>Training of 320 nutrition ambassadors</td>
</tr>
<tr>
<td>Training of 960 lead farmers</td>
<td></td>
</tr>
<tr>
<td>Training of 32,000 tea farmer households</td>
<td></td>
</tr>
</tbody>
</table>
1. Increase awareness about the importance of nutrition

To increase awareness about the importance of nutrition and to increase the motivation to follow dietary recommendations to consume at least five out of ten food groups a day, behaviour change communication was used. Complementary to the training, tools were developed to create awareness and to reinforce behaviour.

**Training** Tea farmer families*

<table>
<thead>
<tr>
<th>Good nutrition practices</th>
<th>Food processing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2 days</strong> How to improve nutrition for the family; the importance of nutrition and dietary diversity.</td>
<td><strong>1 day</strong> How to put together a diverse menu and ensure food safety; the importance of handwashing.</td>
</tr>
</tbody>
</table>

**Tools** Master Trainers / Tea farmer families

**Master trainers**
- Training manual and PowerPoints for the master trainers
- Manual for a healthy menu

**Reinforcement**
- Booklet with frequently asked questions

**Tea farmer families**
- Video about a healthy diet
- Factsheets about nutrition and lifestyle

- Dietary diversity tracking sheet
- Stickers and pins
- Comics and games

* The implementation structure of the training is presented in Figure 3a.

2. Increase availability and accessibility of nutritious foods

This aspect of the intervention aimed to increase the availability and accessibility of nutritious foods mainly through promoting home gardening of nutritious foods. Farmers already have expertise in cultivating crops and consequently know how to cultivate vegetables and fruits. The training offered ideas on how to do this in small areas and elaborated on the importance of production for consumption instead of sale. Seeds were provided to the farmers as a reinforcement tool.

**Training** Tea farmer families*

<table>
<thead>
<tr>
<th>Home gardening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 day</strong> How to grow vegetables and fruits in small areas; the importance of production for consumption instead of sale.</td>
</tr>
</tbody>
</table>

**Tools** Tea farmer families

**Reinforcement**
- Provide seeds or sprouts to start a home garden.

* The implementation structure of the training is presented in Figure 3a.
3. Establish a support system

Nutrition ambassadors promoted dietary diversity in their community, stimulated community engagement and assisted community members in behaviour change. This was done at both personal level (e.g. answering questions of community members) and community level (e.g. giving information at a women’s meeting). The information they gave was supported by factsheets as an awareness tool.

**Training** Nutrition ambassadors

**Community support**

1 day Why is nutrition important for farmers; how to assist the community in behaviour change and how to monitor nutrition activities in the community.

**Tools** Tea farmer families

**Awareness**

Factsheets about nutrition and lifestyle
5 Results

Fig. 5: Perceived constraints in providing nutritious foods

To measure the impact of the intervention, data on perception, production and consumption of foods was collected in two cross-sectional surveys among 252 female respondents at baseline (May 2014) and endline (May 2015).

### Perception

<table>
<thead>
<tr>
<th>Perception</th>
<th>Production</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent’s opinion about the current food consumption of her family and challenges she faces in providing nutritious food</td>
<td>Food production at home</td>
<td>Number of food groups the respondents consumed the day before the interview and the frequency of consumption of different food groups.</td>
</tr>
</tbody>
</table>

#### Nutritious foods are expensive

- Baseline May 2014: 36%
- Endline May 2015: 55%

#### Lack of nutrition knowledge

- Baseline May 2014: 27%
- Endline May 2015: 10%

#### No time to prepare nutritious foods

- Baseline May 2014: 19%
- Endline May 2015: 22%

#### Not enough money to buy nutritious foods

- Baseline May 2014: 73%
- Endline May 2015: 76%

The main focus of the intervention was behaviour change, which resulted in a change of perception and an increase of knowledge after the intervention (Figure 5). For example, knowledge surrounding nutritious foods increased. Also, some survey participants learned that nutritious foods are not necessarily expensive. On the one hand, availability and affordability is increased through home production, and on the other hand, participants learned about affordable food options within each food group. However, the lack of financial resources remains the single largest constraint in accessing nutritious foods for many households. These observations are in line with the goal of the project, which was not to generate additional income for the farmers, but to show opportunities for a healthy diet with a limited income.
The cultivation of vegetables by tea farming households in the study increased and diversified in both West and Central Java (Figure 6). Through cultivating vegetables for their own consumption, tea farmer families were able to diversify their diets. After the intervention, foods from two different food groups were cultivated, which could mean a substantial improvement of the diet. In total, the number of respondents cultivating vegetables increased from 19% at baseline to 72% at endline. Growing fruits increased from 26% at baseline to 73% at endline and breeding animals increased from 28% to 72%.

