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1 Progress summary

The year 2014-2015 has brought significant changes to the project implementation structure and outputs, following the mid-term review process and also in view of changing policy contexts and exceptional events that influenced the project direction. The EnLiFT project team has been fully engaged with on-ground activity, has re-structured the expected delivery of outputs, and faced with the task of adapting to the consequences of the series of major earthquakes beginning 25th April 2015. Research teams have also produced a number of outputs including draft journal papers and conference presentations.

Action research engagement is now fully in place with stakeholders at all levels under two of the three project themes - agroforestry and community forestry. The work on the third theme 'under-utilised land' is still developing with significant changes on the scope of work and its methodology. Engagements with the priority research community forest users groups (CFUGs) and local research groups (LRGs) in the main research sites of the two project districts have been to implement action research on: community forest operational plans and silvicultural trials, new agroforestry products and fodder trials; market development for agroforestry and community forest products; and modelling to understand the farm-forest interface. Delivery of outputs on under-utilised land has been delayed.

During this reporting period, there has been an extensive consultation with government agencies at district level, e.g. District Forest Office, District Agriculture Office, District Soil Conservation Office, District Livestock Development Office and the District Development Committee to encourage contributions of both national and local governments. EnLiFT has also established and strengthened collaboration with these and other non-government agencies in impact pathways, as well communicating initial project findings which need immediate policy intervention. There have also been consultations with senior ministry officials as part of the EnLiFT Policy Labs to create a working science-policy dialogue, which has led to a remarkable policy uptake of research findings and insights on issues related to community forest management and private forestry development. Two meetings were also held with the Project Advisory Committee composed of senior officials of the Ministry of Forests and Soil Conservation and key project representatives to discuss project operations and policy issues for action. One of the outcomes of these meetings was the visit of the Director General for Forests and Australian Ambassador to Nepal to Chaubas sawmill in the light of understanding how community-based timber enterprises may be operated by local people. In the post earthquake scenario, EnLiFT is also actively contributing to Nepal government's policy exercise increasing timber supply for the post earthquake reconstruction by harvesting mature trees from community forests, drawing on our ground level silvicultural and community forestry planning works from the project sites.

There was a significant change of project structure as a response to the Mid-Term Review in January 2015. The original 14 research activities have been re-bundled into 7 research sub-themes that meet the core three objectives, viz:

Objective 1: To improve the capacity of household based agroforestry systems to enhance livelihoods and food security

- 1 Market-oriented Field Interventions,**
- 2 Impact of Agroforestry Interventions;**

Objective 2: To improve the functioning of community forestry systems to enhance equitable livelihoods and food security of CFUG members.

- 3 Inclusive Community Forest Planning**
- 4 Active and Equitable Forest Management**
- 5 Market Responsive Community Forest Institutions**

Objective 3: To improve the productivity of, and equitable access to, underutilised and abandoned agricultural land

6 UUL communication and typology

Objective 4: To strengthen research-policy interface in community forestry and agroforestry governance for improving equitable livelihoods and food security

7 Research-Policy Interface

Objective 4 is additional to original project structure. It does not change in the scope of work beyond the current allocation of the budget. The idea for this change is just to recognise the unfolding portfolio of work around science-policy interface that crosscuts all research themes.

The key performance indicator for this period was framed as a publication on “Drivers of farming systems adaptation, farmers’ existing agroforestry practices, and perceptions of limitations to their livelihoods across six agroecological settings in the Middle Hills region”. This has been delivered in the form of the paper *Factors of adaptation and future of agroforestry in Nepal* by Nuberg, Cedamon, Pandit and Shrestha being prepared to submission the journal *Agroforestry Systems*. The data for this paper was derived from an analysis of the quantitative and qualitative surveys undertaken in 2014.

Two major earthquakes, 24/4/15 and 12/05/15 are regarded as the worse natural disaster to strike Nepal since 1934. Only one of the six project sites is relatively unaffected. EnLiFT has an interim earthquake response strategy, which has been discussed among project leaders in Nepal and within the Project Executive Team. The plan will be elaborated and confirmed by July 2015 through joint meetings of Australian and Nepalese researchers in Kathmandu in June/July. Our preliminary strategy is to conduct an assessment of earthquake impact in the project sites and then consider any conceptual adaptations (such as integrating disaster risk in the food security and livelihoods research agenda) policy development needs, which the project can support. For example, as timber is urgently needed for reconstruction efforts, activities facilitating the flow of timber from community forests and private farms can be given priority. Immediately following the earthquake, some of the regular programmed activities have been put on hold for a month, and our research teams visited project sites to express our sympathy to the people in the affected sites, while activities related to policy linkage, data analysis and report writing continued.

2 Achievements against project activities and outputs/milestones

2.1 Changes to Outputs following Mid-Term Review

The tables below present the revised and re-numbered Outputs Table, prepared by the project team following the Mid-Term Review in February 2015. A list of the original and new research activity descriptions is provided in the set of tables that follow. (It is also shown in Figure 3, Section 5, indicating which old activities are subsumed into the new activities). The first [A] of each set of tables show the completed outputs within the original activities. The second [B] set shows the new activities. The original outputs that have been deleted or re-written into new outputs are indicated in the comments column.

