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STRENGTHENING THE FOUNDATIONS FOR INCLUSIVE ECONOMIC GROWTH

Nepal Economic, Agriculture, and Trade
(NEAT) Activity: Final Report



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Nepal Economic, Agriculture, and Trade (NEAT) Activity: Final Report

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LEFT: Shyam Kumar Shrestha is from a traditional farming family in Sindulpalchowk, central Nepal. He produces and sells agricultural products at the local market.

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INSIDE FRONT COVER: High-quality tea from the Kanchanjangha Tea Estate factory is packed into triangular tea bags, which allow the tea to retain its quality. Acquisition of the packing machine, the first of its kind in Nepal, was supported by NEAT.

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FRONT COVER: Ram Kumari Tharu collects her earnings from selling vegetables at this collection and marketing center in Bardiya, western Nepal, one of 111 such centers strengthened by NEAT.

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BACK COVER: NEAT partner Kabilvastu Integrated Development Services introduced local farmers to good agricultural practices and established a weekly market for farmers to sell their vegetables, significantly increasing farmer incomes.

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Juna Puri, a 30-year-old cabbage farmer in Madan Pokhara, has belonged to the local farmers' cooperative since it began. Juna manages the family's farming business. NEAT training in good agricultural practices for vegetables has helped farmers like Juna increase their productivity and incomes.

EXECUTIVE SUMMARY

Nepal's decade-long civil war, which ended in a peace process and abolition of the country's monarchy in 2006, left numerous political and social tensions: fragmented, underdeveloped industries; a large segment of the population living below the poverty line; and a government grappling with transitioning to a modern, democratic federal system.

The United States Agency for International Development (USAID) launched the comprehensive Nepal Economic, Agriculture, and Trade (NEAT) Activity in December 2010 to strengthen the foundations for rapid, sustained, and inclusive economic growth that would lessen the pressures that could lead to conflict, reduce poverty, improve livelihoods, and generate revenue. The project also aimed to address deficiencies in the legal framework for

businesses and strengthen the platform for trade, with the idea that empowered and efficient economic enterprises and industries drive competitiveness and economic growth.

An ambitious, multifaceted project with a \$22.5-million budget and a 2-1/2-year lifespan, NEAT aimed to build capacities within Nepal's number one industry — agriculture — to reduce poverty and food insecurity, facilitate important regulatory and administrative reforms to increase revenue generation and trade, improve access to finance, and attract investment.

This report illustrates how NEAT helped advance policies to unleash economic growth; strengthened value chains and market access to increase competitiveness; improved livelihoods and increased the resilience of households and

communities; and transformed the rural economy by increasing access to finance. The project's four components worked together to catalyze economic growth, create socially inclusive opportunities, reduce poverty and food insecurity, and improve lives.

NEAT's assistance enabled farmers and agricultural firms to experience growth they never knew was possible. In total, NEAT assisted four value chains, 20 private firms, and 66,780 farmers, increasing farmer incomes by 718 percent and sales by \$26.5 million, with another \$10 million in incremental farmer sales projected for the summer of 2013. In addition, more than 19,000 rural customers now have access to financial services through either new bank branches or branchless banking, and more than \$2.3 million in rural loans have been disbursed. In only 2 1/2 years, NEAT analyzed 40 policy or administrative reforms. Of these, nine are being implemented and the remaining actionable reforms are pending approval. Among the reforms NEAT supported, 11 are revenue-generating initiatives, nine are World Trade Organization (WTO) accession activities, and seven are initiatives to increase agriculture competitiveness.

Implemented by Chemonics with partners Fintrac, CEAPRED, METCON, Making Cents, Kaizen, WOCAN, Land O' Lakes, and invaluable Nepalese partners, NEAT built the capacity of more than 40 local organizations, including financial service institutions, business service providers, and

private firms, to implement key activities throughout Nepal.

Each component focused on one of four intermediate results: (i) strengthening economic policies through reforms that increase revenue generation, build public and private sector capacity, support WTO compliance, improve agricultural competitiveness, or increase trade and investment; (ii) increasing competitiveness in the lentil, tea, ginger, and vegetable crop sectors by improving production and quality, facilitating linkages between buyers and markets, and improving business and marketing skills; (iii) enhancing food security by linking subsistence farmers to formal value chains, increasing their productivity and access to improved inputs, and promoting diversification into vegetable crops to increase incomes; and (iv) increasing access to formal financial services for rural clients lacking bank accounts and building the capacity of financial institutions to design and pilot new products.

NEAT ACTIVITY: KEY ACCOMPLISHMENTS

\$26.5M

Technical and material assistance to farming households and communities resulted in a \$26.5 million increase in sales, including \$14.7 million in vegetable sales alone.

\$2.39M

Assistance to microfinance institutions (MFIs) resulted in \$2.39 million in new microloans to rural clients.

560,000

Initiatives to improve agricultural inputs, production, and post-harvest handling practices, create market linkages, and provide access to bank accounts and loans benefited 560,000 people.

3,000

Partner Annapurna Organic Agriculture Industries entered into contract arrangements with more than 3,000 ginger farmers, most of them supported by NEAT productivity training.

1,204

NEAT introduced 1,204 small-scale irrigation schemes in 14 food security districts, newly irrigating more than 2,500 hectares.

718%

Under the food security component, farmers who received productivity training and were linked to markets increased their incomes by 718 percent on average.

67%

More than two-thirds of farmers assisted under the food security component were linked to markets by NEAT.

60

Public-private dialogues are critical for effective policy reform. NEAT helped business associations facilitate 60 public-private policy dialogue events that engaged government officials, private sector representatives, academics, and development partners.

40

In only 2 1/2 years, NEAT analyzed 40 policy or administrative reforms, nine of which are being implemented, and the remaining actionable reforms are pending approval.

263,000

More than 263,000 training posters and handouts were distributed to district agricultural development officers, extension service centers, and training centers that previously had none.

17,030

NEAT partnered with FORWARD to build the capacity of 17,030 lentil-growing households in good agricultural practices (GAP) and facilitate market access. As a result, household yield increased by more than 50 percent, and sales by more than 100 percent.

14,913

Better technology and higher quality agricultural inputs brought 14,913 hectares under improved management.

300

NEAT assistance resulted in 300 mobile money agents becoming operational.

208%

Farmers assisted under the food security component increased the area under vegetable cultivation by 208 percent.

111

NEAT provided infrastructure, built management capacity, and facilitated market linkages for 111 tea, lentil, ginger, and vegetable collection centers.

20

Material and technical assistance to 20 processing firms in the lentil, tea, and ginger value chains increased their production and export capacity.

19%

Nearly one-fifth of the farmers assisted under the food security component leased additional land to cultivate commercial crops.

1

NEAT support resulted in Nepal's first commercial production of hybrid seed.



Agricultural mechanization has a profound impact on productivity. NEAT supported drafting of a new mechanization policy that will enable farmers like Netra Prasad Budathoki to invest in modern farming technologies and increase their incomes.

ADVANCING POLICIES TO UNLEASH ECONOMIC GROWTH

BUILDING CAPACITY TO IMPROVE THE BUSINESS ENABLING ENVIRONMENT

NEAT strengthened public and private sector institutions to initiate and advance reforms that enhance the business enabling environment and promote national and foreign investment. In addition to disseminating information to investors, building the capacity of public sector partners to negotiate trade agreements, and opening up dialogue between public and private sector players, NEAT supported a number of policy reforms to promote trade and investment, as further detailed in the section “Enhancing Trade and Investment and Fulfilling WTO Commitments” on page 18.

CONTEXT AND CHALLENGES

At NEAT’s inception, Nepal

suffered from weak institutions, entrenched interests, and an unstable political environment. The country ranked near the bottom on virtually every global business environment index. WTO accession in 2003 represented significant progress toward trade liberalization; however, the country was unable to fulfill its WTO reform requirements due to political turmoil and uncertainty. In addition, foreign investment was declining and the trade deficit was rising due to stagnating exports and ballooning imports. An additional concern was the need for new revenue to finance key government functions and critical investments in health, education, and the economy.

APPROACH

NEAT’s approach was to focus on key intervention areas: revenue generation; capacity building of public sector line ministries and departments and

private sector advocacy organizations; agricultural competitiveness; and trade and investment, including WTO compliance. The project worked directly with the Nepalese government through a demand-driven approach to assistance while actively engaging private businesses and associations by facilitating public-private dialogue to influence the new economic framework. Dialogue events included government officials, private sector representatives, policymakers, academics, and development partners, ensuring they reflected a pro-business agenda to fuel economic growth, generate revenue for the government, combat poverty, and propel Nepal forward to meet its development goals. NEAT relied on a combination of local and international experts to provide global perspectives, build capacity for reviewing policies and regulations and drafting new ones, and assist with analyzing international trade agreements.

KEY ACTIVITIES AND RESULTS

NEAT analyzed 40 policy or administrative reforms, of which nine are being implemented. These 40 reforms included 11 revenue-generating initiatives and nine WTO accession activities. NEAT also supported 60 dialogue events with 2,700 participants.

GENERATING REVENUE

Streamlined tax collection. In the past, large businesses outside of Kathmandu sent employees to the capital up to 15 times a year to pay taxes to the Inland Revenue Department (IRD). This was time-consuming and expensive, as businesses had to pay travel costs. After consulting with financial institutions, NEAT conducted a study on opportunities for improving the tax payment system through interbanking, intrabanking, and Internet payments. The study identified the legal, technological, and procedural changes required to implement the Any Branch Banking System (ABBS) for tax payments. As a result of the study, as well as efforts undertaken by government counterparts, the Ministry of Finance authorized the use of ABBS for tax payments by large taxpayers.

The system, launched in July 2012, allows large taxpayers to pay their monthly taxes at any branch of Rastriya Banija Bank or Everest Bank. The new system makes it easier — especially for businesses located outside of Kathmandu — to pay taxes on time. The system was so well received that the IRD and the Ministry of Finance plan to roll



EASIER TO DO BUSINESS, COLLECT TAXES

“In the Office of Company Registration, we have arranged for previously registered companies to show up in our system. Additionally, all new registrations will automatically be reflected in the IT system. This is a way to bring them all under the tax system, as well as to simplify doing business for them.”

— Tanka Mani Sharma,
director general, Inland Revenue Department



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Large companies like Bheri Gas Udhyog account for 75 percent of Nepal's tax revenue. A new tax payment system supported by NEAT has reduced the time it takes to pay taxes from days to hours.

“ This not only motivates us toward our work, but it is also very encouraging that the government is actually concerned and will address our problems. ”

**LAL BDR CHETTRI,
ACCOUNTANT,
BHERI GAS UDHYOG**

SNAPSHOT

New System Eases Burden on Taxpayers

Paying taxes in Nepal used to be a time-consuming and costly process, as accountant Lal Bdr Chettri knows very well. His employer, gas company Bheri Gas Udhyog, used to send him or a trusted representative of the company from Nepalgunj to Kathmandu every month to submit forms and pay taxes. He often had to stay two or three days until the transaction was complete, and if there were any errors in the form, he had to travel back to Nepalgunj to have them fixed. Interest was charged if a monthly payment was late.

Besides being a hassle for the taxpayer, this system was costly for the government, which needs a reliable and efficient cash flow to invest in public services. The government is also keen to improve its score on the World Bank's Doing Business index. A key indicator is the number of hours it takes to pay taxes.

Working with the Ministry of Finance, the NEAT team helped to establish a tax payment system through the Any Branch Banking System (ABBS), which allows large taxpayers like Bheri Gas — which contribute 75 percent of the country's tax revenue — to pay their monthly taxes at any branch of Rastriya Banija Bank or Everest Bank.

The new system saves time and money for taxpayers because it is easier to pay taxes, and it ensures more timely payments of taxes to the government by businesses. Now Lal Bdr Chettri travels to the capital just once a year to collect the vouchers that are submitted with tax payments, and instead of taking days to make a tax payment, it takes only an hour or two for him to go to his local bank branch.

The initiative has been so successful that the Internal Revenue Department is planning to roll out ABBS to all taxpayers in Nepal.

it out to all taxpayers. Expanding ABBS to the public will increase compliance and create additional revenue while reducing the administrative burden of paying taxes.

Faster revenue collection. When new companies registered their businesses with the Office of Company Registrar (OCR) in the past, many waited as long as a year to apply for their tax identification number, or PAN, which officially enters a business into the tax revenue system. Others never applied for or received a PAN and therefore never paid taxes.

NEAT designed and installed a data link between the IRD and the OCR that enabled the OCR to issue a PAN number at the time of company registration and made it possible for the IRD to search the OCR database for noncompliant companies and taxpayers. Using this data link as a model, the IRD director general plans to initiate similar data links with other government agencies. NEAT supported a feasibility study on linking the IRD with the Land Registration Office, Metropolitan Offices, Nepal Rastriya Bank (NRB), and the Transport Management Department.

New guidelines for active tax cases. As the economy develops and business structures and transactions grow in complexity, it is vitally important that the tax code and enforcement procedures advance apace. To update and streamline the IRD's tax guidelines and to increase revenue by applying taxation consistently, Project tax advisers and inter-

national specialists helped draft guidelines in four specialized areas: (i) double taxation agreements, the imposition of taxes on the same income in more than one tax jurisdiction; (ii) permanent establishments, the imposition of taxes only when an enterprise maintains a permanent establishment in the country; (iii) transfer pricing, a profit allocation method used to attribute a corporation's net profit or loss before tax; and (iv) long-term contracts taxation — contracts for the construction, installation, building, or manufacturing of property where work begins in one tax year and is completed in a later year — to determine when and how much tax should be paid during the contract period.

NEAT submitted all four guidelines to the IRD, where they were translated into Nepali. Nepal is currently using NEAT's double taxation agreement guidelines to negotiate double taxation agreements at the regional level. The long-term contract guidelines are awaiting implementation, and guidelines for permanent establishment and transfer pricing are expected to be implemented in fiscal year 2013/14 (Nepal 2070/71).

Streamlined customs clearance. Nepal's Customs Department concentrated customs controls entirely at the border at the time of import, often physically inspecting between 20 percent and 40 percent of the goods entering the country. This led to unnecessarily long delays at the border and ineffective and inefficient use of the inspection staff.

NEAT-SUPPORTED POLICY AND ADMINISTRATIVE REFORMS THROUGH JUNE 2013

	Policy reforms, regulations, and administrative procedures	Analyzed	Drafted and presented for public/stakeholder consultation	Presented for legislation/executive consideration	Prepared with U.S.-government assistance passed/approved	Passed, for which implementation has begun
1	ABBS	•	•	•	•	•
2	Customs valuation manual (in accordance with WTO CVA provisions)	•	•	•	•	•
3	New Customs stakeholder communication system and procedures	•	•	•	•	•
4	Formation of Trade Analytical Wing and procedures	•	•	•	•	•
5	Formation of IRD Analytical Wing and procedures	•	•	•	•	•
6	IRD-OCR data link	•	•	•	•	•
7	Seed regulation, with new seed registration procedures	•	•	•	•	•
8	Guidelines for double taxation agreements	•	•	•	•	•
9	Revenue leakage regulations	•	•	•	•	•
10	Guidelines for long-term contracts	•	•	•		
11	Customs risk management — access to confidential information	•	•	•		
12	Customs PCA of exports	•	•	•		
13	Customs agent (joint responsibility of Customs agent and owner)	•	•	•		
14	Seed compensation guidelines	•	•	•		
15	Seed market and trade analysis	•	•	•		
16	Pest risk analysis for five commodities	•	•	•		
17	Competition Promotion and Market Protection Act guidelines	•	•	•		
18	Guidelines for transfer pricing	•	•	•		
19	Guidelines for permanent establishment	•	•	•		
20	Feasibility of four new data links for OCR	•	•	•		
21	Procedures for exporter and importer ID	•	•			
22	Agribusiness Promotion Act	•	•			
23	Industrial Enterprise Act	•	•			
24	Foreign direct investment policy	•	•			
25	Intellectual property policy	•	•			
26	Restructuring Trade Advisory Committee and procedures	•	•			
27	Analysis of fertilizer demand and policy	•	•			
28	Export Import Management Act	•	•			
29	Export Import Management regulation	•	•			
30	Nepal Company Act, as related to microfinance and Credit Information Bureau	•	•			
31	Restructuring Customs Department and procedures	•	•			
32	Agricultural mechanization policy	•	•			
33	Analysis of Customs tariff restructuring	•	•			
34	Analysis of Nepal-China Trade Agreement issues	•	•			
35	Analysis of SATIS agreement	•	•			
36	Analysis of SAFTA	•	•			
37	Analysis of Nepal-India Trade Agreement issues	•	•			
38	SPS national standards	•	•			
39	FITTA	•	•			
40	IER	•	•			

The post-clearance audit (PCA) system, based on WTO Customs Valuation Agreement guidelines, was instituted in 2009 and allows customs staff to authenticate declarations by examining relevant books, records, business systems, and commercial data. Post-clearance audits enable border regulatory authorities to move from a strictly transaction-based control environment to a multilayered, risk-based control approach.

tuting audit-based controls are a prerequisite for Nepal to successfully apply other trade facilitation measures such as WTO valuation rules. The department is now implementing international standard systems for PCA, and annual revenue is increasing.