Consumption
Food frequency
The frequency with which survey participants consumed several food groups increased significantly after the intervention (Figure 7). Consumption of protein sources, such as eggs and fish, increased substantially, as did the consumption of vegetables, such as orange vegetables. Participants who normally consumed these foods monthly, started to consume them weekly, while participants who normally consumed them weekly, started to consume them on a daily basis.

Dietary diversity
The dietary diversity score was used as the main indicator for this intervention, since there is a clear link between an increased consumption of food groups and the nutritional adequacy of the diet. The Minimum Dietary Diversity for Women, defined as at least five of the ten food groups, is used as a proxy indicator to reflect the micronutrient adequacy of women’s diets. The median dietary diversity score increased significantly from 3 [IQR: 3.5] at baseline to 5.5 [IQR: 4.7] at endline (Fig. 8).

Fig. 6: Percentage of respondents cultivating this vegetable
Whereas less than 10% of the participants met this minimum recommendation before the intervention, 80% of the participants consumed five food groups or more after the intervention. These results suggest that by altering perceptions around the importance of diverse diets, and the ability to access nutritious foods, including through home production, improvements in dietary diversity were achieved.

While these results are very encouraging, they should be interpreted with some caution. A comparison group (people from the same area who did not receive the program) was not included in the study. It is therefore possible that some of the dietary changes observed between baseline and endline were related to other changes occurring in the area unrelated to the program. However, the endline survey was done in the same season as the baseline so dietary changes are not likely due to seasonal variation in food availability.

Also, the sample of respondents in the survey may not be representative of all the beneficiary households in the project. The evaluation survey was conducted by the tea farmers themselves. While self-monitoring of programs can engage and empower program participants, this can lead to biased results and the quality of data may be limited due to minimal training and lack of supervision for data collection. The results presented here are suggestive of the potential for this nutrition program approach, and more rigorous evaluation methods are being applied in ongoing programs modelled after this one in Indonesia.

**Intended and unintended impact**

- Following a visit of the minister of Social Affairs to the Nutrition Tea Project, the Indonesian government committed to scaling up the Nutrition Tea Project to other villages starting in the Nusa Tenggara Timur region.
- One of the villages in West Java that participated in the Nutrition Tea Project, received the national award for a ‘Healthy and Nutritious Village’ from the Indonesian government.
- The Nutrition Tea Project created enthusiasm and awareness about a healthy and nutritious diet in project areas. After the intervention, communities started to promote adequate nutrition themselves through varying instruments and meetings.
Fig. 8: Number of food groups consumed

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Baseline May 2014</th>
<th>Endline May 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starchy staples</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Orange vegetables</td>
<td>26%</td>
<td>3%</td>
</tr>
<tr>
<td>Dark green leafy vegetables</td>
<td>42%</td>
<td>15%</td>
</tr>
<tr>
<td>Other vegetables</td>
<td>22%</td>
<td>30%</td>
</tr>
<tr>
<td>Fruits</td>
<td>7%</td>
<td>21%</td>
</tr>
<tr>
<td>Fish and meat</td>
<td>1%</td>
<td>19%</td>
</tr>
<tr>
<td>Eggs</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Beans and peas</td>
<td>15%</td>
<td>3%</td>
</tr>
<tr>
<td>Dairy</td>
<td>30%</td>
<td>21%</td>
</tr>
<tr>
<td>Nuts and seeds</td>
<td>26%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Baseline May 2014: 1% Starchy staples, 26% Orange vegetables, 42% Dark green leafy vegetables, 22% Other vegetables, 7% Fruits, 1% Fish and meat, 6% Eggs, 15% Beans and peas, 30% Dairy, 26% Nuts and seeds.