Objective 1: To improve the capacity of household based agroforestry systems to enhance livelihoods and food security

[A] Original Research Activity	Original & Completed Outputs	Planned & Actual Completion Date	Titles of output documents / comments
Activity 1.1: Identify baseline conditions and drivers of agroforestry practice and opportunities to improve productivity and increase income generation	O1: Workshop proceedings including a list of 'best-bet' innovations in agroforestry practice	[Y1:Q1] <i>July 2014</i>	Survey of Agroforestry Systems of Kavre and Lamjung Districts of Nepal Authors: SA Amatya, BH Pandit, I Nuberg, E Cedamon & YR Subedi,
	O2: Report of baseline information for developing pilot sites for use in Activity 1.5.	[Y1:Q3] <i>May 2014</i>	Research site selection report Authors: K.Paudel, YR Subedi, S.Tamang Quantitative Baseline Household Survey Report Compiler: Deepak Tamang Qualitative Baseline Report: Agroforestry Coordinator: Bishnu Hari Pandit
Activity 1.2: Analyse the markets and value-chains for products from agroforestry systems	O4: Report with short list of researchable existing and potential innovative market opportunities from both inside and outside Nepal that can be incorporated into agroforestry on private lands	[Y1:Q4] <i>June 2014</i>	Value Chain in Lamjung District Coordinator: BH Pandit Value Chain in Kabhrepalanchok District Coordinator: BH Pandit Agroforestry Nursery and Value Chain Training at Bode and Saraswoti Authors: MR Joshi, SS Neupane & BH Pandit Why cannot local communities do forestry business? Analysis of barriers in the value chain of private forestry products in Nepal BH Pandit, KK Shrestha, HR Ojha, I Nuberg.
Activity 1.4: Develop functioning models to inform improved interactions between farm and forest systems	O7: Report of model design workshop	[Y1:Q1] <i>July 2013</i>	EnLiFT Modelling workshop report Bogor 25-29/11/13 Compiled by: Remy Juita, Avniar N. Karlan, Lisa Tanika and Betha Lusiana
	O8: Model of decision-making processes in land use	[Y1:Q4] <i>Sep 2014</i>	All the modelling attention has been directed to quantitative ENLiFT model. That model has been presented to the project's social scientists to solicit their input on how to measure the impact of institutional and policy innovations. Developing a formal construct of farmer decision-making processes will become a part of that task.
	O9: Model of nutrient and energy flows in farm-forest system	[Y3:Q2] <i>Oct 2015</i>	Current status described in EnLiFT Modelling Concept Authors: R.Mulia & B.Lusiana The model evolved from a 'nutrient-energy flow' model to a model of an 'index of food security' so that it can more effectively integrate with other research streams in the project.
Activity 1.5: Plan, implement and evaluate participatory action research of innovative agroforestry systems and market opportunities at 6 sites	O12: Report of proposed participative research designs and value-chain enhancements	[Y2:Q2] <i>Dec 2014</i>	Value Chain in Lamjung District: BH Pandit Value Chain in Kabhre District BHPandit Agroforestry Nursery and Value Chain Training at Bode and Saraswoti Authors: MR Joshi, SS Neupane & BH Pandit Monitoring and Evaluation of Agroforestry Nursery and Seedling Distribution as Part of Action Research Activity 1.5- Outputs 12 and 13 Authors: R.Niraula & BH Pandit
	O13: 6 pilot sites of improved commercial agroforestry systems	[Y3:Q4] <i>Apr 2016</i>	Outline demonstration trials being undertaken as part of this activity in

	for demonstration purposes		Fodder Lopping Trial protocol. Authors: SM Amatya, ED Cedamon, BH Pandit, I Nuberg Loth Salla Harvesting demonstration Authors: ED Cedamon, SM Amatya, BH Pandit, I Nuberg Fodder Hedgerow trial Author: ED Cedamon
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[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
1] Market-oriented field interventions	Institutional mapping of AF	O1: Publication on "Drivers of farming systems adaptation, farmers' existing agroforestry practices, and perceptions of limitations to their livelihoods across six agro-ecological settings in the Middle Hills region" = KPI for 2014/156	JUN 2015	Delivered as publication "Adaptation factors and futures of agroforestry systems in Nepal" to be submitted to journal Agroforestry Systems
		O2: Report of Participatory Market Chain Appraisal of the full range of AF products (includes market trends and growing markets)	JUN 2015	The following outputs from the original plan have been deleted or re-written in new outputs O5: A policy discussion paper highlighting links between key governance variables and agroforestry contribution to livelihoods APR15 O6: A scientific paper demonstrating how prevailing policy, institutions and governance shape and determine the livelihoods and food security outcomes of agroforestry APR17 O17: Recommendations for institutional and policy arrangements to enhance livelihoods through agroforestry JAN18 O13: 6 pilot sites of improved commercial agroforestry systems for demonstration purposes APR16 O15: A resource book and other extension products for farmers interested in new agroforestry and market opportunities OCT17 O16: Farmer-to-Farmer training of improved agroforestry systems JAN18 O18: Recommendations for service provision to further the enhancement of livelihoods and food security from agroforestry JAN18
		O4: Report of training and outputs of participatory business plans of priority products for each of 6 sites	DEC 2015	
		O5: Scientific paper characterizing AF formal & informal institutions that can catalyse AF products marketing and their change over time.	DEC 2015	
	Priority product implementation	O6: 1 st cycle report of commercial plantings	DEC 2015	
		O7: 2 nd cycle report of commercial plantings	DEC 2016	
		O8: Extension package to facilitate expansion of innovations	JUN 2017	
		O9: Scientific paper AF interventions to enhance livelihoods and food security	DEC 2017	