Tighter controls on revenue collection. The government of Nepal faces challenges in meeting increasing targets for revenue generation while confronting ever more sophisticated tax evasion schemes. The Department of Revenue Investigation (DRI) has been unable to enforce the Revenue Leakage (Investigation and Control) Act of 1995, as it was outdated and incompatible with other relevant regulations. The DRI requested project support to address this constraint and increase awareness among stakeholders. A technical legal expert helped draft new revenue leakage investigation and control regulations to accompany the act passed 17 years ago. The new regulations were passed in May 2013 and the Department of Customs has already noticed a difference.



REVENUE: GOING UP!

"It is difficult to quantify how much revenue has been generated exactly, but USAID NEAT's support has certainly had a positive impact on revenue generation."

— Shyam Dahal,
director, Customs Reform and Modernization,
Department of Customs

NEAT's international customs expert proposed improvements in regulatory provisions and reporting procedures of post-clearance audits based on international best practices. Subsequently, the team developed and conducted a training course for 28 customs officials and 23 PCA auditors in Kathmandu. In addition, NEAT partnered with the Customs Department to conduct a two-week training course in Kathmandu for PCA auditors to enhance their understanding of how business financial accounting records are constructed and how they relate to valuation declarations. Insti-

BUILDING PRIVATE AND PUBLIC SECTOR CAPACITY

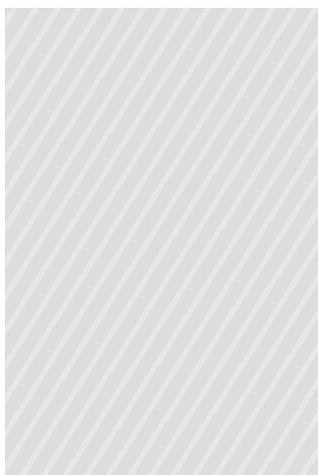
Building the capacity of NEAT's private and public sector partners is integral to NEAT's approach for reforming the policy and business enabling environment. NEAT provided the resources to enable reforms, including expert advice and research opportunities, and positioned our partners as leaders of the reform process. In addition to the capacity build-

LOCAL PARTNER HIGHLIGHT:



FNCCI

The Federation of Nepalese Chambers of Commerce and Industry (FNCCI) is an association of business organizations that promotes economic development in Nepal through private sector-led initiatives. NEAT increased private sector engagement in policy change by building the organization's capacity to facilitate public-private dialogue with a wide range of stakeholders, including government officials, private sector representatives, policymakers, academics, diplomats, and donor agencies, around key issues that affect the private sector. Over the NEAT implementation period, FNCCI organized and facilitated 26 dialogue events.



ing activities described in this section, NEAT strengthened public and private sector partners to improve agricultural policies, undertake reform in the trade and investment regimes, and increase revenue generation, as described elsewhere in this chapter.

The Business Confidence Survey. Private sector confidence in the business and investment climate is a critical and telling indicator that can be used as a tool for reform. All over the world, business confidence surveys are used to measure the private sector's perception of the overall economy and the business and investment climate. Through a grant and technical assistance, NEAT supported development of a survey methodology and tool by the FNCCI.

The first survey, conducted from June to August of 2012, revealed that only 17 percent of respondents believed that overall economic conditions would improve, while more than 50 percent of respondents thought it would deteriorate in the six months following the survey (the remaining respondents believed that things would remain the same). Nearly 50 percent ranked "political instability" as the most critical economic challenge for Nepal, followed by energy crises and strikes. Service sector respondents showed more confidence than their agricultural sector counterparts. The results were published in Nepal's first *Business Confidence Survey Report*.

To further enhance the institutional capacity of FNCCI to measure the confidence level of the private sector, NEAT provided a

grant to support a second survey and publication of another issue of the *Business Confidence Survey Report*. Conducted in March to May of 2012, the second survey results indicated that 39 percent of respondents believed that economic conditions would improve, while only 31 percent thought conditions would deteriorate. These responses demonstrated a trend toward increased confidence among the business community.

The survey, which will be repeated semiannually, has become an invaluable tool for members of the business community, policymakers, and investors to gauge the direction of the economy. The results are published and distributed to public and private sector stakeholders, and the government has pledged to use the survey to inform policy decisions and to gauge whether the business sector's needs and concerns are being addressed. FNCCI plans to continue implementing these surveys with its own funding.

Information portal for foreign investors. In the past, foreigners seeking to do business in Nepal had to hire a lawyer to find out about the visa process and the laws, acts, and procedures governing investment. Information was often difficult to obtain, and interested investors had to pay for information piece by piece through various departments.

The Confederation of Nepalese Industries (CNI) expressed interest in establishing a web portal that would provide potential investors with relevant information. NEAT launched a feasibility study during the first year of

the project, taking into account a similar successful web portal model in India. The study paved the way for the project to assist the CNI in designing the operational structure of the portal. Through a cost-share agreement, NEAT also provided initial support in the form of staff training and website development. CNI developed, designed, and launched the web portal in partnership with the Ministry of Industry in October 2012. As part of the rollout, NEAT provided five days of training on website operation and maintenance. The CNI-Ministry of Industry partnership now maintains and updates the site independently. To date, the portal has had 12,217 visits from 43 different countries.

Enhanced capacity in trade negotiations. Nepal's WTO accession in 2003 called for profound changes to the trade sector, including undertaking major regulatory reforms. Years of political instability and conflict had led to an environment of low export growth and a steadily rising trade deficit. The project responded to a request from the Ministry of Commerce and Supplies to help the government meet the goals of the Nepal Trade Integration Strategy (NTIS), which recommended strengthening government capacity for trade negotiations as a top objective. The strategy also called for increasing the capacity of Nepalese negotiators to address trade barriers, as well as regulatory and business environment issues affecting exports.

To build government capacity, NEAT engaged an international trade expert and Nepalese firm

South Asia Watch on Trade Economics and Environment (SAWTEE) to develop two training packages: a basic course on international trading systems and a course on trade data analysis. These programs now serve as the foundation for trade-related training for government officials. A total of 65 government officials and representatives of trade institutions participated in training-of-trainer sessions on the international trading system and how to build trade research and analytical capacity. Twelve senior officials are now qualified to lead future training programs.

In addition, NEAT engaged Alicia Greenidge, a former trade negotiator at the Office of the United States Trade Representative (USTR), to design and conduct a three-day advanced course on international trade negotiations for 35 Ministry of Commerce and Supplies officials and other government representatives. The course covered the trade, transit, and investment aspects of bilateral agreements, regional agreements, and the WTO. Ms. Greenidge designed several interactive trade negotiation simulations to familiarize the participants with practical issues. One simulation involved an initial negotiation with a developed country representative on preferential market access for niche products from Nepal. Another involved a mock regional market access negotiation. One of the participants, Bhim Prasad Adhikary, director of the Department of Customs, reported that when he attended a high-level meeting with an Indian trade delegation in May 2013, the techniques he had learned made

it easier for him to understand his counterparts' psychology and negotiation strategies, enabling him to better position Nepal on tariffs, valuation, unauthorized trade, and other issues.

Support for trade policy analysis. The Ministry of Commerce and Supplies created a Trade Policy Analytical Wing (TPAW) to provide analytical information and input to trade negotiating teams, trade policy teams, and government officials. NEAT provided technical assistance and material support to operationalize this unit. TPAW now provides key input to upcoming trade negotiations.



DRIVING A BETTER BARGAIN

“The Advanced Training Course on Trade Negotiating Techniques, organized jointly by the Ministry of Commerce and Supplies and the USAID/NEAT Activity, proved very practical, and the techniques we have learned will be instrumental in enhancing our negotiation skills. I took part earlier in several negotiations in my career, including my four-year service as a minister counselor in the Permanent Mission of Nepal to the United Nations in New York. Had I the opportunity to join such a practical training program earlier, I would have been more effective in those negotiations.”

— Amrit Bahadur Rai,
undersecretary, Multilateral Economic Affairs,
Ministry of Foreign Affairs

Support for research and revenue forecasting. To more accurately analyze tax issues and generate revenue forecasts for various taxes, the IRD established a Research and Revenue Forecast-

ing Unit under the Investigation and Development Section. Project experts helped the IRD develop and install appropriate software packages for revenue analysis and forecasting. In addition, NEAT supported training on revenue forecasting for 34 IRD staff and provided funding and support for two IRD officials to receive revenue analysis training in the United States. The trained officers used their knowledge in analyzing and forecasting government revenues from different sources to support the government's budget preparation for fiscal year 2013/14.

SUPPORTING POLICY FOR NEPAL'S TOP SECTOR: AGRICULTURE

A legal framework for contract farming. Although some contract farming exists in Nepal, producers and buyers frequently breach contracts, which have few legal mechanisms to uphold their provisions. As a result, export-oriented production has suffered due to failures in meeting quality and quantity commitments. To address this, NEAT engaged a technical expert to draft the Agribusiness Promotion Act, aimed at creating a legal framework for contract farming and promoting commercial agriculture. Two public-private dialogue events were organized to gather feedback on key issues related to commercial farming. The project also supported a study tour to India by business and public sector representatives to review contract farming legislation and see the realities of contract farming for farmers and agribusiness.



A contract between Annapurna Organic Agriculture Industries and a ginger farmer, one of 3,000 signed between the company and farmers in western Nepal. NEAT supported the Agribusiness Promotion Act, which creates a legal framework for contract farming and commercial agriculture.

The Agribusiness Promotion Act was forwarded to Ministry of Agricultural Development for its consideration in January 2013. The ministry then initiated a formal consultation process with relevant line ministries. Once that is completed, the act will come before the Cabinet for approval.

Regulation to streamline seed importation. Seed policy, acts, and regulations are critical for enhancing the industries that can supply high-quality seed to increase crop quantity and quality. In 2008, the government amended the Seed Act, which governs seed distribution and trade, to comply with WTO requirements and other international practices. To enforce the act, the National Seed Board drafted an accompanying regulation and submitted it to the

Ministry of Agricultural Development for final approval in 2011.

However, the draft seed regulation did not fully address the issues of seed registration and compensation for damage caused by the sale of unregistered seeds. As a result, the Seed Entrepreneurs' Association of Nepal (SEAN) suggested revising the draft to attract private sector investment in hybrid seed development and high-quality seed supply. NEAT provided technical and financial support for a review of procedures and guidelines by SEAN and the Ministry of Agricultural Development's Seed Quality Control Center. The project also supported a series of discussions with government officials and SEAN members.

The revised seed registration procedures were incorporated into the seed regulation, which was approved by Cabinet in January 2013. The seed compensation guidelines are to be implemented outside of the regulation and are expected to be approved by the Ministry of Agricultural Development by August 2013.

Agricultural mechanization policy.

In the past, many in the agricultural community were worried that mechanization would reduce the number of jobs available for young people. In recent years, young people have been migrating abroad to find jobs at an astonishing pace. Many who remain feel that agricultural work is undesirable. These factors have contributed to a labor shortage on farms, especially during planting and harvesting, at a time when the country is trying to increase production.

To address this challenge, the Ministry of Agricultural Development sought project support to prepare an agriculture mechanization policy, with the goal of supporting private sector investment in agricultural mechanization. NEAT provided much of its support for this activity through the Agriculture Enterprise Center, the agricultural wing of FNCCI. The center helped draft and finalize the policy and held two key public-private dialogue events for more than 130 participants. In addition, NEAT organized a study tour to Bangladesh to observe the results of a mechanization policy that has had a profound impact on production. The final draft was submitted to the ministry in May 2013, and

the ministry is incorporating feedback. The ministry considers mechanization a policy priority and intends to forward a final draft to the Cabinet.

Sanitary and phytosanitary (SPS) norms and standards. In recent years, global demand for products and processes that meet international standards has increased. To make international markets accessible to the country's farmers and producers, Nepal must define minimum standards for products and processes. In addition, as a signatory of the WTO Sanitary and Phytosanitary Agreement, Nepal must harmonize its SPS standards with those of other WTO countries. NEAT partnered with DEPROSC, a Kathmandu-based nongovernmental organization (NGO) committed to social development and livelihood improvement, and supplemented their knowledge with two international SPS experts to prepare 16 national standards on phytosanitary measures. The standards have been endorsed by the SPS Implementation Committee and are pending final approval from the National Plant Quarantining Program. The new standards will facilitate trade in agricultural products.

ENHANCING TRADE AND INVESTMENT AND FULFILLING WTO COMMITMENTS

As discussed previously in the section "Building Capacity to Improve the Business Enabling Environment" on page 13, the project strengthened public and private sector institutions to promote national and foreign trade and investment. This section

highlights the policy reforms that NEAT supported to enhance the business enabling environment and attract investors.

Streamlined foreign investment.

The draft Industrial Enterprise Act streamlines registration and increases transparency for foreign investors coming into Nepal. The existing act, passed in 1992, is outdated and does not conform to WTO requirements. To align the act with WTO requirements and update it to reflect current private sector realities, NEAT supported five public-private dialogue sessions to solicit input for revision and updating. During these sessions, business leaders voiced concerns about the conditionality of private sector incentives, the heavy burden of bureaucratic procedures, and the need to update the classification of industries. The new draft act, which was submitted and is expected to be reviewed and passed, adds service industries such as information and communication technology (ICT), simplifies the registration procedure, and reduces the processing time for investment. It also establishes funds for promoting industry (e.g., the Venture Capital Fund, Women Entrepreneurs Development Fund, and Small Industry Development Loan Fund), creates institutional mechanisms (oversight committees) to manage these funds, and invests the Ministry of Industry with the legal authority to administer the funds. New industrial enterprise regulations will be required to implement the proposed new Industrial Enterprise Act. With project support, PACE, a local consulting firm, assisted the

Ministry of Industry in drafting new industrial enterprise regulations. The final draft regulations were submitted to the ministry in June 2013. The minister of finance has repeatedly stated that approval of the act is among his highest priorities.

Foreign direct investment policy and related legislation.

Nepal's transition from a monarchy to a modern, democratic federal system has left deficiencies in the policy and legal framework for promoting and regulating business. As a result, the country's foreign investment environment is less competitive than that of many other countries, an issue the Ministry of Finance is seeking to address. To support the ministry's efforts, an international expert and the Institute for Policy Research and Development (IPRAD) were commissioned to review the current foreign direct investment (FDI) environment in Nepal. After its review, IPRAD recommended that all sectors be open to FDI, minimum equity provisions be reconsidered, and additional investment protection be provided to foreign investors. It also recommended that foreign investors be allowed to open service-based companies, such as Internet companies, which was previously prohibited. Based on the findings of this report, which was presented to Ministry of Industry and other stakeholders, NEAT extended technical and logistical support to the ministry through IPRAD to draft a new FDI policy. FNCCI also cooperated by organizing two public-private dialogue events. The Ministry of Industry organized a

separate mass consultative meeting in May 2013 to review the final draft of the policy.