Endline May 2015: 3% Starchy staples, 3% Orange vegetables, 15% Dark green leafy vegetables, 30% Other vegetables, 21% Fruits, 7% Fish and meat, 7% Eggs, 3% Beans and peas, 21% Dairy, 7% Nuts and seeds.
# 6 Lessons learned

<table>
<thead>
<tr>
<th>GAIN</th>
<th>BWI</th>
<th>Master trainers</th>
<th>Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>› Less is more: use the most efficient channels and the most effective tools to reach the target group.</td>
<td>› Focus the training on essential information needed for behaviour change among farmers.</td>
<td>› Use existing infrastructure to reach farmers.</td>
<td>› The concept of dietary diversity is easily understood by farmers. Every food group can be produced on the farm and processed food is not eaten often.</td>
</tr>
<tr>
<td><strong>Delivery mechanism</strong></td>
<td></td>
<td></td>
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<tr>
<td>› GAIN, as a nutrition expert, is needed to create engagement for nutrition interventions in the agricultural sector. The role of GAIN is to transfer nutrition knowledge and to ‘translate’ nutrition language to make it easily understood in the agricultural sector.</td>
<td>› Using the existing infrastructure means that both trainers and other group members are well-trusted, resulting in a trusted learning environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Success factors</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>› Co-creation (GAIN and BWI) of the Nutrition Tea Project contributed to a successful intervention.</td>
<td>› Commitment and experience of master trainers, who were skilled in both interaction and content.</td>
<td>› Motivation of participants, since their families’ health is one of their core values.</td>
<td></td>
</tr>
<tr>
<td>› Commitment of BWI to this project and their gained insights in the importance of nutrition.</td>
<td></td>
<td>› Community engagement and peer support.</td>
<td></td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>› Evidence for the program impact across different regions and supply chains is still needed.</td>
<td>› There may be differences among master trainers in the level of skill and capacity to deliver the training.</td>
<td>› The intervention does not address income and affordability to enable further dietary improvements.</td>
<td></td>
</tr>
<tr>
<td>› Due to monitoring budget limitations, no control group was included. The results of this evaluation should be interpreted with this in mind.</td>
<td></td>
<td></td>
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<tr>
<td>› A process evaluation can give more insight in the success and limiting factors of the intervention.</td>
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<tr>
<td><strong>Scaling up</strong></td>
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<td></td>
</tr>
<tr>
<td>› Ready for scaling up: experience gained and tools developed.</td>
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</table>
A program can only work if it is cost-effective, adaptable for different areas and value chains, and if it is both scalable and sustainable. In cash crop supply chains worldwide, there is a need to improve nutrition among farmers and there are opportunities for implementing and scaling up a Nutrition Tea Project. GAIN is also committed to evaluating the program’s impact in different contexts as farmers may face different constraints to achieving the desired changes.

National tea sector
Most Indonesian tea (77%) is produced in West Java province. Only 23% is produced in other areas, such as Central Java (7%), East Java (2%) and Sumatra (12%). Indonesia has approximately 100,000 smallholder farmers and together they own almost half of Indonesia’s tea plantations (46%). The government manages 32% of the tea areas and private companies and estates manage 23%. Throughout the tea supply chain in Indonesia, there are many more farmers and workers to be reached and there is a good opportunity for scaling up the Nutrition Tea Project.

Other value chains in Indonesia
Palm oil is the major agricultural export of Indonesia followed by rubber, cocoa beans and coffee. Indonesia is the largest palm oil producer in the world and contributes to half of the global exports of palm oil. Indonesia also accounts for 28% of the world’s natural rubber production which makes it the second largest producer. The country is the second largest producer in the world for cocoa, representing 18% of the world’s production. Indonesia was the fourth largest producer and exporter of coffee in 2014. The cultivation of coffee, rubber and cocoa is dominated by smallholders. Around 80-90% of cocoa and rubber plantations are managed by small-scale farmers and for coffee plantations this is 90%. For palm oil, both smallholders and large companies

“Villagers now know about the benefits of a home garden, therefore they make a home garden without feeling pushed.”

Mrs. Umini (26 years)
participate in the production. Approximately 40-45% of palm oil plantations are managed by smallholders. There is a good potential for implementing the nutrition program in other supply chains in Indonesia and reaching both smallholders and workers in these sectors.