[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
2] Impact of agroforestry interventions Impact of agroforestry interventions	Agroforestry trials	O10: Progress report of agroforestry trials (NAF)	DEC 2016	The following outputs from the original plan have been re-written in new outputs O10: Scientific publication quantifying nutrient and energy flows through the farm-forest system. JAN16
		O11: Scientific paper(s) on performance of fodder hedgerows, fodder trees, Taxus and nursery plantation for change in livelihood and food security (NAF lead, UniAdel contribute)	DEC 2017	

	EnLiFT Model	O12: Scientific paper quantifying factors determining an index of food security in the farm-forest system. (UniAdel lead/ ICRAF)	DEC 2015	O11: Scientific publication establishing the biophysical basis for sustainable agroforestry innovations APR18
		O13: Scientific publication establishing the biophysical basis for sustainable agroforestry innovations (ICRAF/UniAdel contribute)	DEC 2017	
	Women's Voices	O14: Paper on Women's perspective on agroforestry research for development (IUCN lead/UniAdel contribute)	DEC 2017	

Objective 2: To improve the functioning of community forestry systems to enhance equitable livelihoods and food security of CFUG members.

[A] Original Research Activity	Original & Completed Outputs	Planned & <i>Actual</i> Completion Date	Titles of output documents / comments
Activity 2.1: Analyse the status of community forestry systems and constraints to improving livelihoods and equitable benefit flows.	O19: Report of baseline information for developing pilot sites for use in Activity 2.5	[Y1:Q4] <i>Apr 2014</i>	Quantitative Baseline Household Survey Report Compiler: Deepak Tamang State of art in linking community forestry with food security in the Nepalese hills: Cases of Kavre and Lamjung districts Coordinator: Naya S Paudel,
Activity 2.2: Identify innovative community forestry institutions and management practices	O22: Report summarising the innovative options for improved community forestry management for presented by three altitudinal zones	Y1:Q4 <i>Apr 2014</i>	Community Forestry innovations Report Authors: NS Paudel, R Karki, G Paudel, D Khatri
Activity 2.3: Analyse markets and value-chains for products from community forests.	O26: Report with a short list of researchable market opportunities that can be incorporated into community forestry	[Y2:Q1] <i>Jul 2014</i> <i>May2015</i>	Prospects in Marketing of Timber and NTFPs from Community Forestry in Nepal: List of Researchable Community Forest Tree Species DD Tamang; SL Shrestha, BDS Dangol, DS Tamang Researchable List of Trees Species in Community Forestry: Final Timber and Fuel-Wood Tree Preference Ranking Author:DD Tamang
Activity 2.5: Design, implement and evaluate participatory community forestry action research trials	O31: Report outlining research designs and agreements made with up to 6 CFUGs (PC)	[Y2:Q2] <i>Oct 2014</i>	Silviculture demonstrations trial Authors: ED Cedamon, et al

[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
3] Inclusive community forest planning	Exploring link between regulatory framework and CF planning	O15: Process report on Inclusive community forest planning (FA leads, UNSW contributes)	DEC 2015	The following outputs from the original plan have been deleted or re-written in new outputs O20: Discussion paper outlining progressive and regressive links between a) critical community level dynamics and b) resource management, access and utilization APR15 (final draft still being delivered) O21: A scientific paper highlighting key patterns of livelihood outcomes from community forestry in the study sites APR16 O23: Workshop proceedings with recommendations for researchable forest management institution and
		O16: Process report including preliminary discussion paper on Inclusive community forest planning (FA leads, UNSW contributes)	DEC 2016	
		O17: Policy Brief: How regulatory framework and local level development governance shape CF planning in Nepal (FA leads, UNSW contributes)	DEC 2016	
		O18: Journal Paper: "Inclusive community forest planning: How regulatory framework and local level development governance shape CF planning in Nepal" (UNSW leads, FA contributes)	DEC 2017	
		O19: Process report on how local	DEC	

	Understanding interface between CF planning and local level planning	level planning accommodates CF management (FA leads, UNSW contributes)	2015	practices, and indications for research to lessen constraints on best practice forest management APR16
		O20: Process report including preliminary discussion paper on how local level planning accommodates CF management (FA leads, UNSW contributes)	DEC 2016	O24: A scientific paper identifying patterns of institutional innovations in community forestry systems
		O21: Policy Brief: on interface between CF planning and local level planning (FA leads, UNSW contributes)	DEC 2016	O27: Publication on institutional innovations in CF systems
		O22: Journal Paper: "CF innovation pathways for food security" (PC/FA leads, UNSW contributes)	DEC 2015	

[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
4] Active and Equitable Forest Management	Silviculture demonstration, monitoring and measurement	O23: Silvicultural demonstration plots established on 3 sites in Kavre and 3 sites in Lamjung with a series of extension activities (Uni Adel leads, FA and UNSW contributes)	DEC 2015	The following outputs from the original plan have been deleted or re-written in new outputs O33: Report of results of silviculture trials in community forests APR17
		O24: Technical paper from re-measurement of silviculture plots of Nepal Australia Forestry Project (Uni Adel leads, FA contributes)	DEC 2015	O34: 6 pilot sites with functioning models of community forestry practice for demonstration purposes APR17
		O25: Process report on silvicultural research report #1 (FA leads, Uni Adel contributes)	DEC 2015	O35: A resource book and other extension products for community forest user group (CFUGs) members on best practice forest management, commercial and institutional arrangements that increase the level and equitable access to benefits from community forests APR17
		O26: Process report on silvicultural research report #2 (FA leads, Uni Adel contributes)	DEC 2016	O36: A practitioner's guidebook to facilitate APR17
		O27: Policy discussion paper summarising key lessons from the active and equitable forest management action research highlighting key policy recommendations (Uni Adel leads, FA and UNSW contributes)	JUN 2017	O37 Scientific paper describing the refined adaptive action research approach to facilitate community forestry innovation including its challenges, APR18
		O28: Resource book for active and equitable community forest silviculture (FA leads, Uni Adel and UNSW contributes)	DEC 2017	O38: Scientific paper analyzing the links between contexts, processes, and outcomes of adaptive action research on food security and equitable livelihoods APR18
		O29: Journal paper: Silvicultural innovations for food security (Uni Adel leads) O30: Journal paper: Catalyzing active and equitable forest management: Practices and lessons (UNSW and UniAdel lead)	DEC 2017	