In March 2013, IPRAD was subcontracted by NEAT to draft the Foreign Investment and Technology Transfer Act (FITTA) to replace the 1992 act, another legal reform to make Nepal a more attractive destination for foreign investment. The draft act, discussed at five public-private dialogue sessions throughout Nepal, was finalized in late June 2013.

Intellectual property policy reform.

Until recently, the legal framework around intellectual property law was disjointed. Responsibility for the various elements of intellectual property was scattered throughout different ministries. In addition, the framework did not comply with the WTO's Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement. To formulate a new intellectual property rights (IPR) policy and amend Nepal's IPR legislation to comply with TRIPS, NEAT commissioned PACE to assess the country's IPR regime and, with the input of an international expert, worked with the Ministry of Industry to prepare a new IPR policy. Private sector input was gathered through two public-private dialogue sessions, and a new intellectual property rights policy was drafted that combines the Copyright Act, Trademark Act, and Patent Act and adds geographic indications. The ministry finalized the IPR policy draft, which is to be forwarded to the Cabinet for approval.

Promoting competition. Price-fixing and cartel issues are significant constraints to fostering a competitive environment in Nepal. The Competition Promotion and Market Protection Act, passed in 2007, adequately addresses many of these issues, and while related regulations exist, there were no practical guidelines for enforcement, so the law was not widely understood or implemented. To promote and increase investment and trade, and as part of Nepal's accession to the WTO, NEAT prepared draft guidelines for implementation of the act, working in close collaboration with the implementing authority, the Department of Commerce and Supply Management. The South Asia Watch on Trade, Economics, and Environment (SAWTEE) completed the draft guidelines and organized a series of interdepartmental technical discussions to solicit proposed modifications. Based on comments and suggestions from enforcement officials, SAWTEE finalized the draft guidelines and submitted them in March 2013 to the Department of Commerce for adoption.

Export/import management. To make trade policy more effective and to incorporate service industries, NEAT partnered with the Ministry of Commerce and Supplies to draft a new Export Import Management Act to replace the existing, outdated act of 1957. In four public-private dialogue sessions, a dedicated committee of ministry staff worked to validate proposed revisions proposed by

project experts. A final draft bill has been reviewed and is ready for submission to Parliament. The new bill emphasizes trade promotion and development rather than trade control and will bring Nepal into compliance with WTO requirements.



NOW YOU'RE SPEAKING MY LANGUAGE!

“One of the major areas that we got support from the NEAT project is the translation of the explanatory notes. Actually, this is a big job, because there are 2,700 pages in English. This will help our transit officers go through all the classification opinion. We went on a visit and learned best practices, and this will help us enhance our trade facilitation.”

— Shyam Dahal,
director, Customs Reform and Modernization Section,
Department of Customs

Customs valuation. Customs officers often used reference tables with the highest values available to determine import value, regardless of quantity or variation. Importers complained that large-volume importations were routinely valued with the same higher unit price as smaller-quantity importations. Such practices directly contradict the WTO Customs Valuation Agreement, which requires adjustments to be made for differences in quantity and trade level. An international expert worked with the Department of Customs to revise valuation procedures. During NEAT

implementation, the vast majority of customs officials were trained on international best practices and the new procedures.

In addition, harmonized system (HS) classification explanatory notes were previously available only in English, making them inaccessible to many and resulting in incorrect coding and tariff application. NEAT organized the translation of five volumes of HS explanatory notes into Nepali. They were printed and presented to the Ministry of Finance on January 26, 2013, World Customs Day. The notes are now being disseminated to all customs offices throughout Nepal. The project partnered with the Department of Customs to deliver training on the correct use of HS valuation for 30 customs officers of the central region and 25 in the far western regions. The explanatory notes and training are expected to improve the accuracy of declarations and increase revenue for the Nepalese government.

Analytical support for regional trade agreements. Nepal increasingly imports more goods than it exports, creating a significant trade deficit, especially with China and India. To understand the reasons and begin to address this issue, NEAT partnered with the Ministry of Commerce and Supplies and SAWTEE to comprehensively assess trade strengths, weakness, and opportunities with the two countries. The reports recommend increasing exports of high-value goods, building special economic zones near borders, and ensuring good infrastructure,

including roads, quarantine facilities, and container yards.

The Nepal-India study recommended incorporating numerous issues into the negotiating agenda, such as increasing the number of quarantine facilities and food testing laboratories at border points or accepting third-party certification; providing reciprocal treatment to Nepalese transporters, permitting their access to Indian territory; and providing exceptions for goods intended for use in the agricultural, manufacturing and service sectors.

The Nepal-China study recommended that negotiations include developing Nepal as a transit link between China and India through infrastructure development; improving payment modalities by working with the Bank of China and Nepal Rastra Bank; drafting a separate agreement to address quarantine and quality assurance for plants, agricultural items, and food items; and addressing piracy and counterfeit trade. These recommendations have been validated by the Nepalese government and private sector and will be considered in upcoming negotiations.

In addition, NEAT partnered with the Ministry of Commerce and Supplies to assess trade prospects through the South Asian Free Trade Area (SAFTA) and the South Asian Association for Regional Cooperation (SAARC) Agreement on Trade in Services (SATIS). The assessment, prepared by SAWTEE in consultation with government and the private sector, recommended that the

negotiating strategy and agenda should include removing Nepal's high-potential export products from other members' lists of sensitive items, harmonizing customs documentation and procedures, and establishing regional transit and transshipment facilities.

These reports form an important basis for the government to develop a strategy and agenda for future negotiations at the SAFTA and SATIS forums.

IMPACT

The full impact of NEAT's support for creating and implementing new policies to improve the business enabling environment and increasing the capacity of government officials to effectively negotiate trade agreements will take years to measure. However, project initiatives have already resulted in deeper engagement through public-private dialogue and strengthened the way the government operates, especially in regard to revenue generation, WTO requirements, and improving the business enabling environment.

LESSON LEARNED

High-level, respected policy staff are critical to achieving results.

NEAT's mandate to work with the government and private sector on activities with broad political support required senior staff members who could gain access to high-level bureaucrats and politicians and enlist their trust. The policy team worked closely with the government and private sector to develop and push forward important initiatives, support

the drafting of new policies and guidelines, and organize public-private dialogue to ensure the success of project activities.

Policy reform should not focus exclusively on high-level policies or laws. NEAT provided assistance to government counterparts to improve administrative procedures, in addition to reforming policies, acts, and regulations. Reforming administrative procedures can have a significant impact on the policy and business environment and government revenue generation. In addition, administrative reforms can often be approved at a level below Parliament or the Cabinet, providing an opportunity for quick wins. For example, the project's work with IRD on ABBS and the data link with OCR were approved at the ministry level and implemented rapidly.

Agricultural reform should incorporate both farmers' and firms' perspectives. Both perspectives were incorporated in the Agribusiness Promotion Act and the agricultural mechanization policy to ensure that they would be grounded in reality. During study tours to India and Bangladesh, government officials and private sector representatives were able to speak to farmers and firms about what legislation would be necessary to successfully implement contract farming and scale up mechanization. Support for public-private dialogue offered the government an opportunity to hear from various private sector constituencies, including association and cooperative members,

agricultural processing firms, and farmer group representatives, about particular issues of concern. As a result, proposed agricultural reforms address real constraints and have broad support from different private sector constituencies.

Demand-driven support should drive the agenda. If one were to ask public and private sector partners who led the process of improving a particular policy, act, or procedure, the response would be, "We did." NEAT's demand-driven approach ensured stakeholder ownership, timely implementation, and a commitment to achieving results. NEAT helped develop the process, incorporated significant public-private dialogue, and provided the tools and resources to get the job done, but public and private sector partners drove the process. This is likely to ensure continuity on reforms already enacted or still in process.

Public-private dialogue leads to expedited results. Intensive public-private dialogue motivates government and private sector organizations to reach consensus. Identifying motivating factors and key change agents in advance was critical for moving the processes forward and will continue to be critical in the future.



Radhika B.K. sells ginger to Annapurna Organic through her women's cooperative. She is one of 9,000 ginger farmers who benefited from NEAT assistance.

CHAPTER TWO

STRENGTHENING VALUE CHAINS TO INCREASE COMPETITIVENESS

CONTEXT AND CHALLENGES

Agriculture is the mainstay of Nepal's economy. The sector employs more than 80 percent of the population and accounts for approximately 38 percent of GDP. Despite that, Nepal's agricultural sector is unable to meet domestic and international market demand in terms of both quantity and quality. Constraints include lack of knowledge of improved practices, reluctance to adopt new practices due to perceived risk, lack of access to high-quality inputs, limited access to finance for business investments, and inefficiencies and a lack of business skills along the value chain.

APPROACH

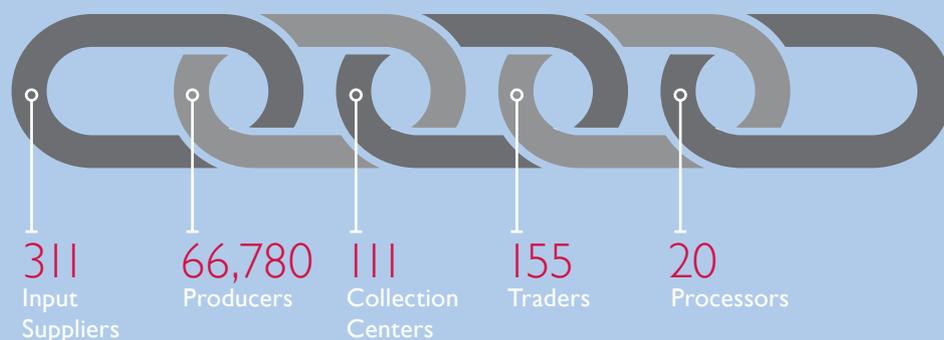
USAID's economic growth strategy asserts that competitiveness is defined by the ability of an enterprise to compete in end markets. To increase competitiveness

in the tea, lentil, ginger, and vegetable value chains, NEAT focused on a push-and-pull approach, working with farmers and enterprise-level producers to push a high-quality product to market, and on the demand side to increase uptake. The project also created linkages between producers and buyers, building the capacity of actors throughout the value chain, training farmers in improved production practices, and supporting the government in addressing agribusiness policy constraints.

KEY ACTIVITIES AND RESULTS

NEAT supported more than 38,400 households to improve production practices, business skills, and market access in the ginger (8,904), lentil (17,030), tea (6,500), and vegetable sectors (5,459). More than 100 collection centers were constructed or upgraded, with staff receiving

NEAT'S VALUE CHAIN PARTNERS



IMPROVED
products for
domestic
and export
markets

training in management or market linkage. Between July 2012 and May 2013, collection center sales increased by \$3.37 million. In addition, 7,227 hectares were under improved technologies or management practices as a result of project assistance; 15,263 farmers were linked to a larger firm rather than selling to village traders; 41,676 farmers received business services such as improved seeds or business skills training from a business service provider strengthened by NEAT; and farmer sales increased by \$10,777,976.

INCREASING COMPETITIVENESS IN TEA

Tea is an emerging product in Nepal. However, most tea from Nepal is sold in bulk to India, where it is processed, packaged, and sold to European markets. NEAT assistance focused on increasing productivity, improving quality, and raising brand visibility.

Collection centers. Many Nepalese tea farmers must travel for hours on foot carrying hand-picked leaves to a pick-up location on a roadside or a storage structure with dirt floors. The extensive travel and inferior storage practices degrade the quality of tea, affecting its price in end markets.

To address this challenge, NEAT partnered with Nepal Small Tea Producers Limited (NESTPROL), Kanchanjangha Tea Estate, Himalayan Shangri-la Tea Producers, Gorkha Tea, and Hariyali Jabik tea factories in Ilam to construct 22 collection centers, each tied to a farmer group in a specific area. The collection center staff, paid from farmer fees, grade the tea by type and quality, weigh it, and spread the leaves out on a clean surface to avoid fermentation while they wait for factory pick-up. NEAT trained collection center staff on how to manage members and fees and strengthen business relationships.



© NEPAL NEAT

Hom Kumari Khatiwada brings tea to the Gogane Tea Producers' Cooperative in Ilam. Her journey to market used to take five hours — now it takes seven minutes.

SNAPSHOT

Collection Centers Link Tea Farmers to Firms

With its high altitudes and favorable soil conditions, Nepal has an excellent climate for growing tea. While many of the teas from Nepal are considered superior in aroma, taste, and color to the better-known teas from neighboring Darjeeling in India, Nepal has been unable to capture a significant share of the global market. Outdated post-harvest technologies and insufficient infrastructure have kept Nepal from commercially producing tea that meets international standards.

To address these constraints, NEAT targeted four tea-growing districts in eastern Nepal for interventions. Partnering with five tea processors — Nepal Small Tea Producers Limited, Himalayan Shangri-La, Hariyalijaibik, Kanchanjanga Tea, and Gorkha Tea — NEAT supported the construction or upgrading of 22 tea collection centers and provided management training.

The collection centers have changed the lives of farmers like 55-year-old Hom Kumari Khatiwada, who has 20 years of experience growing tea in Ilam. Khatiwada used to spend five hours a day traveling to and from the nearest factory to sell her tea leaves. Traveling reduced the time she could spend plucking tea and managing her tea garden. In addition, she would pack as many tea leaves as possible into her sack. This damaged the leaves, sometimes so severely that the factory would reject the entire daily harvest and send her home empty-handed.

NEAT brought processors and farmers together to decide where collection centers should be established to link as many farmers as possible to tea firms. Now Khatiwada travels seven minutes to deliver her tea to the collection center. She spends more time using high-quality plucking methods and delivers better quality tea leaves than before. In 2012, she increased her earnings by 50 percent over the previous year.

The new collection center “has made life a lot easier for us,” says Khatiwada. The centers are owned by the farmer cooperatives, which donated the land and some of the labor for the collection centers. The farmers take pride in maintaining the facilities and overseeing operations.

Besides benefiting the farmers, the new collection centers bring tea processors a steady supply of high-quality tea leaves — one step toward raising quality and increasing exports.



LOCAL
PARTNER
HIGHLIGHT:

NESTPROL

NESTPROL, a small tea manufacturing company with 13 employees, aims to create market opportunities for small tea farmers in Ilam district, the source of 77 percent of Nepal's tea. NESTPROL has grown from 40 shareholder farmers to more than 180. Due to collection centers supported by NEAT, the quality of green leaf available to NESTPROL has increased the retail price by 12 percent.

Today, more than 1,000 farmers come to these collection centers daily with their tea leaves. For many farmers, the collection centers cut the travel distance by more than half, and because the quality of the tea leaf is now much better, farmers typically earn a premium of 15 percent or more. The collection centers have helped not only the farmers, but also the processing firms. Firms are receiving higher-quality tea and increasing profits as a result.

Bagging and drying. Tea from Nepal is often processed in India and sold as “Darjeeling” tea. To increase value addition and attract European buyers willing to pay higher prices, NEAT provided a grant to Shangri-La Agro World (SAW), an agricultural processing and export company, to cost-share the purchase of a pyramid tea bagging machine, the first of its kind in Nepal. Triangular bagging produces premium sachets of tea that fetch a high price in European markets. Marketing training and linkage support helped the company send samples to France, Germany, Qatar, Switzerland, Ukraine, and the United Kingdom. SAW has sold tea to clients in the United States and Japan and continues to look for new markets.

NEAT also provided a grant to install a tea dryer at the organic Kanchanjanjha Tea Estate. The tea dryer, which meets internationally accepted standards for export, stops oxidation at its optimum point and then reduces the moisture content of the tea to 2.5- 3.5 percent, at which point the tea will retain its quality.