**International tea sector**

The Nutrition Tea Project in Indonesia was the first pilot of a model that aims to expand to a global program, adaptable to different situations and supply chains. The results of the pilot in Indonesia were used to develop two pilots in Tamil Nadu, India, reaching 6,000 farmers in both the tea and gherkin supply chains. The nutrition program has therefore now been implemented in two countries as well as in two different supply chains.

The next step in further developing a global model is in its preparation phase. GAIN has partnered with the IDH and Unilever to scale up the project in the tea supply chain in Tamil Nadu (India), to start a pilot in Assam (India), to adapt the program to East Africa, to start a pilot in Kenya and to support a project in Malawi. The first activities will start in June 2016. GAIN continues to monitor and collect evidence for the nutrition benefits of the model to support further improvements and justify scale up in different contexts.

The advantages of extending the nutrition program within the tea sector are that climate conditions and the availability of water are relatively similar across the sector, as these factors may influence access to diverse foods and allow households to benefit from the program. All cash crop value chains benefit from the fact that their existing training infrastructures, experienced trainers and trusted learning environment can be used to teach better nutrition practices. Furthermore, farmers’ existing familiarity with a variety of crops and how to cultivate them ensures that the lessons are easily understood.
In cash crop value chains worldwide, the farmers that feed the world suffer from an inadequate diet themselves. Farmers’ diets are often monotonous resulting in hidden hunger. Improving this diet can contribute to a healthy and productive workforce, sustainable supply chains and brand integrity. In Indonesia, the first pilot of the nutrition program succeeded in promoting a diverse and nutritious diet among tea farmer families. The farmers’ dietary diversity increased significantly and in this way, their diet contains more micronutrients, which is related to both health and productivity.

The success of this intervention is in its simplicity. Farmers are familiar with the cultivation of crops and know about the different types of foods. Therefore, the concept of a diverse diet is easily understood and farmers are able to start their own home garden. It is advised to keep it simple: the training should be focused on the essential topics to stimulate behaviour change and only the most effective tools and most efficient training channels should be used. This way, the most important information reaches the farming families in the most efficient way. The combination of creating awareness and reinforcing positive behaviour increases the chance of sustainable behaviour change. Furthermore, it is advised to involve the government and make use of the existing agricultural and health infrastructure, not only to increase efficiency, but also to increase the potential to scale up.

Both Indonesia and the international tea sector offer opportunities for further refining and scaling up this nutrition program. There may be opportunities to adapt the program to the palm oil, rubber, cocoa and coffee value chains, whilst extending the program to tea value chains in other locations. Both smallholders and workers in these value chains can benefit from such a program, since the problems of inadequate nutrition among farming families are, unfortunately, not limited to the Indonesian tea supply chain. Further implementation and scaling up of the nutrition program can contribute to brand integrity and sustainable supply chains with healthy farmers and workers.

Conclusions

The success of this intervention is in its simplicity.
Footnotes


Business Watch Indonesia (BWI)
BWI is one of the leading Indonesian NGOs that advocate sustainable business practices. Established in 2002, BWI has a mission to democratize business practices towards a sustainable development in Indonesia. BWI had worked in agribusiness program involving a wide range of stakeholder like international, national and local agencies, farmers organizations, government, media and civil society organizations. In the tea sector, BWI and GAIN are partnered to improve livelihood and economic welfare of 32,000 tea farmers and families by improving productivity, awareness on the importance of food quality nutrients and accessibility.

Further information on Business Watch Indonesia can be found at www.fairbiz.org or contact us at bwi@watchbusiness.org

Global Alliance for Improved Nutrition (GAIN)
Driven by a vision of a world without malnutrition, GAIN was created in 2002 at a Special Session of the U.N. General Assembly on Children. GAIN supports public-private partnerships to increase access to the missing nutrients in diets necessary for people, communities and economies to be stronger and healthier. With a current daily reach of over 811 million people in more than 30 countries, GAIN’s goal is to improve the lives of one billion people by 2015 within the most vulnerable populations around the world through access to sustainable nutrition solutions.

Please visit us at www.gainhealth.org, follow us on Twitter @GAINalliance and like us on Facebook at www.facebook.com/GAINalliance.

Colophon
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