[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
5] Market responsive CF institutions	Private sector identification and participation	O31: Report of wood manufacturing companies searched, identified, approached and invited to participate in the planned participatory market appraisal; along with Memoranda of Understanding	JUN 2015	The following output from the original plan has been deleted in new outputs O32: Report on a survey of the early impact of the project in the Middle Hills JAN16
	Participatory market appraisal & business literacy workshops	O32: Report on PMAs and business literacy workshops held at 6 priority research sites	JUN 2016	
		O33: Research report analyzing timber market value chain, regulatory constraints opportunities and challenges facing the Chaubas sawmill (SN leads, FA, UNSW and UniAdel contributes)	DEC 2015	
		O34: Scientific paper based on the review of lessons on community-private sector partnership in natural product business from Chaubas and other relevant cases (UNSW leads, UniAdel, SN and FA contributes)	JUN 2016	
		O35: Short illustrated handbook on how to compile business plan or make your own CFUG business scheme.	DEC 2017	

Objective 3: To improve the productivity of, and equitable access to, underutilised and abandoned agricultural land

[A] Original Research Activity	Original & Completed Outputs	Planned & <i>Actual</i> Completion Date	Titles of output documents / comments
Activity 3.1: Conduct key informant survey at district and village levels to identify the status of abandoned and under-utilised land in the study districts and sites complimented by GIS based information	O39: Preliminary key informant survey supported by GIS-generated maps of land use, tenure and access of 6 study sites with a focus on under-utilised and abandoned agricultural land	[Y2:Q2] <i>Oct 2014</i>	Quantitative Baseline Household Survey Report Compiler: Deepak Tamang Qualitative Baseline report: Under Utilised Land Coordinator: Yam Malla
	O40: Report on Training opportunity for Institute of Forestry students	[Y2:Q2] <i>Dec 2014</i>	This activity stalled when we realised that there were not enough funds in pay period 4 to fund IOF student projects
Activity 3.2: Generate in-depth case studies (8 different household / farm level cases) of land abandonment and underutilization to understand how multiple drivers cause underutilization and abandonment	O41: Report describing the drivers and dynamics of land use in the Middle Hills	[Y1:Q4] <i>Jul 2014</i>	Partially fulfilled by Transforming land and livelihoods: Analysis of agriculture land abandonment in the mid hills of Nepal Authors: K.Paudel, S.Tamang, K.Shrestha, R.Shah

[B] Research sub-theme	Activity	New Outputs	DUE DATE	Comments
6] Under-Utilised Land	Sharing and communication	O36: A scientific paper explaining genesis of under-utilised agricultural land & Household case studies of land access, use and abandonment (UNSW leads, UniAdel and UUL team contributes)	DEC 2015	The following output from the original plan has been deleted in new outputs O43: A scientific paper explaining genesis of under-utilised agricultural land DEC 2014 O44: Report on policy and legal environment of land access with particular reference to the 6 study sites, along with the identification of opportunities for action research innovations APR17 O46: Policy brief with recommendations on how to encourage the productive use of under-utilised and abandoned land, and how the benefits of this use is equitably distributed APR17
		O37: Report on UUL based on previous findings to share with field researchers project research partners, district level line agencies	DEC 2015	
		O38: Report of District level workshops to disseminate the knowledge generated so far and use it as platform to discuss ways to identify management options	JUN 2016	
	Developing UUL typology and management options for productive and equitable use	O39: Report outlining specific action research threads along with agreements on planned land management and institutional experiments	DEC 2016	O47: A scientific paper explaining on how and why policy and institutional regimes produce (or do not produce) fallow land APR17 O40: Report on Training opportunity for Institute of Forestry students O41: Report describing the drivers and dynamics of land use in the Middle Hills O42: Household case studies of land access, use and abandonment O48: Workshop proceedings with a short-list of feasible options for under-utilised and abandoned land APR15 O49: Report outlining specific action research threads along with agreements on planned land management and institutional experiments APR15 O50: Report of the success of integrated land management options APR18 O51: A scientific paper analysing the context, process, and outcomes of the innovations APR17
		O40: Report on progress towards success of integrated land management options	JUN 2017	
		O41: Policy brief with recommendations on how to encourage the productive use of under-utilised and abandoned land, and how the benefits of this use is equitably distributed	DEC 2017	

Objective 4: To strengthen research-policy interface in community forestry and agroforestry governance for improving equitable livelihoods and food security