Organic certification. Nepalese tea has significant potential to penetrate the U.S. and European markets if the number of organic certified producers increases to meet the growing demand for organic tea. Even to continue to supply India and other non-European markets, farmers will have to manage pesticide use more carefully after banned pesticides were recently detected in Nepalese tea exports. New Indian food safety laws mandate that from January 2014, tea exports must undergo laboratory testing to meet rigorous pesticide standards.

To promote organic tea sales and meet market requirements, NEAT's approach was three-fold: (i) assist farmers who are certified or in the process of obtaining certification to renew or advance their status, (ii) assist farmers who are producing organic but not seeking certification to begin the process, and (iii) provide integrated pest management training to help farmers who are selling non-organic tea manage pesticide use. Through this approach, more farmers began converting to organic farming and obtained organic certification. Farmers supplying partner tea companies were trained in integrated pest management, vermin compost technology, management of cowsheds, and improved pruning and plucking techniques.

The conversion to organic farming can be a lengthy process and requires strong farmer commitment. With support and training from project grantees, 229 tea farmers earned organic certifica-



Farmers bring tea leaves to the Eco Tea Cooperative's NEAT-supported collection center in Kolbung, Ilam.

tion from the National Association for Sustainable Agriculture Australia (NASAA) for the first time. The agency's strict standards include extensive orientation, detailed recordkeeping at the farm level, and an internal control system within each farming group. NEAT also helped more than 1,137 farmers producing organic tea for three factories renew their organic certification. Another 107 farmers are in the conversion process.

Branding and marketing. Building a strong brand around Nepalese tea to catch the attention of potential buyers requires producing consistently high-quality tea. NEAT helped partners improve product quality and build strong domestic and international linkages by marketing a national brand. The approach replaced

outdated marketing efforts and contributed to a push for greater visibility throughout the sector. As a result, farmer tea sales increased by more than \$1.2 million and were expected to increase by another \$800,000 by the end of the 2013 season.

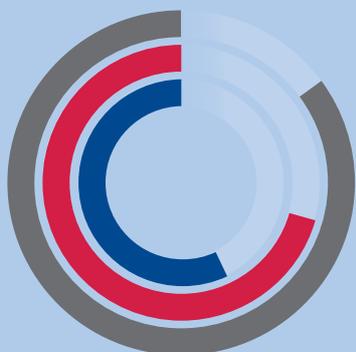
As part of the effort to increase visibility for tea from Nepal, NEAT assisted the Himalayan Orthodox Tea Producers Cooperative (HIMCOOP) with creating promotional materials and organizing a booth at the Tea and Coffee World Cup in Vienna, Austria, in March 2012 and at the World Tea Expo in Las Vegas, Nevada, in 2011, 2012, and 2013. As a result, HIMCOOP tea export sales to all countries except India increased in volume by 20 percent. Halseen and Lyon Tea of Ger-

TEA FARMERS ADOPTING IMPROVED TECHNOLOGIES

85%
PRUNING AND PLUCKING

71%
COMPOST FERTILIZER

57%
DISEASE AND PEST CONTROL



2,244
TOTAL HECTARES UNDER IMPROVED MANAGEMENT

many and U.S. firm the Tao of Tea, which previously purchased small quantities of tea from private Nepalese firms, now plan to purchase tea from HIMCOOP so they can source high volumes, guarantee quality, and purchase a wider variety of Nepalese tea. HIMCOOP is preparing to ship samples to other interested buyers they met during their marketing trips. With support, the Himalayan Orthodox Tea Producers Association-Nepal hosted a visit of the Tea Association of the USA to Nepal in May 2012. The visit brought important potential tea importers from the United States to Nepal, resulting in new sales to the Republic of Tea, one of the most influential U.S. tea buyers.

To address quality, NEAT supported orthodox tea productivity and green leaf quality improvement through training in tea garden management, organic production, safe pesticide use, and improved production practices. The project partnered with cooperatives and processing firms to train more than 6,500 households in best practices for production and harvesting.

BOOSTING LENTIL PRODUCTION AND FACILITATING MARKET LINKAGES

Lentil is Nepal's number one agriculture export, yet the country's 700,000 lentil farmers are smallholders who do not use modern production and post-harvest practices, resulting in low productivity, post-harvest losses that can top 20 percent, and low profitability. When

India placed tighter restrictions on lentil exports, Nepal gained an opportunity to fill the gap by entering new markets and expanding the quantity of lentil exported to existing markets, such as Bangladesh, which recently agreed to provide duty-free access to its market.

To expand productivity and profitability, NEAT partnered with FORWARD Nepal, an NGO dedicated to reducing poverty by improving food security, to build the capacity and knowledge of farmers through training, demonstration plots, and introduction of better varieties and processes. Assistance was provided in three areas: production and value addition, processing, and marketing.

Production and value addition.

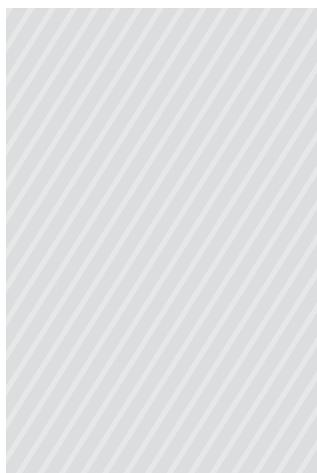
To reach the maximum number of lentil farmers, NEAT identified motivated farmers who could be trained to provide training to neighboring farmers side by side with project field technicians. More than 60 farmer-trainers received five days of training in group management, improved production and processing technologies, marketing, planning, and monitoring and evaluation. Next, the team identified village development committees (VDCs) — small villages within larger districts — where farmers located near large lentil processors, millers, and traders were eager to expand lentil production. In each district, three lentil clusters were selected for commercial block production. Using this strategy, FORWARD built the capacity



LOCAL
PARTNER
HIGHLIGHT:

FORWARD NEPAL

FORWARD Nepal, a non-profit with more than 100 employees, was founded in 1996 by a team of agriculturists, sociologists, economists, social workers, and farmers. It aims to reduce poverty by improving food security and rural household incomes by providing technical assistance in high-value crops, livestock, forestry, micro-infrastructure, social mobilization, market development, and value chains. FORWARD has strong working relationships with different farmer groups, cooperatives, and community organizations in more than 38 districts and was a key partner and grantee for NEAT.



of 17,030 households in good agricultural practices by establishing demonstration plots, increasing access to improved varieties, and grading lentil by sieving. Between 2011 and 2013, lentil yield increased by more than 50 percent and farmer sales by more than \$4.5 million. The share of farmers using improved seed increased from 4.4 percent to 92 percent, and the area under lentil cultivation increased by 25 percent over the baseline.

Processing. To increase exports, the project partnered with Durga Dal Mill to modernize their machinery to include color sorting, which increased export capability from 1,120 metric tons to as much as 3,500 metric tons. FORWARD brought lentil traders and producers together from 11 districts to discuss how to improve quality and took producers to a factory to observe quality checks. Today, 95 percent of farmers supported by FORWARD are grading, sorting, and cleaning their lentil before they sell to the market. Knowing what quality grades get what price ensures transparency, builds trust, and helps farmers increase sales.

Bulking and marketing. Farmers' reluctance to combine their lentil crop with their neighbors' crop left them at the mercy of small traders. NEAT supported the construction of seven bulk collection facilities for lentil, organized 32 cluster-level collective marketing meetings, and facilitated 11 collective marketing initiatives with the participation of more than 300 farmer groups.

As a result, farmer groups are selling in bulk at a premium to processors or traders who are willing to pay a higher price. Approximately 7,300 farmers now sell directly to firms, or to district or regional traders, rather than village traders. In addition to improving market access for lentil producers, NEAT provided current market intelligence on the Bangladesh market and other emerging markets to ANROPI and its members.

SECURING A STEADY GINGER MARKET AND BOOSTING PRODUCTIVITY

Nepal is the third-largest ginger producer in the world after India and China but ranks 11th in earnings from ginger. More than 75,000 Nepalese ginger farmers in the east, west, and midwest regions suffer from low productivity, post-harvest losses, and a disorganized market dominated by mid-level actors. In addition, 80 percent of fresh ginger produced in Nepal is sent unclean and unsorted to market-savvy Indian wholesalers at rock bottom prices.

NEAT analyzed the market and saw significant potential for farmers to improve production and processing and secure higher prices. The project organized ginger assistance into three areas: production, processing and value addition, and market linkages.

Production. Ginger farmers experience low productivity due to poor production technologies and disease. Local partners Multidimensional Agriculture

for Development, Public Progress Social Development Center, and the Forum for People's Awareness worked to improve the production practices of approximately 9,000 farmers in midwestern Nepal by promoting high-quality seed production, improving disease management, introducing new harvesting techniques, and training ginger collectors on quality standards. When partner Annapurna Organic Agriculture Industries (AOAI) needed organic ginger for processing, project partners trained 3,000 ginger farmers on good agricultural practices for growing organic ginger. AOAI trained farmers on how to implement an internal control system for organic certification.

Processing and value addition. Processing and value addition were identified as key areas to promote ginger market growth. Activities in this area included the following:

- Working through three local partners, producers received assistance in drying and processing, packaging in crates to maintain quality, and low-cost storage construction so they would not be forced to sell at the bottom of the market.
- Partner Khaptar Aroma introduced ginger oil production by establishing a washing station, a distillation unit, and a larger storage facility. Production from the first season was sold to buyers in the United States, France, and Switzerland.

- AOAI was initially unable to meet market demand from existing buyers because they didn't have a large enough processing facility. With a grant from NEAT, AOAI established a new ginger processing center in Kapilvastu district, the first of its kind in Nepal. The new facility has a ginger washing station with a 10,000-metric-ton capacity per season, as well as peeling, slicing, and drying facilities. In the first full season of operation, AOAI processed 1,000 metric tons.

Market linkages and contract farming. Through local partners, NEAT facilitated market links at the farmer group level by organizing producer-buyer meetings. To ensure they would meet their market commitments for processed ginger, partner Annapurna entered into contract farming arrangements with more than 3,000 ginger farmers for organic production. This provided farmers with a ready market and earned them a 15 percent premium over the prevailing market price. As a result, Annapurna expanded from 25 to 90 employees, and processing increased from 100 metric tons to 1,000 metric tons in 2013. Sales of the 9,000 project-supported farmers increased by more than \$2,153,000.

ENHANCING VEGETABLE MARKETS

Nepal's vegetable producers are often unaware of the extent of market demand or quality standards. Even traders lack knowledge about pricing systems based



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Kum Singh Chaudhary, a cooperative executive and lentil farmer from Banke, midwestern Nepal, is one of 7,300 NEAT-supported farmers who now sell directly to firms rather than village traders. Grantee FORWARD linked farmers with processors and traders who pay a premium for produce sold in bulk.

SNAPSHOT

Linkage Benefits Lentil Farmers, Exporter

Lentil is Nepal's top agricultural export, yet most lentil farmers are not commercially oriented. Most farm on a small scale and sell individually to local traders. This gives them little ability to negotiate price.

With NEAT support, a local organization called FORWARD provided productivity and market linkage training to more than 17,000 farmers. As a result, more lentil is reaching the market, and farmers are earning a higher price.

FORWARD also facilitated direct linkages between farmers and processor Durga Dal Mill, also supported by NEAT. "The fact that we can send the lentils directly to the factory means that we have a ready market," says Ganga Pun, vice chairman of the Bhuwar Bhawani Agriculture Cooperative in Banke.

The cooperative — about 10 times larger than most, with 250 members — is growing because farmers are impressed with its record of helping members get their lentils to market on time and sell them at a good price. During the 2013 season, the cooperative sent 9.3 metric tons of lentils to Durga and earned a 15 percent premium over the price offered by local traders, even taking transportation costs into account.

Kum Singh Chaudhary, another cooperative executive and a lentil farmer, sold his entire 900-kilogram crop through the cooperative. "Previously, I used to sell small quantities to whoever happened to be interested," he says. Now, farmers call their contact at Durga, find the day's prices, and send the lentils on their way.

For its part, Durga trained the farmers to sort and grade lentils according to market specifications. Now the cooperative owns a machine sieve that does the sorting and grading.

For farmers like Pun and Chaudhary, the farm-factory linkage significantly increased their income, motivating them to invest more in lentil cultivation. For Durga, NEAT support at the factory level and with market linkages helped the company increase its exports dramatically.

CAPACITY BUILDING FOR COLLECTION CENTERS



After only nine months, NEAT-supported collection centers have seen the following results:

93 PERCENT collect market information, an increase from 53 percent before NEAT



60 PERCENT have purchased new equipment, such as scales and crates



73 PERCENT are investing more time in marketing or improved management procedures



20 PERCENT have hired new employees



on sorted, graded, and well-packaged products. Also, vegetable productivity is often low due to a lack of irrigation, limited use of high-quality inputs and services, and insufficient knowledge or use of improved farming practices and technology.

NEAT addressed these issues and increased the competitiveness of more than 20 vegetables, including onion, chili, and tomato (chosen for their high import substitution and export value). Support was provided in three areas: technical assistance and training on good agricultural practices; introduction and expansion of bulk collection, sorting, and grading; and fostering market linkages between producers, traders, processors, and end markets.

Good agricultural practices.

Demand for vegetables is high year-round, especially in urban centers. There is also significant potential for import substitution,

price premiums, and vegetable exports in the off season. NEAT worked with producers linked to the Kathmandu, Butwal, Kohalpur, and Ghorai markets and in collection centers in 20 districts to increase vegetable production with high market potential through five partners: Agribusiness and Trade Promotion Multipurpose Cooperative, Institute for Sustainable Agriculture in Nepal, Kapilvastu Integrated Development Services, Unity Services Cooperation, and Madanpokhara, a vegetable cooperative.

Project partners trained 5,459 households to increase vegetable production and quality through better inputs and improved farming practices. Topics included which seeds to use and how to plant them; correct use of fertilizer, composting, and pesticides; grading and packaging techniques; and business skill training. Vegetable sales by assisted farmers increased by more than \$2,821,000.



© NEPAL NEAT

Annapurna Organic's purchase of mechanized equipment increased the amount of ginger processed from 100 metric tons to 1,000 metric tons per season. Annapurna supplies ginger to markets in four countries and plans to reach eight more within five years.

SNAPSHOT

Contract Farming Boosts Ginger Exports

Nepal is the third largest producer of ginger in the world but ranks 11th in earnings. Outdated production practices, low processing capacity, and unreliable ginger supplies have kept exports far below their potential. Contract farming, which links producers with processors, is one way to improve reliability.

With NEAT support, leading ginger exporter Annapurna Organic Agriculture Industries established the first large-scale ginger processing plant in Nepal. To supply the plant with high-quality ginger, Pharsuram Acharya, head of Annapurna, wanted to increase the amount he purchased from 100 metric tons to 1,000 metric tons. NEAT linked Annapurna with farmers who had received NEAT productivity training, and the first contract agreements between the parties were drafted and signed in 2012.

“Contract farming gives us certainty about the quantity of ginger we will receive,” says Acharya. “We can then plan ahead and make contracts with our own clients in regional and international markets.”

Annapurna used to buy ginger from 169 farmers. Today, the processor has contract agreements with 3,000 farmers in eight districts in western Nepal. The farmers earn a premium for their ginger and have a reliable market.

At Annapurna, sparkling new machines hum as they wash, slice, dry, and package organic ginger. With increased capacity and a more dependable supply, Acharya has big plans. In 2012 he processed 1,000 metric tons, and he plans to increase that tenfold. He currently sells to Germany, Japan, Australia, and South Korea and plans to reach eight new countries — and contract with 22,000 farmers — within five years.

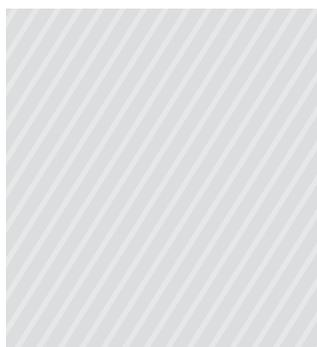
Contract farming is not always so successful. In some cases, a lack of oversight has led to breaches of contract by producers or buyers, as well as failure to meet quality and quantity commitments. To address this issue, NEAT supported preparation of the Agribusiness Promotion Act, which will provide a legal framework for contract farming and commercial agriculture when passed.