Research sub-theme	Activity	New Outputs	DUE DATE	Comments
7] Research-Policy Interface	Policy workshops, Data analysis Literature review Paper writing	O42: EPL synthesis report and Blog # 1	JUN 2015	
		O43: Discussion paper on EPL framework outlining steps, process, tools and strategies (UNSW Leads)		
		O44: Policy workshop report (PC leads)	DEC 2015	
		O45: Policy and regulatory analysis report on CF (PC leads)		
		O46: Policy workshop report (PC leads)	JUN 2016	
		O47: Scientific paper on EPL methodology/framework capturing learning from workshop reports (UNSW leads)		
		O48: Policy Workshop report (PC leads)	DEC 2016	
		O49: Policy and regulatory analysis report on CF (PC leads)		
		O50: Scientific Paper on land policy and food security (UNSW leads, PC and UniADEL contribute)		
		O51: Policy Workshop report and Blog #5 (PC)	JUN 2017	
O52: Overall scientific paper on science-policy interface (UNSW leads, PC contributes)	MAR 2018			

2.2 Achievement against outputs Y2 (June 1 2014- May 31, 2015)

Original Planned Output	Output Achievement (Title and File Name)	Reference No
O3: Scientific publication describing drivers to farming systems, farmers existing agroforestry practice, and perceptions about limitation to their livelihoods across 6 distinct agro-ecological settings	Adoption factors and futures of agroforestry in Mid-hill of Nepal (KPI Paper-Draft) Authors: E Cedamon, I Nuberg, B Pandit, K Shrestha	In process
O5: Policy discussion paper highlighting links between key governance variables and agroforestry contribution to livelihoods	Not delivered	
O8: Model of decision-making process in land use	Not delivered	
O12: Report of proposed participative research designs and value chain enhancements	M Joshi, SS Nuepane, BH Pandit (2014) , Agroforestry Nursery and Value Chain Training, Nov 24-28, 2014, Bhaktapur, EnLiFT Project Report	2015_01
O20: Discussion paper outlining progressive and regressive links between a) critical community level dynamics and b) resource management, access and utilisation	Conceptual note by Hemant Ojha (Nov 14, 2014) and draft report by Naya Paudel, Rahul Karki, Govinda Paudel et al Dec 24, 2014)	
O22: Report summarising the innovative options for improve community forestry management presented for three altitudinal zones	NS Paudel, R Karki, G Paudel, D Katri (2014) , Community Forestry Innovations Report, EnLiFT Project Report	2015_02
O26: Report with a shortlist of researchable market opportunities that can be incorporated into community forestry	D Tamang, E Cedamon, A Perdana (2015) , Report with a short list of researchable market opportunities that can be incorporated into community forestry, EnLiFT Project Report	2015_03
O27: Publication of institutional innovations in CF system	Draft paper being prepared by Rahul et al: forest contributions to food security	
O28: A research report detailing the policy, access, tenurial and institutional limitations of, and innovation opportunities in community forestry	Many products together constitute this output: <ul style="list-style-type: none"> - EPL framework and meeting outcomes notes (Ojha et al) - Partial contribution to Forest Sector Strategy Paper (An alternative framework for Nepal's Forest Sector Strategy By Hemant R Ojha September 4, 2014) - Forest Policy blog by Hemant Ojha in the national daily (http://www.ekantipur.com/2014/08/12/oped/future-of-forests/393459.html) - Journal paper 'Beyond the local community:' (mentioned below under 'other scientific contributions') 	
O31: Report outlining research design and agreements made with up to six CFUGs	E Cedamon, I Nuberg, H Ojha, K Shrestha (2014) , Conceptual and operational framework for silviculture demonstrations, EnLiFT Working Document	2015_04
O39: Preliminary key informant survey supported by GIS-generated maps of land use, tenure and access of 6 study sites with a focus on under-utilised and abandoned agricultural land	Not yet delivered	
O40: Report on Training Opportunity for IOF students	Not delivered	
O41: Report describing the drivers and dynamics of land use in the middle hill	K Paudel, YR Subedi, S Tamang, U Acharya (2014) , Report on drivers and dynamics of under-utilised lands in the middle hills of Nepal, EnLiFT Project Report Review report: Hemant R Ojha	2015_05
O42: Household case studies of land access, use and abandonment	Not delivered	
O43: A scientific paper explaining genesis of under-utilised agricultural land	Krishna Paudel, Sujata Tamang, and Krishna Shrestha (2014); Transforming land and livelihoods: Analysis of agricultural land abandonment in the mid-hills of Nepal. <i>Journal of Forest and Livelihood</i> . 12, 1, 11 – 19.	
O48: Workshop proceedings with a short-list of feasible options for under-utilised land and	Not delivered	
O49: Report outlining specific action research threads along with agreements on planned land management and institutional experiments	Not delivered	

3 Impacts

3.1 Scientific impacts

Table 1. List of scientific publications and paper presentations produced in this period

Science Output	Authors and Paper Title	Reference No.
Magazine article	AMATYA, SM., NUBERG, I., CEDAMON, E., SUBEDI, YR., PANDIT., B (in press), Enhancing Rural Lvelihood through Agroforestry Systems in Nepal, <i>Asia-Pacific Agroforestry News</i>	2015_06
Journal article	PANDIT, B., SHRESTHA, K. & BHATTARAI, S. 2014. Sustainable local livelihood through enhancing agroforestry systems in Nepal. <i>Journal of Forest and Livelihood</i> , 12, 47-63.	2015_07
Journal article	TAMANG S., PAUDEL, K. & SHRESTHA, K. K. 2014. Feminization of agriculture and its implications for food security in Nepal. <i>Journal of Forest and Livelihood</i> . 12, 1, 20-32.	
Journal article	PAUDEL, K., TAMANG, S., & SHRESTHA, K.K. 2014. Transforming land and livelihoods: Analysis of agricultural land abandonment in the mid-hills of Nepal. <i>Journal of Forest and Livelihood</i> . 12, 1, 11 – 19.	
Journal article	CEDAMON, E., NUBERG, I., ET AL. (in process), Adaptation factors and futures of agroforestry in Mid-hills of Nepal	2015_08
Journal article	OJHA, H., KHATRI, D., SHRESTHA, K.K. et al (forthcoming), Voice and Policy: A critical review of Nepal's proposed Forestry Sector Strategy, Society and Natural Resources.	
Journal article	KHATRI, D., SHRESTHA K.K., OJHA, H., PAUDEL N, & PAUDEL G (forthcoming), 'Forestry for food security: Opportunities and challenges in Nepalese community forestry, <i>Environmental Conservation</i> .	
Conference presentation	SHRESTHA, K. K. 2014. Reframing local institutions: Linking justice and sustainability for food security in Nepal Indigenous participation in natural resource planning. Institute of Australian Geographers/ New Zealand Geographical Society Conference, 30 June – 2 July 2014, Melbourne University, Melbourne.	
Conference presentation	OJHA, H. 2014 Mature forests, naïve policies: Institute of Australian Geographers/ New Zealand Geographical Society Conference, 30 June – 2 July 2014, Melbourne University, Melbourne.	
Conference Presentation	SHRESTHA, K.K., OJHA, H.R., KARKI, R., BHATTARAI, B., KARKI, R., NUBERG, I. & PAUDEL, N. S. 2014. The forest-food paradox: rethinking community forestry in Nepal. Conference on Agrifood XXI, Food, People, Planet, 24-26 Nov 2014, Sydney.	2015_09
Special Seminar	OJHA, H. Linking science to environmental policy making: Reflections from experiments in Nepal's natural resource governance	
Special Seminar	OJHA, H. The Forest-Food Paradox: Advancing Science-Policy Interface in Community Forestry in Nepal A Special Seminar Delivered at Institute of Economic Growth, Delhi University Enclave, India December 2, 2014	
Invited seminar	SHRESTHA, K.K. & FISHER, R.J. 2014, The Nepali diaspora and feminisation of agriculture, Invited presentation on THINKING SPACE seminar series, the University of Sydney, 18 September, 2014.	
Workshop Presentation	NS Paudel, R Karki, G Paudel, H Ohja, KK Shrestha (2014), Reframing the farm-forest interface: how can community forestry better address food security and livelihoods in Nepal?, 6 th National Community Forestry Workshop, 16-18June 2014, Kathmandu	2015_10
Workshop Presentation	GP P PAUDEL, NS PAUDEL, DB KHATRI (2014), Revenue and employment opportunities from timber management in Nepals community forests, 6 th National Community Forestry Workshop, 16-18June 2014, Kathmandu	2015_11
Workshop Presentation	BH PANDIT, KK SHRESTHA, HR OJHA, I NUBERG (2014), Why cannot local forestry do forestry business? Analysis of barriers in the value chain of private forestry products in Nepal, 6 th National Community Forestry Workshop, 16-18June 2014, Kathmandu	2015_12
Workshop Presentation	DD TAMANG; SL SHRESTHA, BDS DANGOL, DS TAMANG (2014), Prospects in Marketing of Timber and Non-timber Forest Products from Community Forestry in Nepal, 6 th National Community Forestry Workshop, 16-18June 2014, Kathmandu	2015_06

Other relevant scientific contributions by project team in collaboration with scientists outside of EnLiFT:

- **Ojha, H.**, contributions to **FORESTS, TREES AND LANDSCAPES FOR FOOD SECURITY AND NUTRITION. A GLOBAL ASSESSMENT REPORT** (By Hemant R Ojha) (<http://www.iufro.org/science/gfep/forests-and-food-security-panel/report/>)
- **Ojha, H.**, Beyond the 'local community': the evolution of multi-scale politics in Nepal's community forestry regimes. *International Forestry Review*, 2014. 16(3): p. 339-353.
- **Prativa Sapkota, Hemant R. Ojha and Rodney J. Keenan** (under revision). Do community institutions enhance the adaptive capacity to climate change of marginalized sectors of society? An analysis of Community Forestry User Group in the hills of Nepal, *World Development*

3.2 Capacity impacts

A number of capacity-building activities had been undertaken between June 2014 and May 2015 in formal and informal learning situations. In July 2014, a scientific-writing workshop has organised by EnLiFT to strengthen publication skills of emerging researchers through mentoring of senior researchers. Several journal manuscripts had been reviewed by peers and suggestions for improvement were provided to authors during the workshop. Some of these papers had already been published or are under review in Journals (the list of papers is provided in Table 1). More informal and targeted writing meetings have also been held (such as the one held on May 3 at ForestAction Nepal, in which three emerging researchers are leading three papers).

A series of in-house coaching on systems modelling has been carried by the EnLiFT Modelling team to increase capacity of research from Forest Action Nepal and Nepal Agroforestry Foundation on systems modelling using Stella software. Hands-on and field-based activities were carried out by the Silviculture Team to share skills and knowledge on silviculture management as well as conducting extension activities on Forest Management. Among other skills, skills on lay-outing silviculture plots, management and analysis of data, collecting inventory data for leaf area index determination through ordinary digital photographs were refreshed and or shared among team members including few FECOFUN and Ilaka Forest Officer.