LOCAL PARTNER HIGHLIGHT:



MADANPOKHARA

A small nonprofit dedicated to commercial vegetable production, Madanpokhara had 115 members when it began its partnership with NEAT in January 2012. By December 2012, it had 202 members, mostly women. Farmers increased their vegetable production area from 25 hectares to 45 hectares and were able to supply more than 5 metric tons of vegetables daily during the high season. In total, production increased more than 33 percent over the previous year. In addition, NEAT created an automated record-keeping system, trained staff in data entry and analysis, provided computers, and designed an e-database. Now Madanpokhara can now keep electronic records and produce sales reports, review market trends, and project future sales.



Bulk collection, sorting, and grading. A local association partner, the Federation of Fruit and Vegetable Entrepreneurs Nepal (FEFVEN), developed voluntary quality standards for seven vegetables and trained nearly 200 producers in four collection centers in central Nepal. With project support, FEFVEN set up and continues to operate a call system where traders can inquire about the daily price of these vegetables at Kalimati Market from 6 a.m. to 5 p.m. The project constructed 11 vegetable collection centers, upgraded more than 24 centers, and provided collection center management training to staff in 42 centers. These centers ensure proper post-harvest management, provide opportunities for collective marketing, and help link producers and traders. They also save farmers time and labor. “Farmers used to take their produce to market themselves,” said Sarjan Chaudhary, a collection center staff member and farmer. “They would set up in a corner or in some alley and sell it. Now they just grow the vegetables, bring them here to the collection center, and go home.”

Market linkages. All project-supported vegetable producers were successfully linked to collection centers, which in turn were linked to traders. Through these linkages, producers and traders are earning higher incomes, and the quality of their produce has improved. Producers and traders received training in good agricultural practices for summer vegetable production, post-harvest handling, quality standards, or packaging and market linkages.

As a result, the share of farmers using improved post-harvest practices increased from 20 percent to 80 percent, 80 percent of collection centers are linked to new traders or wholesale markets, and 87 percent of collection centers are linked to new farmer groups.

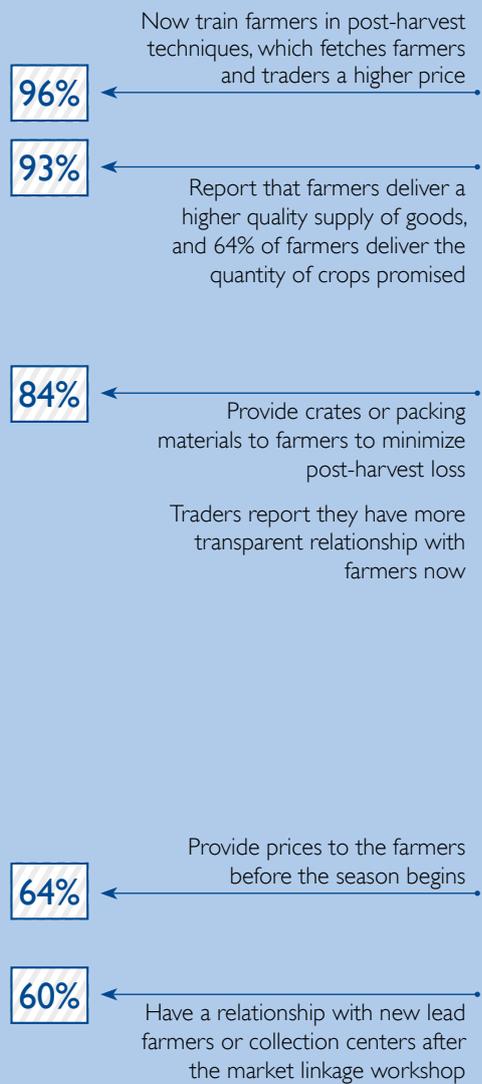
IMPROVING STANDARDS, ACCESS TO MARKETS, AND ENTERPRISE SKILLS

Standards. Lacking knowledge, farmers previously did not distinguish between high-quality and low-quality produce. They simply brought all their produce to market and sold it, usually at low prices. To increase awareness and to bring farmers and traders together to discuss how quality affects pricing, NEAT partnered with three commodity associations — FEFVEN for vegetables, ANROPI for lentils, and the Nepal Ginger Producers and Traders Associations (NGPTA) — to introduce voluntary quality standards for each product. Pictorial posters for ginger, vegetable, cauliflower, cabbage, onion, cowpea, chili, and cucumber depicted different quality grades to harmonize standards across Nepal’s markets. FEFVEN also conducted training to promote vegetable quality standards and sound post-harvest practices.

Adopting voluntary standards is a significant milestone toward promoting quality. Association members have welcomed the standards as a way to reduce losses and increase competitiveness. “In the past, out of 3,000 kilos transported to the market, up to 700 kilos were low-quali-

NEAT STRENGTHENS VALUE CHAIN LINKAGES THROUGH AGRICULTURAL ENTERPRISE TRAINING AND VALUE CHAIN WORKSHOP

TRADERS



INPUT SUPPLIERS



ty,” said Purushottam Bajagain, a farmer and trader. “Money was wasted on transportation costs. Now we’re grading, packing, and sorting here.”

Marketing. Collection centers reduce the time and cost of getting produce to market. Previously, the capacity of most collec-

tion centers in project-assisted districts was low. As supply and demand increased, these centers needed to develop better recordkeeping and management practices to operate successfully. The project provided training in management, market linkage, and post-harvest handling to staff in 111 collection or



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Although he does not own land, Gajendra Raji successfully farms vegetables on land he leased after taking NEAT-supported agricultural and business training.

SNAPSHOT

Landless Youth Dig In for a Better Future

For many young people, the lack of employment opportunities leaves even the most highly educated with no other option than to leave their families and look for work in other countries. Through partnerships with Unity Service Cooperation Nepal, a local not-for-profit organization, and the Human Resource Development Center, a business service provider, NEAT worked with youth to develop home-grown opportunities in agriculture.

Gajendra Rai, a 23-year-old college graduate living near Kathmandu, partnered with a friend to lease a small plot of land and start an organic vegetable farming business. Although he began his enterprise with a limited understanding of vegetable farming, NEAT training in agriculture productivity and business skills gave Gajendra new knowledge and confidence. Based on early success, Gajendra leased more land and purchased organic fertilizer in bulk through his farmers' group at a lower cost than he would have paid at the local market.

Gajendra is now selling his organic vegetables at a high price to supermarkets, Dwarika's Hotel, and Kathmandu University. Demand is so strong he recently started buying organic produce from his neighbors to help fill buyers' orders. Gajendra says he now understands the importance of each link in the value chain — especially the market and the needs of his customers.

As a young man who runs his own business, Gajendra wants to serve as a positive example to other youth who may be considering migration. "No matter where you live," he says, "you need to make a commitment and have a goal. I do not own my own land, but I am farming vegetables on leased land and am quite satisfied with my earnings, which are enough to meet my family's expenses."

market centers in 19 districts. The centers were selected based on operational status, volume of transactions and turnover, ownership, and accessibility. The selected centers collectively work with more than 1,000 producers daily and process more than 41,645 metric tons of produce annually. The goal of the training event was for each center to develop bylaws and a business plan. Topics included business planning, revenue generation, post-harvest handling, marketing, recordkeeping, and policy. A total of 322 staff were trained in the west, midwest, and far western regions. NEAT also arranged for 76 participants to travel to high-performing collection centers elsewhere in Nepal and in India to learn best practices. As a result, more than 3,500 farmers were linked to project-assisted centers. After the training, staff at each center were tasked with creating three-year marketing plans and increasing farmer membership by 25 percent to 35 percent. Today, 67 percent of the centers have marketing plans, up from 13 percent before, and sales increased by \$3.37 million.

Enterprise skills. Historically, Nepalese farmers have engaged in subsistence farming rather than commercial farming, due to both tradition and a lack of business knowledge. Most trading was for household needs, and only the surplus was taken to the market. Few value chain actors knew how to increase production, volume, or profits. To enhance the business skills of producers, input suppliers, and traders and to build trust that

would result in lasting partnerships among them, subcontractor Making Cents developed a customized training package featuring experiential learning in the form of case studies, role-playing, and simulations. Through a local partner, the Human Resource Development Centre (HURDEC), NEAT certified 50 facilitators to train producers, input suppliers, and traders. Using these techniques and materials, known as the Agricultural Enterprise Curriculum (AgEC) toolkit, HURDEC trained 7,247 producers, 311 input suppliers, and 138 traders. Based on participant feedback, HURDEC designed and introduced interactive workshops for value chain actors, resulting in new market linkages between input suppliers, farmers, and traders and improved farmer understanding of market requirements. The project also delivered four training sessions to district agriculture development offices from Kathmandu and Chitwan. The training deepened all actors' understanding of their roles in the value chain and built linkages that improved competitiveness. A survey of producers revealed that 85 percent were keeping business records, up from 25 percent previously, and nearly 90 percent reported having better relationships with traders.

IMPACT

NEAT made systemic changes to increase the competitiveness in the tea, lentil, ginger, and vegetable value chains that improved relationships and changed behaviors and practices of value chain actors. In addition



Pavitra Aryal, a member of the Eco Tea Cooperative, plucks the first flush of organic tea in her farm in Ilam, Eastern Nepal. To help Nepal meet the growing demand for organic tea in the U.S. and European markets, NEAT supported farmers to convert to organic farming and obtain certification.



to increasing farmer and firm sales, new market linkages will have a continuing impact on the competitiveness of each value chain, bringing more and better produce to end markets for years to come. Project-supported collection centers, management systems, and market facilitation workshops have built trust among parties, linked small farmers to larger end markets, and brought traders and firms a steady supply of goods that meet national and international standards. Contract farming in ginger and tea ensures steady incomes for farmers and a reliable flow of high-quality goods to processing firms to export.

LESSONS LEARNED

Simple solutions, done right, are key. Complex development challenges often require simple solutions. An example was the project's work to develop tea collection centers. While the concept is not new, NEAT secured buy-in from firms by explaining how collection centers would improve their business, then worked with farmers to choose locations and build management capacity. Integrating value chain actors resulted in transformation of these agricultural communities.

Investments by processing and trading firms in the supply chain are essential for continued profitability. NEAT worked with five tea factories to cost-share the establishment of collection centers and training programs targeting smallholder tea growers. The tea factory investments increased the quality and quantity of green

leaf available and brought farmers higher sales and profits. The project supported establishment of the first large-scale ginger processing facility in Nepal and linked the processor with more than 3,000 small-scale ginger farmers. The farmers earned a 15 percent premium over the market price, and the processor bought more than 1,000 metric tons of raw ginger and exported washed and processed ginger valued at \$550,000 in one season. In the lentil sector, only one of 18 processing plants partnered with the project to expand linkages with farmers even though most plants operate at only 35 percent of capacity and there is an assured market for all processed lentil at a premium price. As a result, the project's partner in lentil increased the value of exports significantly. Partner SEAN Seed Service Centre (SSSC) had great success commercializing local hybrid seed production by investing and forging partnerships upstream with seed producers and downstream with input suppliers. Although some firms are reluctant to invest in their supply chains, experience demonstrates that such investment yields positive results.

Use local knowledge and secure local buy-in. To boost lentil production, farmers were first asked why they were using the techniques they were using, then helped to understand how they could become more efficient. Farmer engagement led to the implementation of a large-scale demonstration and training program encompassing 11 districts, 17,537 farmers, and 1,842 demonstration sites.



Workers weigh green leaf at the Kanchanjangha Tea Estate factory. Kanchanjangha was one of NEAT's 19 grantees in the tea sector.

Strengthen value chain linkages to build trust and increase collaboration. AgEC training for 7,697 producers, input suppliers, and traders focused on business skills, as well as building sustainable relationships among value chain actors. Relationships built around knowledge and trust served as a foundation for sustained economic growth. In a survey of project-assisted farmers, more than 90 percent reported having better busi-

ness relationships with input suppliers, and 88 percent said they have better relationships with traders after participating in training.



Chilies for sale at Buddhi Haat Bazaar, Kapilvastu, western Nepal. With NEAT support, farmers increased their productivity of vegetables that have high market value, including chili.

CHAPTER THREE

IMPROVING LIVELIHOODS AND INCREASING RESILIENCE

CONTEXT AND CHALLENGES

Nepal ranks among the most food-insecure countries in the world. Historically, most farmers have been subsistence farmers. Conflict, increasing food prices, and frequent natural disasters exacerbate food insecurity. In addition, men migrate for work, which breaks up households and leaves women to farm with little access to inputs, infrastructure, and markets. NEAT worked to bring traditional subsistence farmers, most of them women, into formal value chains.

APPROACH

NEAT sought to promote sustainable, improved production practices in food-insecure districts by facilitating access to markets, financing, and high-quality inputs; increasing production by introducing good agricultural practices; encouraging livestock production by landless

farmers; and introducing crop diversification for increased income and nutrition. To build farmers' confidence and promote ownership, the project worked with food-insecure households through a phased approach over five crop seasons to introduce improved farming practices, encourage increased investments in agriculture, and facilitate market linkages.

KEY ACTIVITIES AND RESULTS

NEAT provided 28,708 households — 69 percent of them women — with crop or livestock management training. As a result, 7,685 hectares came under improved management practices or technologies; 19 percent of assisted farmers leased land to cultivate additional crops; 1,204 irrigation systems covering more than 2,568 hectares were installed; 50 metric tons of improved and hybrid seed

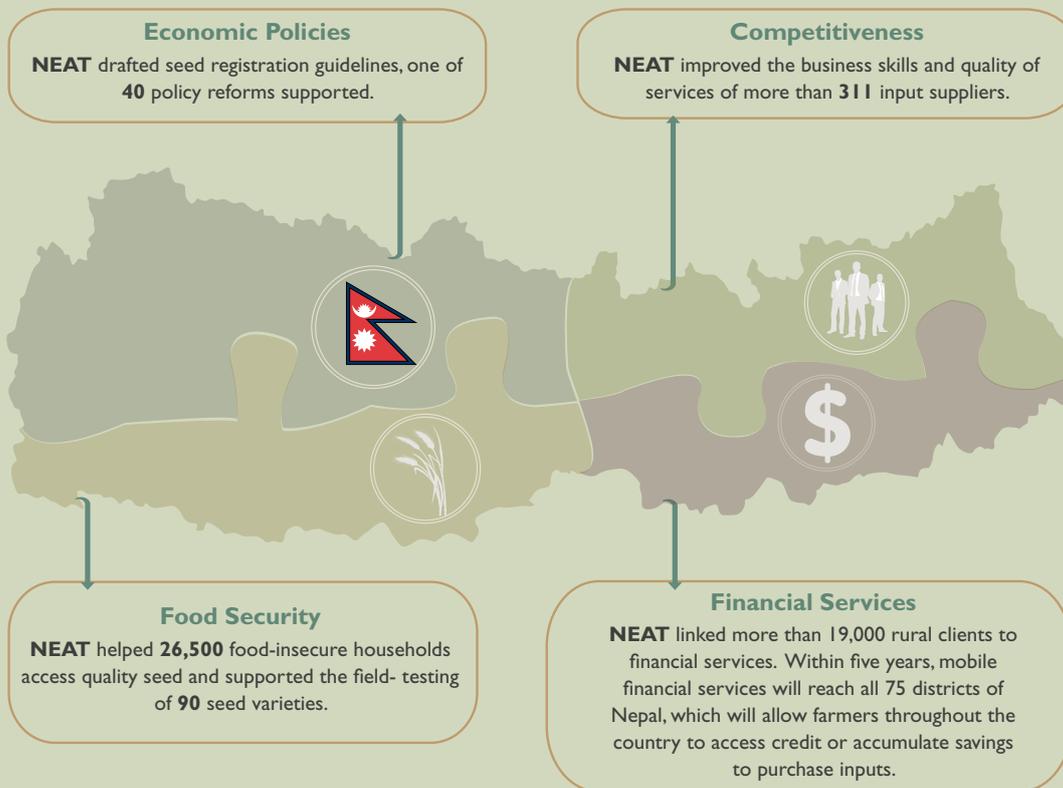
IMPROVED ACCESS TO INPUTS

What are the constraints to accessing **Inputs**



- » Regulations for the registration of new seed varieties are lacking.
- » Quality inputs are often unavailable in time for the planting season.
- » Farmers are not yet convinced of the positive return on investment from improved inputs.
- » Farmers lack access to credit to invest in inputs.

NEAT's multisectoral approach to improving access to **Inputs**



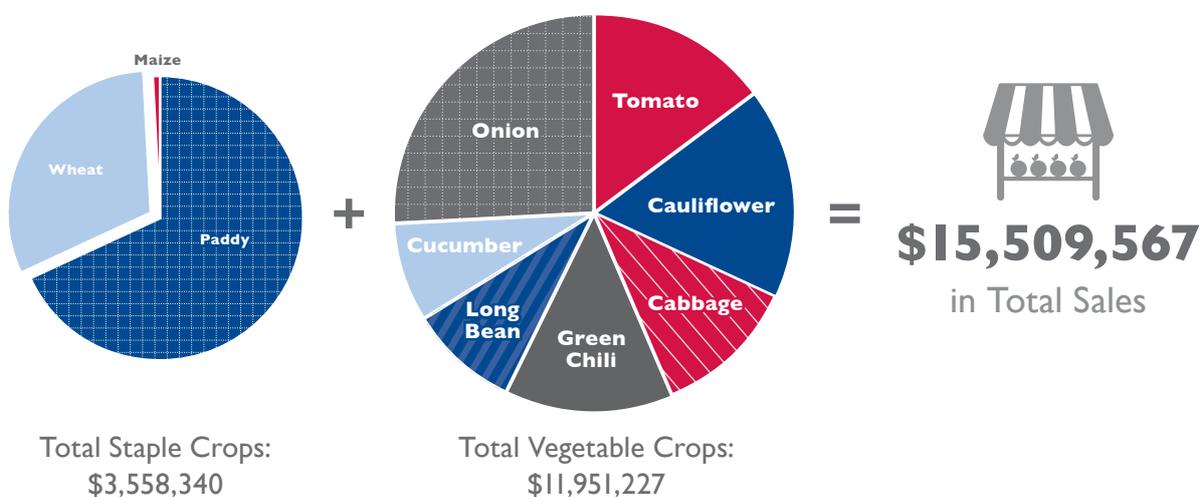
Improved productivity with increased use of quality **Inputs**



NEAT's approach has increased the availability and quality of seeds and other inputs in the market. More than 51 metric tons of hybrid and improved seeds have been produced and sold in Nepal. Farmers are seeing a positive return on investments in improved seeds, as farmer sales have increased by more than \$24 million in less than two years. 84 percent of farmers who now have access to savings or credit are using their funds for farm inputs.

INCREMENTAL SALES OF FOOD-INSECURE FARMERS

IN USD



CALCULATED RISKS YIELD REWARDS

NEAT shared the cost of improved inputs on just 0.1 hectare of land per farmer over the course of five crop seasons. Farmers saw a clear return on their investment, as 97 percent remained enrolled until the end of the project, by which time assisted farmers were using improved technologies on more than 0.28 hectares each, or 7,685 hectares total.

produced in Nepal was sold to Nepalese farmers; and farmer sales increased by \$15,766,543 and were projected to increase by another \$7 million in the summer of 2013.

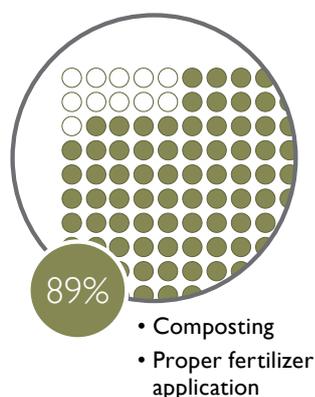
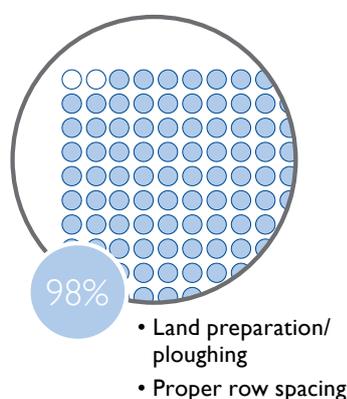
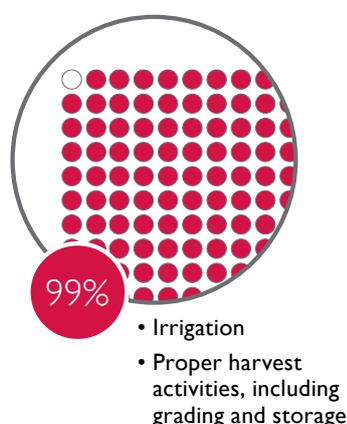
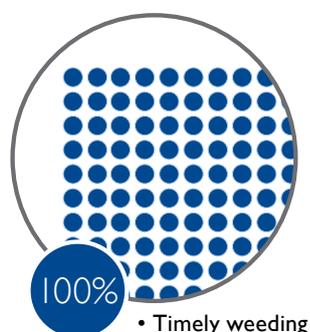
IMPROVING AGRICULTURAL INPUTS AND PRACTICES

A phased approach to assistance and cost-sharing. NEAT helped subsistence farmers and disadvantaged households boost productivity, product quality, and sales in 14 food-insecure districts through an innovative phased approach, applying hands-on assistance across multiple crop seasons and sharing the cost of improved seeds and other inputs on a declining scale for a small experimental plot on each farmer's land. The model reduced farmers' perception of risks related to planting new crops, using better inputs,

and trying new technologies. As farmers gained confidence, they gradually began investing more and needed less project support. Project technical staff encouraged farmers to diversify their crops, and to increase production and productivity in vegetables, key staple crops, and small livestock, thereby addressing the two main determinants of food insecurity in Nepal: low and variable agricultural productivity, and limited access to food.

The phased approach revolved around five crop seasons. Farmers shared 40 percent of the cost of improved seed and fertilizer in the first production season. In addition, the first and second production seasons focused on intensive training in good agriculture practices and diversification into vegetable production. In the third to fifth seasons, the project continued

IMPROVED TECHNOLOGIES ADOPTED BY NEAT FARMERS



to offer productivity training but also placed a strong emphasis on market linkages, market information, and collective bargaining. By the fifth season, all farmers paid for 100 percent of their inputs and had increased their incomes significantly.

Increases in the number of farmers diversifying into vegetables, growth of farmer sales, and increases in land area under improved technologies all directly correlated with the length of farmer involvement in the program. As farmers saw change, they invested more in their land. For example, farmers were using improved technologies and practices on 0.15 hectares after one crop season, on 0.22 hectares after two crop seasons, and on 0.29 hectares by the fourth crop season. Also, farmers started to invest more money in improved or hybrid seed over each crop season. In the final phase of the project, where farmers were responsible for 100 percent of input costs, 88 percent of farmers producing paddy purchased improved or hybrid seed. Binita Chaudhary, a farmer from Kailali district said: “In the past, all the money we earned from the land had to be invested back into the land. Now, due to increased production and sales, we are able to meet our needs, and we save on a regular basis. We no longer have to take out loans to purchase seeds.”

Farmers received training from 14 district managers, 80 field technicians, and 160 community agriculture facilitators on critical production practices such as land

preparation, nursery management, soil nutrient management, irrigation, integrated pest management, post-harvest handling, and market linkages. Community agriculture facilitators continue to serve as important resources for farming communities post-training. At the end of the project, 94 percent of assisted farmers reported being linked to someone in their community who could continue providing agricultural information.

To stimulate wider interest in new practices, NEAT organized field days involving farmers and other stakeholders before each crop’s harvest to demonstrate the superiority of the improved and hybrid varieties coupled with good agricultural practices. With project encouragement, farmers switched some of their land from cereal to vegetable crops. During project implementation, the land area dedicated to vegetable cultivation increased during the monsoon season by 157 percent and during the winter season by 208 percent. This increased their incomes and improved household nutrition.

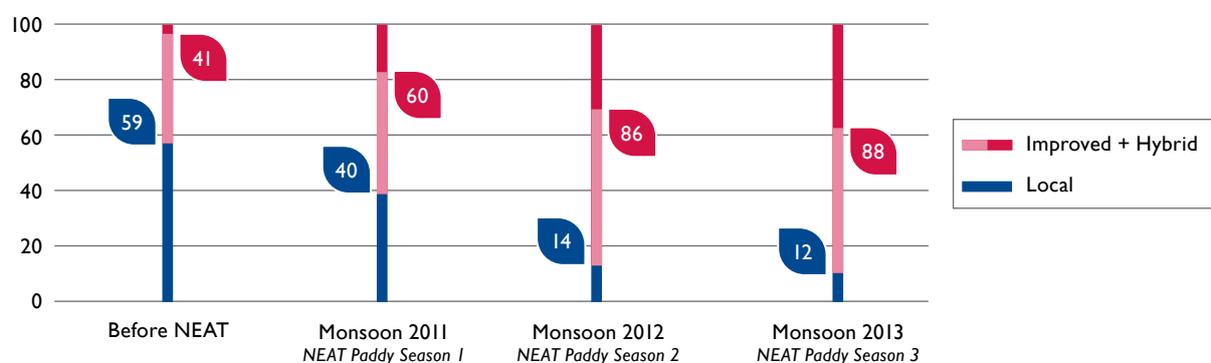
Irrigation. Most people farm on land that is entirely rain-fed. As a result, they produce mostly for home consumption and sell only a small surplus in the market. Yields vary greatly depending on rainfall, and most farmers are reluctant to diversify into vegetable farming without a reliable water supply. An irrigation scheme dramatically reduces the chance for crop failure while also increasing production and quality. To address this challenge and



Ram Prasad Tharu, a chili farmer, used to earn less than \$0.25 per day as a laborer. With NEAT support, now he owns his own farm and produces two harvests a year, earning \$2,350 annually.

TYPES OF PADDY SEED PLANTED BY FOOD-INSECURE FARMERS

IN PERCENTAGES



INCREASED AREA UNDER VEGETABLE CULTIVATION BY NEAT FOOD SECURITY FARMERS

IN HECTARES (HA)

	AGRICULTURAL SEASON	
	Monsoon	Winter
Before NEAT Ha per farmer	0.06	0.04
After NEAT Ha per farmer	0.15	0.12
Before NEAT total	1,509	1,025
After NEAT total	3,877	3,156
Percent increase of total area under vegetable cultivation	157%	208%

safeguard food production, on-farm employment, and incomes, NEAT provided the materials and farmers constructed 1,204 small-scale irrigation schemes in 14 food-insecure districts. The project identified low-acreage farmers without irrigation and selected sites that could be irrigated and where irrigation would reach the maximum number of farmers. Irrigation technologies included shallow and deep tube wells, plastic ponds, cement water harvesting tanks, canal rehabilitation, drip irrigation, and lift irrigation, among others. Tahaki Tharu of the Shristi women's farmers' group of Mainapokhar said her group was able to grow more vegetables after receiving and installing a new water pump. The project provided materials, while farmers contributed the installation costs and labor, sometimes with assistance from VDCs or other donors, including Oxfam. NEAT also provided training to mechanics in all districts so that maintenance and repair of irrigation facilities and equipment could be

handled quickly, inexpensively, and locally.

BRINGING FARMERS INTO THE FORMAL VALUE CHAIN

Market linkages. In addition to providing technical assistance to help farmers grow more productive, nutritious, and diverse crops, NEAT facilitated sustainable linkages between food-insecure farmers and other key value chain actors, including input suppliers, traders, and micro-finance institutions.

To strengthen relationships with farmer groups at the value chain level, the project provided orientation and training to nearly 74 private input suppliers on how to give technical advice to farmers. In the second and third year, training was expanded to include demonstration site activities to increase interaction between input suppliers and farmers and to build marketing, business, agronomic, and veterinary skills. Subsequently, 84 percent of input suppliers reported that the

number of clients had increased, 38 percent said existing clients were buying more products, 70 percent said they now talk to farmers in the field about what types of seed they need, and 52 said they ask farmers how much seed they will need. These input suppliers are now able to provide sound technical advice and recommendations on crop production to their farmer clients in 14 food-insecure districts. More than 90 percent of beneficiary farmers reported having access to improved inputs, up from 21 percent previously.



RESPONDING TO MARKET SIGNALS

“If my cucumbers are not selling in the market, I will go to a few markets to talk to customers and understand what other vegetables are in demand and grow what is selling well in the market.”

— Man Singh,
Durgauli VDC

Farmers were also trained on how to collect market information, respond to market signals, and negotiate with buyers as a group to secure better prices for their produce. Farmers now speak directly with traders and input suppliers about what is in demand, and they decide what to grow based on market trends. Among beneficiary farmers, 92 percent reported having direct market access, and 67 percent said they were linked by NEAT; 78 percent reported being able to influence

the price of their products by grading and sorting, improving packaging, or timing sales, up from 11 percent previously.

Block farming. Farmers who work alone or with just a few family members are unable to develop strong relationships within the value chain or to bargain for a better price based on volume. To address this challenge, NEAT trained district managers, field technicians, and community agriculture facilitators to encourage the formation of new farmer groups and to teach group management skills. Training focused on teamwork, clarifying roles and responsibilities, keeping records, negotiating collectively, using block farming — sharing land to cultivate the same crop — and strengthening linkages to traders and collection centers.

Promoting block farming enabled farmers to aggregate their produce to engage in collective bargaining. Because of the larger volume, buyers reported they were more willing to collect the goods and transport them to markets. In total, NEAT helped facilitate 395 block farming schemes in three regions. In all food-insecure districts, 23 percent of farmers are now using collective marketing.

Commercial vegetable production. As NEAT farmers transitioned from staple crop production to commercial vegetable cultivation, farmer sales increased by more than \$15.5 million over the life of the project, of which nearly \$12 million were generated from vegetables.

UNITING FAMILIES

Twenty-two percent of food-insecure farmers reported that at least one family member had previously migrated for work but returned home, or had decided to stay home and work on the farm, because of project support.

Social capital and access to credit.

Groups learned the importance of business plans (crop planning) and financial management, how to manage their groups effectively, and how to take advantage of the skills of each member. By the end of the project, 77 percent of farmers were keeping records as a result of the business skills training, up from 4 percent previously. These groups also started their own savings and loans programs: 92 percent reported having access to savings and credit, up from 37 percent previously. Of those participating in a savings and credit program, 84 percent were using their loans for agricultural investments.

By working together, farmers were able to solve larger problems affecting the farming community. For example, as the Temhi Farmer group transitioned into commercial vegetable farming, the importance of having a road to transport their goods became crucial. The government was unable to provide the road, so the group pooled together more than \$250 for the materials and constructed one kilometer of road themselves.

Empowerment and social norms.

Increased resilience to food security shocks and newly acquired business skills, social behaviors, and practices in the home and community transformed lives. Farming is now seen as a viable livelihood option, and some men no longer feel they have to leave their families and migrate for work. Women who lacked confidence and rarely left the house are

now running businesses, traveling freely, and assuming leadership roles. They have gained a voice in household decision-making and financial management, and as a result, conflict in households has declined and trust has increased. Families are also investing in education. When families were asked how they were using their increased income, the most frequent answer was to pay for children's schooling. Families are investing more in nutritious food, such as vegetables and dairy products, because they have seen that other families' children are healthier when they eat well. More households are taking a longer-term approach to planning and investments, a change from previous survivalist attitudes.