Field days (extension activities) were held in Chaubas, Dhunkarka, Mithinkot, and Jita-Taksar to demonstrate forest inventory, silviculture management and forest management operations. These were attended by a total of approximately 100 members of forest user groups. The field days were held as joint activities of the District Forest Office and Ilaka Forest Office and EnLiFT project. A five-day training on scientific forest management was organised in Chaubas in collaboration with Dept of Forest and Ilaka Forest Officers. Forestry staff and CFUG leaders were trained on the benefits of better silvicultural management and on specific skills to operate better silviculture within existing forest rules, laws and regulations. The field days also provided the Ilaka Forest Officers opportunities to refreshed forest inventory techniques with particular applications for improving silviculture. Joint field visits by international and national research team members have also enhanced mutual learning and capacity of building of emerging Nepalese researchers. A two-day district level capacity building workshop was organised for the project staff, LRPs, LRGS and DFO staff in both districts in March and April this year.

In addition to on-ground, field based capacity building, the EnLiFT Project is very fortunate in successfully getting a second John Allwright Fellow, Ms. Sujata Tamang who is now at the University of New South Wales undertaking her PhD studies.

3.3 Community impacts

EnLiFT initiated several action research activities at the six research sites from June 2014 to May 2015 increasing the level of community engagement. Details of these community engagements are presented in Table 2 which include the following:

- Participatory selection workshops on agroforestry and community forestry commodities
- Hands-on training on nursery establishment, agroforestry seedling production and improve fodder production system through intensification of fodder production on terrace risers
- Participatory action research and reflection workshops
- Action research on community forestry operational plan revisions
- Community forest silviculture field days
- Workshops with the Mill ad-hoc committee on the revival of Chaubas mill
- Focus group discussions, case study interviews and participatory mapping of under-utilised lands
- Case study interviews on agroforestry and land use practices for modelling food security and livelihoods
- Inclusion, cohesion and discussion with district level government services agencies
- District stakeholder meetings to update the field level research progress and seek any inputs for improve local level research practices
- Policy workshop via the EnLiFT Policy Lab

The various community engagements outlined above have created the following impacts:

- Provided the local research group (LRG) members new skills for agroforestry farm management through seedling production, intensified planting of fodder and forage crops and high-value vegetable such as cucumber, bitter melon and asparagus. The action research on agroforestry had the LRG immediate outcome of their participation in the project through harvests of vegetable crops addressing somehow 'development' expectations of project cooperators.
- Assistance of the EnLiFT Project provided to up to four CFUGs on revisions of their operational plans had opened opportunities to CFUG members better and fairer access to wider community.
- Created space for EnLiFT Project Researchers, CFUGs, LRGS and FECUFUN reflections necessary for improving project impacts particularly improving direct benefits flows to local communities, e.g. increased access to community forests and increase income from agroforestry produce
- Created a conducive and friendly discussion with district level government agencies to communicate initial research results particularly issues needing urgent interventions.
- Enhanced appreciation by policy makers on the value and usefulness of research and ground level evidence in making policy decisions (e.g willingness to actively participate in EPL events)
- Enhanced willingness of the policy makers to cooperate with research teams in identifying policy problems and developing solutions (e.g joint visit of senior officials and research teams)

Table 2. List of community visits, purpose, community meetings attended, institutions of community visitors conducted between June 2014 and May 2015

Date of Visit	Place Visited	Purpose of Visit	Institutional Affiliation of Visitors
23-30 June 2014	All research sites except Chaubas	To visit AF field interventions and conduct consultations with priority CFUGs on silviculture option through a participatory silviculture options scoring and ranking	UoA, CF and AF team
28-31 July 2014	Jita Taksar and Dhamilikuwa	To establish intensified fodder hedgerow demonstration on Rishi Ram Puri farm – Jita Taksar; and Reconnaissance survey of potential farms for fodder lopping trial	UoA, AF team
6 – 17 July	Lamjung sites	Community forestry planning and institutional analysis	UNSW, Nepal CF team
August, 2014	Both sites	Kavre sites for assessing institutions and interview community forestry groups	UNSW Nepal CF team
6 August 2014	Mithinkot	Reconnaissance survey of potential farms for fodder lopping trial	UoA, AF Team
18-20 August 2014	Kathmandu	LRP/LRG Training	AF TEam
25-26 August 2014	Dhulikel and Besisahar	Consultation with DFOs and Ilaka Forest Officers in Kavre and Lamjung Districts on silviculture demonstrations	UoA, CF Team
8-11 September 2014	Dhunkarka	Reconnaissance and discussions with members of Kalopani CFUG	CF Team
15-19 September 2014	Jita-Taksar	Consultation with Lampata CFUG on OP revision and UUL Case Studies	CF Team and AF Team
16 September 2014	Chaubas	Chaubas Bhumlu Sawmill Consultation meeting	CF Team
9 October 2014	Dhulikhel-DFO Office	Bhumlu Sawmill Multi-stake holder meeting	CF Team, DFO, Sawmill reps, FECOFUN and MEDEP Rep
13-14 October 2014	Jita-taksar	Lopping trial demonstration	AF Team
24-28 November 2014	Bhaktapur	Agroforestry Nursery and Value Chain Training at Bode Saraswotikhle	AF Team
23 November 2014	Jita-Taksar	Lampata CFUG general assembly	CF Team and DFO
24 November 2014	Dhamilikuwa	Aaanpchaaur CFUG general assembly	CF Team and DFO
28 December	Chaubas	DG Visit to Chaubas	EnLIFT, DG, DFO
12-15 January 2015	3 sites in Lamjung	Mid Term Review Visit	MTR Team, UoA, UNSW, CF Team, AF Team, UUL Team,
18 January 2015	Dhunkara	UoA visit to Kalopani forest to reconnaissance sites for silviculture demonstration	UoA, CF Team
26-27 January, 2015	Chaubas	Interaction with Saw mill committee, CFUGs users and observation of forestry and agroforestry	UNSW, UoA, CF Nepal team
27 January 2015	Chaubas	MTR Team, Australian Ambassador, MFSC, DFO, FECOCUN visit	
1 February 2015	Chaubas	Fagar Khola CFUG Silviculture field day	UoA and CF team and MRI Team, Chaubas Ilaka Forest Office
3-4 February	Dhamilikuwa	Assess equity issues and options	UNSW, Lamjung field team
4 February	Lamjung	Meeting with DFO	UNSW, Lamjung field team, CF team at ForestAction