CREATING LIVELIHOOD OPPORTUNITIES FOR LANDLESS FARMERS

Rising food prices — particularly for grains, vegetables, poultry, dairy, and meat products — have increased food insecurity among the poorest and most vulnerable. Recognizing that livestock production, especially for landless farmers, could increase incomes and household consumption of nutritious food products, NEAT's livestock management program engaged food-insecure households in raising poultry, goats, or pigs. Animals and training were provided under a cost-share arrangement, with the beneficiary providing animal housing, food, and vaccinations. In total, NEAT supported more than 1,500 households in the livestock program. The full value of livestock consumed,



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Shanti Chhetri is a vegetable farmer in Bardiya, midwestern Nepal, sells her produce to markets in nearby Nepalgunj and across the border in Kohalpur, India. By encouraging block farming and teaching group management skills, NEAT helped farmers bargain for a better price based on volume, and to connect to traders and collection centers.

SNAPSHOT

Subsistence Farmers Learn to Read Market Signals

Nepal's subsistence farmers struggle to feed their families throughout the year. As a result, many go abroad to earn a living. When Shanti Chhetri's husband went to India to work, she was left to care for her family of nine with only the small amount of money he was able to send back.

Things are different now. With NEAT support, Chhetri began planting vegetables to sell in the local market. Two years later, she earns enough to support her family and hopes to bring them all back together. "I plan to expand my farm so that my husband can come home and work here with me on vegetable farming," she says. "My experience has given me the confidence to undertake this on a larger scale."

NEAT provided intensive training in good agricultural practices to Chhetri and other farmers, helped them access improved inputs, and linked them to markets. Every morning, a member of Chhetri's cooperative calls traders in all the major local markets to find out where demand is strongest and where their produce will sell at the best price.

Many traders come directly to the cooperative's collection center to pick up produce because it is high-quality and sells at an attractive price. The cooperative also sells directly to larger markets in the area, choosing where to sell based on price. Some of their vegetables even reach Kathmandu, 20 hours away by road.

Besides improving food security for Chhetri's family, vegetable farming has elevated her status in the community. In her role as vice chairperson of the cooperative, she advises fellow farmers on what kinds of seeds to buy, how to plant them, and ways to reduce post-harvest losses. "If all farmers plant the same crop, prices for that crop will drop, so we have to understand the market" she says. NEAT also taught the farmers how to link with local input suppliers so they can continue to buy high-quality inputs.

Food-insecure farmers assisted by NEAT now understand market signals and know how to use market information to decide which crops to grow and where to sell them. They are investing more in their land because they know there is a market, and they are seeing the benefits at home.

HYBRID AND IMPROVED SEED PRODUCTION
IN KILOGRAMS (KG)

	AMOUNT
Radish	32,405 KG
Broadleaf mustard	1,560 KG
Cucumber	587 KG
Cauliflower	2,071 KG
Tomato	525 KG
Maize	12,875 KG
Total hybrid and improved seed production	 50,023 KG = 50 Metric Tons

sold, and remaining is more than \$450,000. With remaining livestock, these households will continue to generate income from their investments in livestock.

SUPPORTING RESEARCH AND DEVELOPMENT

Hybrid seeds. Hybrid seeds have increased quality and boosted yields in Nepal and worldwide, but most hybrid seeds in Nepal are imported and sold at premium prices. SEAN Seed Service Centre (SSSC), a private sector seed company, recognized an opportunity to enter a new and profitable line of business: hybrid seed from Nepal. For NEAT, local production of hybrid seeds reduces reliance on imports, creates a new Nepali industry, and generates an income stream for seed-producing farmers, often located in remote areas of the country.

With project support, SSSC selected crops for which seed was being imported in large quantities and for which new hybrid varieties had already undergone testing by the National Agricultural research Council (NARC). SSSC evaluated which geographical areas would be best suited for producing each type of seed and then entered into a contract arrangement with farmers to produce seed for the company. SSSC provided training to farmers, who were enthusiastic about getting into the seed production business. The program guaranteed farmers a 100-percent buy-back and provided the technology and support needed to enter this new business.

SSSC started producing hybrid seed commercially at the farmer level for the first time in Nepal. The company also decided to expand commercial production of popular improved seeds. SSSC has successfully produced 50,023 kilograms of improved and hybrid seed for radish, broadleaf mustard, cucumber, cauliflower, maize, and tomato. As a result, Nepalese farmers now have access to hybrid and improved seeds more affordably and from a local source through the SSSC’s network of more than 40 input suppliers.

SSSC trials showed significant success with and potential for a new local hybrid maize variety. As a result, SSSC piloted a “hybrid maize village” in 2013, contracting 29 farmers to produce hybrid maize seed, improving the livelihoods of the farmers involved and guaranteeing the supply of a new seed variety in growing demand in the market. SSSC anticipates they will be able to increase the domestic supply of commercial hybrid maize seed by 50 percent within the next twelve months.

IMPACT

NEAT’s phased approach resulted in farmers converting to high-value vegetable crops and incrementally taking full responsibility for purchasing improved inputs as their incomes increased. As a result, farmers continue to invest in farming and have access to formal markets to sell their products. Households are saving more, women are gaining confidence and taking



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Women package hybrid maize seed for sale to input suppliers. NEAT support has reduced the need for expensive imported seed while promoting hybrids that improve quality and increase yield.

SNAPSHOT Hybrid Seed Production Takes Root

Nepal is a food-deficit country, where two out of three people experience food insecurity. With a growing population, Nepal has a critical need to boost agricultural production. Using hybrid seed can significantly increase productivity, improve disease resistance, and reduce water requirements.

Until recently, nearly all hybrid seed in Nepal was imported and expensive. Through a partnership with the Seed Entrepreneurs' Association of Nepal Seed Service Center (SSSC), NEAT supported the country's first commercial hybrid seed production. This provides Nepali farmers access to local, trusted hybrid seeds at an affordable price.

SSSC is helping the Sailung Seed and Vegetable Production Farmers' Association produce hybrid seed. A group of 29 farmers now specialize in hybrid seed production, and approximately 200 farmers are producing improved seed. SSSC ensures a high-quality product by training farmers on hybrid seed production and using state-of-the-art processing techniques that include grading, lab tests, and proper packaging and labeling. SSSC works throughout the supply chain, providing a 100 percent buy-back guarantee to farmers and promoting the new local hybrids among input distributors.

An input distributor in Kalimati who sells SSSC-packaged hybrid seeds noted an increase in demand for locally produced hybrid seeds. "The quality of the product is good and the prices are significantly lower than the imported seeds, so the farmers keep coming back for it," he said.

The Sailung cooperative signed an agreement with SSSC to produce 60 kilograms of hybrid tomato and maize seeds for the 2013 season and has a goal of producing even more in 2014. SSSC has surpassed its goal of increasing the domestic supply of hybrid maize seed in the market by 50 percent.



Prakash Adhikari's daughter smiles as she holds a cauliflower they picked from their farm for dinner. Prakash recently returned from Qatar to start vegetable farming.

on leadership positions, families are sending their sons and daughters to school, and men have the option of staying on their farms to earn a living rather than emigrating.

LESSONS LEARNED

Provide support that coincides with key decision-making periods in the agricultural season.

NEAT's phased approach allowed food-insecure farmers to take small, calculated risks over five crop seasons. Farmers saw a positive return on their investments in new technologies such as improved seed and fertilizer and diversification into vegetables. Project technical support helped farmers decide what seeds to buy, how to plant and harvest them effectively, and how to get them to market efficiently. Farmers reported that the project's relevant and real-time support gave them the confidence to take risks. Many farmers expanded vegetable production significantly and are now selling to traders in the formal value chain.

Promote commercial vegetable production to increase incomes and household resilience. NEAT's strategy of promoting diversification of farmers into commercial vegetable cultivation to increase incomes and resilience has been very successful. Beneficiary farmers increased their cumulative sales by more than \$15.5 million over four crop seasons, of which nearly \$12 million was generated from vegetables.

Link to value chains for a sustainable exit. NEAT's strategy emphasized linkages between farmer

groups and buyers. Once farmer groups learned how to participate in the formal value chain, those relationships fueled demand and sustained growth. Farmers reported they plan to continue growing vegetable crops because they know there is a market for them and have built relationships with buyers. Linkages with input sellers will continue to provide farmers with access to the high-quality inputs they need to meet market demand.



Prajwol Bhattarai owns a general store in Biblyate, Ilam, and has been a mobile money customer since he opened his store. Through NEAT's partnership with banks, rural customers can pay bills, take out loans, and send and receive money without traveling long distances to a bank branch.

TRANSFORMING RURAL ECONOMIES THROUGH ACCESS TO FINANCE

CONTEXT AND CHALLENGES

More than 70 percent of households in Nepal have no bank account. Due to the high transaction cost of delivering financial services in rural and remote regions, formal financial institutions are hesitant to open new branches in those areas. As a result, microcredit and microsavings products for on-farm and off-farm income-generating activities are unavailable. Without formal financial services, households pay more for monetary transactions, and cash payments are less secure. Improved access to formal financial services enables farmers to make small investments in better farming equipment and irrigation, improved seeds or other inputs, and small-scale storage facilities. The impact of well-conceived, well-priced, and well-marketed financial products and services can be equally dramatic for non-

agricultural enterprises. External support for financial institutions helps mitigate the risk of expanding in rural and remote areas and introducing new products and services, resulting in increased access to financial services.

APPROACH

NEAT worked to expand coverage of formal financial services for rural clients, build the capacity of financial institutions to design and pilot new products and services, and strengthen financial institutions to continue delivering sustainable services and products.

KEY ACTIVITIES AND RESULTS

NEAT hosted Nepal's first mobile financial services summit, bringing together microfinance stakeholders to discuss building a mobile money sector with nationwide coverage. The project helped introduce two major in-



Workers in a stone quarry in Bagmati province receive their salaries through mobile phone transfers. With NEAT support, Mega Bank and Laxmi Bank introduced mobile banking services in hard-to-reach rural locations, expanding access for many villagers.

MOBILE PHONE BANKING: SPEEDY AND SECURE

For the 18.9 million people in Nepal with access to a mobile phone but not a bank account, mobile financial services allows for quick and easy financial transactions that would otherwise be difficult or impossible, including making or receiving payments, making deposits or withdrawals, or transferring money.

innovations: branchless banking using point-of-sale technology, and branchless banking using mobile phones. Branchless banking partners established 300 agents in 30 districts, reaching more than 19,000 new rural customers. NEAT partners disbursed \$2,388,187 in rural loans to 7,517 borrowers, mostly women.

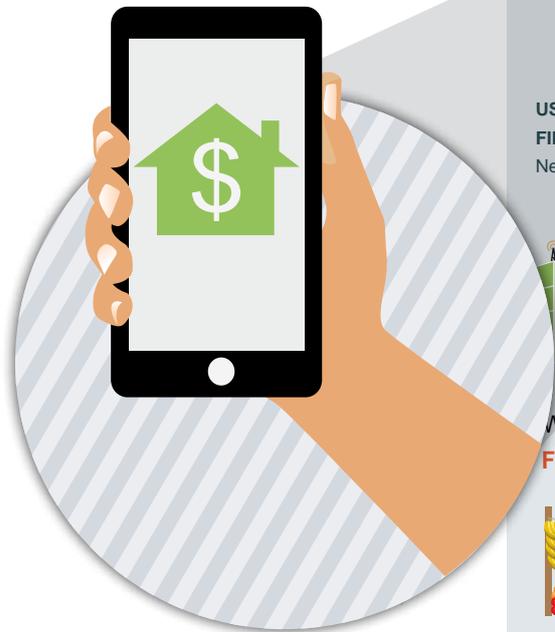
INCREASING ACCESSING TO FINANCE THROUGH MOBILE MONEY AND BANK SUPPORT

Mobile money momentum. Access to finance and banking services is one of many challenges faced by rural families living in poverty. Only 28 percent of households in Nepal have bank accounts. On the other hand, 70 percent of households have a mobile phone. This creates

an enormous opportunity to introduce banking that uses popular mobile technology and increase access to savings and loans for hundreds of thousands of unbanked households.

To spur the private sector to rise to the challenge, NEAT hosted Nepal's first Mobile Financial Services Summit in June 2012. The two-day gathering brought together Nepalese mobile financial services pioneers and international mobile financial services leaders to share experiences and deepen their understanding of the opportunities and challenges involved in branchless banking in Nepal, whether based on mobile phones or point-of-sale technology. Participants explored four broad topics: regulatory frameworks, business and operational models, products that can

Most households in Nepal, especially in mountain regions, lack access to financial services. NEAT partnered with financial institutions to launch the first mobile banking services in Nepal. Now, private sector leaders estimate that mobile financial services will reach all 75 districts of Nepal in five years, and new products such as insurance, health services, and market information will be available — benefiting Nepal’s rural population and growing the economy.



TRANSFORMING THE ECONOMY OF NEPAL THROUGH MOBILE FINANCIAL SERVICES

72% of NEPALIS are **UNBANKED**



50% of Nepal's GDP is in the **Informal Economy**

70% of Households have **ACCESS** to a **CELL PHONE**

USAID NEAT LAUNCHED MOBILE FINANCIAL SERVICES FOR THE UNBANKED IN NEPAL



USAID NEAT supported the first 300 mobile agents in rural Nepal. Transactions with mobile agents cost 20 times less than bank branches.



USAID NEAT supported the **FIRST MOBILE MONEY SUMMIT** in Nepal bringing key stakeholders together.



Now 3 mobile platforms working with 20 banks and 3 telecoms are **scaling up mobile financial services** in rural Nepal.



WHEN THE UNBANKED START USING **FORMAL FINANCIAL SERVICES**, MONEY IN THE **FORMAL ECONOMY** INCREASES



Household resilience and savings increase

Banks lend more money to businesses



Nepal's GDP **increases**



MOBILE FINANCE SERVICES: BIG NAMES, BIG PLANS

Laxmi Bank's successful launch of mobile financial services has generated significant interest from potential customers and the business sector. FinAccess, the company that developed the mobile platform used by Laxmi Bank, recently doubled the capital of the company, incorporating as investors:

- Kantipur Group, Nepal's largest media group
- Prabhu Group, Nepal's second-largest remittance company
- Buddha Air, Nepal's largest airline
- Agni Incorporated, distributor of Mahindra automobiles and tractors
- Jiba Lamichhane, president of the Nonresident Nepalese Association

FinAccess now has the capital and strategic partners required to ensure the success of its plans to rapidly scale up its services nationwide.

drive growth, and critical issues in making a mobile financial business profitable.

During the summit, a group of banks decided to join together to roll out a shared national platform, and a large national input distributor and a mobile platform provider signed an agreement to provide mobile money services through input retail agents nationwide. Meanwhile, the Nepal Rastra Bank (the country's central bank) released branchless banking and e-banking directives and announced their willingness to improve regulations as banks and regulators gain more experience with mobile financial services. This built a foundation for public-private cooperation to expand branchless banking.

NEAT partnered with Mega Bank to support the establishment of branchless banking outlets through point-of-sale devices, and with Laxmi Bank to support rollout of its Mobile Khatta service using FinAccess's Hello Paisa shared platform. For the banks, the partnership reduced the risk of launching a much-talked-about but untested technology and service with the potential to transform the rural economy. It enabled these banks to gain experience with new strategies, products, and pricing and to refine them to ensure future success. Through mobile banking and branchless outlets using point-of-sale devices, Laxmi Bank and Mega Bank now serve more than 10,000 customers in 30-plus districts at 300 rural locations.

With these services, many rural villagers with no prior access to financial services now have bank accounts or the opportunity to open them. In many cases, this saves hours of travel to the nearest bank branch to pay bills. Customers can also send money to or receive money from family members and take out loans to invest in income-earning opportunities.

The project also organized a study tour to Pakistan for key mobile money stakeholders and conducted market research on the use of mobile phones and demand for financial services. Mobile agents play a critical role in helping banks grow their customer base. They now market bank services and help enroll new bank customers at a fraction of the cost of setting up new branch locations. Reducing the outreach cost is critical for getting financial services to rural customers. Mobile banking has also brought the banks a new line of business.

STRENGTHENING MICROFINANCE INSTITUTIONS AND COMMERCIAL BANKS

New products and services for rural populations. Access to financial services in the rural areas of Nepal is severely limited. Microfinance institutions (MFIs) have reached areas where previously no financial services were available. NEAT helped two MFIs, Nirdhan Utthan Bank Limited (NUBL) and United Youth Community (UNYC), to open eight new branches in underserved areas.



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NEAT-supported mobile banking saves time and money for rural entrepreneurs like sand depot owner Umesh Sherchan. He no longer has to travel long distances to visit a bank or purchase supplies.

SNAPSHOT

Money on the Move in Rural Nepal

When Umesh Sherchan was young, he moved to Kathmandu to enroll in college. He had less than five dollars in his pocket — his whole life savings. Unfortunately, his plans came apart, so instead he found a job at a sand depot. After many years of hard work and saving money, Sherchan opened his own sand depot. Today, he owns two quarries in Sukute.

Despite Sherchan's success as an entrepreneur, paying his 40 employees and various business partners used to be a challenge. Sukute is a rural village without a single bank branch.

Previously, either Sherchan or one of his trusted employees had to travel long distances, carrying cash, to transact business at a bank or with business partners. This was not only risky, but also costly and time-consuming.

Then came mobile banking. Through a Laxmi Bank agent, Sherchan opened a Mobile Khatta account. He instructed his employees to open accounts and asked his vendors to do the same. Now Sherchan uses Mobile Khatta to pay employee salaries, his diesel supplier, and other vendors.

Mobile banking is revolutionizing business in rural Nepal. More than two-thirds of households do not have formal bank accounts — but they do have mobile phones. With NEAT support, Laxmi Bank was the first to launch mobile money services through 250 mobile agents. These agents offer Mobile Khatta-branded services in 16 districts. Services include mobile phone payments, loan disbursements and repayments, savings deposits and withdrawals, and money transfers, among others.

Sherchan is convinced that Mobile Khatta helped his company save time and money. At first, it was difficult to explain how it works to his staff and vendors. Most of his staff just stared at him or told him the idea was too far-fetched. "But now that they have experienced it and it actually works, everyone is amazed at the simplicity of getting things done," he says.

UNYC also piloted three new products in its branch offices in Sanoshree, Bardia, and Tikapur, Kailali: emergency loans, housing loans, and microenterprise loans. The emergency loans allow clients to borrow for emergency medical expenses such as accidents or surgery. Previously, those in need would be forced to borrow from informal sources at high interest rates. The housing loans allow clients to improve living conditions in their existing homes. Microenterprise loans allow clients to borrow up to \$2,200 to expand their businesses.

NUBL designed two products, one focused on long-term savings (Sambridhi Bachat Yojana) and the other related to project loans. The long-term savings product allows clients who deposit a set amount each month for 14 years to benefit by having the total amount saved matched by the bank. The purpose is to help clients meet needs for weddings and other events, higher education for their children, or purchase of a large asset.

UNYC's microenterprise loan and NUBL's project loan helped fill gaps in the market by reaching clients with borrowing requirements that are too large for group loans but not large enough for commercial bank loans. Targeting the small business sector with financial services generates new jobs and fuels economic growth. UNYC's and NUBL's eight new branches disbursed \$981,614 in loans during the grant period.

Training for MFIs. NEAT supported the Center for Self-Help Development (CSD), a national training provider, to develop and launch a training program for MFIs on risk management, value chain lending, and individual lending to rural clients. International experts helped develop the course and deliver trainer training to local resource persons. An international training and capacity building expert helped CSD develop a business plan addressing market demand and organizational sustainability requirements.

CSD's course on value chain finance, delivered with project support in April 2012, created such demand that CSD translated it into Nepali and repeated it three months later. As most MFIs focus almost exclusively on group lending, the course on individual lending filled a huge knowledge gap and helped close a major credit gap in the market. The initial course, in which 27 loan officers from 18 MFIs were trained, was significantly oversubscribed. In addition, CSD trained all of the branch managers from Swabalamban Laghubitta Bikas Bank Limited, the second-largest MFI in Nepal, with 106 branches, in individual lending as part of their plan to roll out a revamped best-practice individual loan product. In response to recommendations from the Nepal Microfinance Bankers Association and the Microfinance Association of Nepal, CSD delivered training on risk management. The CSD now regularly offers courses in



The expansion of mobile money services has made it much easier for business owners like Radhika Baral to make daily deposits into savings accounts. After making deposits for six months, Baral has become much better at managing her finances.

the eastern and western regions on financial management, delinquency management, account keeping, and micro-finance operational concepts and lending modalities.

IMPACT

The mobile money summit created momentum for the private sector to introduce mobile banking technology and launch a national platform for mobile money services nationwide. As a result of the summit and direct assistance to Laxmi Bank and Mega Bank, more than 10,000 rural customers who previously had no bank accounts now use branchless banking through either point-of-service or mobile technology. As a result of project support for MFIs more than \$2,388,187 million in micro-loans have been distributed to rural households.

LESSONS LEARNED

Support innovation through pilots. Investing in pilots is often necessary to spark innovation. Support for Mega Bank and Laxmi Bank to pilot branchless banking using point-of-sale and mobile phone technology allowed the banks to test new product lines and refine strategies that could help rural populations access finance.

Financial institutions will pay for high-quality training. Soon after NEAT's launch, a number of private sector representatives told the project team that financial institutions, particularly MFIs, would not pay for training. Experience over two years proved that financial institutions, including MFIs, are willing to pay a market price for high-quality training that responds to market demand.



Bishnu Khadka, from Palpa, studies a poster about vegetable production. NEAT trained people from 28,000 food-insecure households on improved farming practices.

BUILDING A SUSTAINABLE FUTURE FOR ECONOMIC GROWTH

Some key factors influencing economic growth in Nepal include the political and economic environment, reliable power supplies and infrastructure, and labor. NEAT supported the building blocks for economic growth by building capacity of the agricultural labor force to improve competitiveness and by working with the public and private sectors to enhance the business enabling environment. This section presents a discussion of areas that should continue to be strengthened to build on this foundation for growth.

POLICY

Recommendation 1: Keep up the momentum on policy reform.

Through government and private sector partners, and with technical support from numerous Nepalese and international short-term consultants and subcontractors, NEAT made significant progress in improving the policy and business enabling

environment, with 40 policy or administrative reforms analyzed and nine implemented. Those pending implementation will be carried forward by high-level champions. For example, the minister of Finance, the secretary of the Ministry of Industry, and the presidents of FNCCI and CNI are strong supporters of the Industrial Enterprise Act, so this reform should travel swiftly through the approval process. Other policy reforms pending final approval have USAID or other donor support. USAID should continue to support agricultural reforms, such as the Agribusiness Promotion Act and the agricultural mechanization policy. The International Finance Corporation continues to support business environment and trade reforms, such as streamlining the tax payment system. It is critical that the government of Nepal, the country's private sector, and development partners maintain the momentum created

through NEAT partnerships by approving pending reforms, effectively implementing and enforcing reforms already enacted, and continuing to work together to identify other ways to improve the business environment.

AGRICULTURE SECTOR COMPETITIVENESS

Recommendation 2: Consider investing in other promising value chains. Given the limited time frame, NEAT supported established value chains with high potential for quick and significant returns. However, other promising sectors where there may be a time lag between investment and impact should be considered for future investments if sufficient time and resources are available. Tourism, for example, has significant potential to increase employment and contribute to economic growth. Other service sectors, some of which Nepal made a commitment to opening up under the WTO accession process, such as ICT-related sectors, also have potential.

Recommendation 3: Value chain actors should actively work together to increase sector competitiveness. Each of the sectors NEAT focused on has an industry association: Himalayan Orthodox Tea Producers Association and HIMCOOP for tea, ANROPI for lentil, NGPTA — a new association — for ginger, and FEFVEN for vegetable. While NEAT worked with several of these, actors within each sector must join forces to become truly competitive in international markets. For example, with proj-

ect support, the tea sector made progress in selling the Nepal brand, but sales could accelerate if sector players work together to market Nepal-branded tea. As was demonstrated through NEAT's interactive workshops with input suppliers, producers, and traders, initiatives that build trust and improve communication among value chain actors are critical for strengthening the supply chain of high-quality products, increasing farmer and firm sales, and improving agricultural competitiveness.

FOOD SECURITY

Recommendation 4: Continue to promote commercialization among subsistence farmers. NEAT had significant success promoting diversification into cash crops and linking food security beneficiaries to formal value chains. Providing appropriate training and material support and facilitating linkages with more than 70 collection centers to improve market access was a key factor in this success and should be continued. While indications are that lasting change has taken place at the farm and community levels, NEAT's approach of providing intensive training to all beneficiaries should be evaluated for sustainability versus other lighter-touch models.

Recommendation 5: Continue to improve the competitiveness of commercializing farmers. As noted in Recommendation 4, NEAT demonstrated that a tailored approach can bring farmers into the formal value chain. Tremendous advances were



Ram Kumari Tharu (far right) formerly worked as a day laborer. With NEAT training in good agricultural practices, she now farms her own land and has significantly increased her income by growing and selling vegetables.

made in increasing production quantity, improving quality, and linking farmers with collection centers. As farmers continue to advance, they can link directly with wholesale or end markets. Already, some beneficiaries are linked with major hotels and other institutional buyers. Bhat-Bheteeni, an expanding supermarket conglomerate, has expressed an interest in buying direct from farming communities rather than through the large Kathmandu wholesale market.

Opportunities for farming communities are likely to increase in the years ahead if farmers can meet more rigorous quantity and quality requirements. Additional support to farmers, cooperatives, and business service providers is essential for improving overall agricultural competitiveness. As farmers become more competitive, there will be greater demand for inputs, transport services, and labor, which will also support economic growth in rural Nepal.



The sun sets over the Gogane Tea Producer Cooperative's collection center in Ilam, eastern Nepal. The cooperative is linked with the Gorkha Tea Estate, a NEAT grantee. Collection centers have raised productivity, quality, and sales by saving transport time and expense for tea producers and protecting the tea from the elements.

Recommendation 6: Strengthen the role of the private sector in research and development and extension. NEAT partner SSSC successfully commercialized local hybrid tomato and maize seed. It provides technical training to farmers who produce the seed and promotes marketing of the seed with a network of input suppliers. Other local seed and input companies have expressed interest in commercializing local seed production, including some of the country's major input suppliers country. This is an oppor-

tunity to expand farmer incomes through seed production, reduce dependence on imported seed, and promote the involvement of input suppliers and distributors in marketing higher-quality seed.

ACCESS TO FINANCE

Recommendation 7: Continue to promote agricultural sector growth through finance. NEAT analyzed the tea value chain for agricultural finance opportunities, developed an agricultural finance value chain lending course that was delivered to 18 financial

institutions and is now housed at partner CSD, and provided international expert mentoring on agricultural finance to four commercial banks. Demand for agricultural lending training is strong among local financial institutions for a number of reasons. First, Nepal Rastra Bank requires that commercial banks have 15 percent of their loan portfolios invested in agriculture and energy. Second, competition in the banking sector is forcing banks to look outside their comfort zone. Third, Nepal's economy is heavily dependent on the agricultural sector. NEAT worked with both MFIs and commercial banks to develop appropriate products to serve the sector; however, there remains significant demand from financial institutions for agricultural finance training. This type of training and mentoring could help commercialize the agricultural sector in Nepal.

Recommendation 8: Grow the economy by increasing the availability of finance to the unbanked and underbanked. Commercial banks have historically worked at the corporate level, providing only collateral-based loans to the larger businesses in Nepal. Most MFIs offer only small group loan products to the smallest micro-entrepreneurs. NEAT helped commercial bank partners Laxmi Bank and Megabank to enter the small and micro sectors with smaller individual loans. A training course helped MFIs introduce larger individual cash-flow-based lending products. There is significant scope for expanding the availability of finance to

businesses often seen as either too small or too large. Around the world, economic growth is often led by micro, small, and medium enterprises, which are often the strongest employment generators in the economy. Working with commercial banks to move down market and with MFIs to move up market will spur economic growth and increase employment. Although training and mentoring can have significant impact, regulations regarding collateral requirements for individual loans should also be reviewed.

Recommendation 9: Continue to expand access to financial services through mobile banking. NEAT helped launch mobile banking in Nepal. The project introduced key stakeholders to proven models and regulations on a study tour to Pakistan and brought some of the foremost experts in mobile banking to Nepal to share their knowledge and experience. More importantly, project support enabled two financial institutions to design and deliver services to a new market. As a result, one partner went from believing in an idea to developing a growth plan to reach over 200,000 clients in the following three years. Nepal is on the right road, but it has been proved around the world that mobile financial services are successful — and access to finance is maximized — when scale is reached quickly. More could be done to get to scale. Nepal Rastra Bank should analyze the regulations developed in countries with more branchless banking experience and incorporate best practices into



With microfinance services provided by United Youth Community, this new borrower opened a beauty products shop in March 2013, the first of its kind in the Parseni community.

Nepal's regulatory framework. Development partners should work with industry partners to provide incentives for the rapid establishment of agent networks.

COMPREHENSIVE PROGRAMMING

Recommendation: Leverage opportunities throughout the value chain. NEAT worked from the macro to the micro level to promote economic growth. Comprehensive program design presents unique opportunities to leverage different perspectives to overcome challenges and promote growth. For example, better access to improved inputs is a key factor in increasing agricultural productivity (see graphic, page 46). NEAT worked at the policy level to promote new seed guidelines, with seed companies to increase

local production of improved and hybrid seed, with input suppliers to improve their business and marketing skills, with farmers to improve access to high-quality seeds, and with financial institutions to expand services to rural areas so that farmers could borrow money to invest in improved inputs. NEAT's multidimensional structure allowed the project to address barriers and take advantage of opportunities at every level of the seed value chain. Now, nearly every farmer that NEAT supported has access to improved seed, and more than 51 metric tons of seed produced in Nepal is available in local markets.

NEAT LIFE-OF-PROJECT KEY RESULTS

\$26,544,519	Change in value of incremental farmer sales of selected sectors
14,913	Number of hectares under improved management technologies or management practices as a result of U.S.-government assistance
73,909	Number of rural households benefiting directly from U.S.-government interventions
40	Number of policy reforms, regulations, or administrative procedures analyzed and drafted and presented for public stakeholder consultation
20	Number of policy reforms, regulations, or administrative procedures presented for legislation/executive consideration
9	Number of policy reforms, regulations, or administrative procedures passed/ approved and for which implemented has begun
1,888	Number of participants in trade and investment or fiscal policy environment training
3	Number of commodity associations/NGOs strengthened in advocacy
60	Number of public-private dialogue events held
2,700	Number of participants in public-private dialogues/events
22,485	Number of hits accessing NEAT-supported information portals
2,677	Number of food security private enterprises (for-profit), producer organizations, and community-based organizations receiving U.S.-government assistance
80,614	Number of individuals who have received U.S.-government-supported training
42	Number of improved production and processing processes and marketing approaches adopted
42,315	Number of MSMEs, including farmers, receiving business development services from U.S.-government-assisted sources
15,263	Number of microenterprises linked to larger scale firms as a result of U.S.-government assisted sources
75	Number of new or upgraded collection centers
28,708	Number of people who have received U.S.-government-supported short-term agriculture sector productivity and food security training
27,984	Number of farmers who have applied a new technology or management practice as a result of U.S.-government assistance
91	New technologies or management practices under field testing as a result of U.S.-government assistance
\$2,388,187	Value of new loans made by assisted microfinance institutions
7,517	Number of new borrowers from U.S.-government-assisted microfinance institutions
7	Number of supported microfinance innovations implemented
128	Number of financial sector professionals trained on international standards



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