16 February 2015	Chaubas	Chapani CFUG Silviculture Field Day	UoA and CF team and MRI Team, Chaiubas Ilaka Forest Office
10 March 2015	Dhunkarka	Kalopani CFUG Silviculture Field Day	UoA and CF team and MRI Team, Khopasi Ilaka Forest Office
18 March 2015	Jita-taksar	Lampata CFUG Silviculture Field Day	UoA and CF team and MRI Team, Rhamga Ilaka Forest Office
23 March 2015	Mithinkot	SaPaRuPa Silviculture Field Day	UoA and CF team and MRI Team, Narayanstahn Ilaka Forest Office
16 May 2015	Dhunkaraka	High-level MFSC officials visits	CF Team, DFO, MFSC

3.4 Communication and dissemination activities

As EnLiFT had entered into its second year of operation, guidance to optimise policy impacts became a concern for the project. To address this, EnLiFT created a Project Advisory Committee (PAC) comprised of senior Ministry of Forest Officials. The directive for this entity is described in Reference No 2015_13. It has led to the meeting of PAC which provided overall guidance, assurance of research uptake and support in getting DFO staff involved in project activities.

Following the decision of Ministry of Forest and Soil Conservation, a district coordinating committee has also been set-up in each of the two districts to assist the PAC and the EnLiFT Project to ensure project activities are relevant to district level forestry and agroforestry stakeholders. Such forums have also been useful in disseminating the outputs from EnLiFT to relevant, civil society and private sector groups. An example of this is collaboration of EnLiFT and the Community Forestry Division in promoting 'Scientific Forest Management'. Similarly, FECOFUN and DFO representatives have been working closely with ENLiFT team despite their differences on some forest governance matters. A clearer plan of engagement of FECOFUN in the extension activities in institutionalising promising innovations had also been developed during this reporting period.

Basecamp (Figure 1) continued as primary platform for internal project communication. Since the mid-term review held on January 2015, involvement of DFO, FECOFUN and Community Forestry Division Personnel on basecamp discussion has been seen as essential for the project operation and management. However, we have also realised the limits of basecamp to handle matters that require focussed discussions among a few key researchers, and hence skype and email communications have also continued when needed. EnLiFT executive committee is meeting regularly to discuss project management and planning issues. Names of key persons and details required for their inclusion on basecamp are now being gathered and the planned training on using basecamp is now delayed due to interruption from the earthquake.

Discussion on basecamp is documented on Table 3 where the number of discussion threads and files supporting those discussions are compared for 2013-2014 and 2014-2015 periods. As of 18th May, 2015, basecamp has recorded increased of discussion threads by 63% from 282 reported last year to 460 discussion threads this year. It is important to note that as a result of changes on the project structure following the project mid-term review, new projects were introduced on basecamp representing the new project teams and projects deemed redundant were archived (the number of discussion threads does not necessarily reflect the quality of research outcomes, and yet it is indicative of the range of discussions taking place in the basecamp). To date, Basecamp's Library section has 105 articles uploaded to share across multiple topics of research.

Table 3 Use of Basecamp up to 25 May 2014

Basecamp project	Number of discussion threads	Number of files uploaded
2013-2014		
AF Research Group	26	36
Baseline Surveys	40	269
Biophysical discussions	15	44
Blue sky ideas	7	2
Book projects	4	3
Communication and media	6	4
Community Forestry research Group	19	59
Executive discussion	2	1
Field Journal	9	9
Field Trips	13	26
GIS	7	7
Institution, access and equity	4	0
IUCN Secretariat	13	37
Library	18	92
Market analysis work	10	19
Policy, tenure and regulation	8	6
Project Central	40	74
Research Leaders Forum	12	15
Research Sites	23	53
Under-utilised land	6	37
<i>Total</i>	<i>282</i>	<i>793</i>
2014-2015		
Active and equitable forest management	4	11
Agroforestry research group	43	55
Blue sky ideas	9	6
Book projects	7	21
Communication and Media	6	4
Community forestry research group	40	123
Executive discussion	17	27
Explore basecamp!	10	17
Field journal	14	18
Impact of agroforestry intervention team	6	32
Inclusive community forestry planning team	2	28
IUCN secretariat	14	42
Library	30	104
Market-orientated agroforestry interventions team	5	5
Market-responsive community forest institutions team	2	35
Project central	67	180
Research students	1	1
Research-policy interface team	6	15
Under-utilised land team	12	58
Project archived After MTR		
Baseline survey	47	335
Biophysical model	30	73
Field trips	15	30
Geographic information systems	9	12
Institutions, access and equity	7	1
Market analysis work	16	66
Policy, tenure and regulation	18	19
Research sites	23	53
<i>Total</i>	<i>460</i>	<i>1371</i>

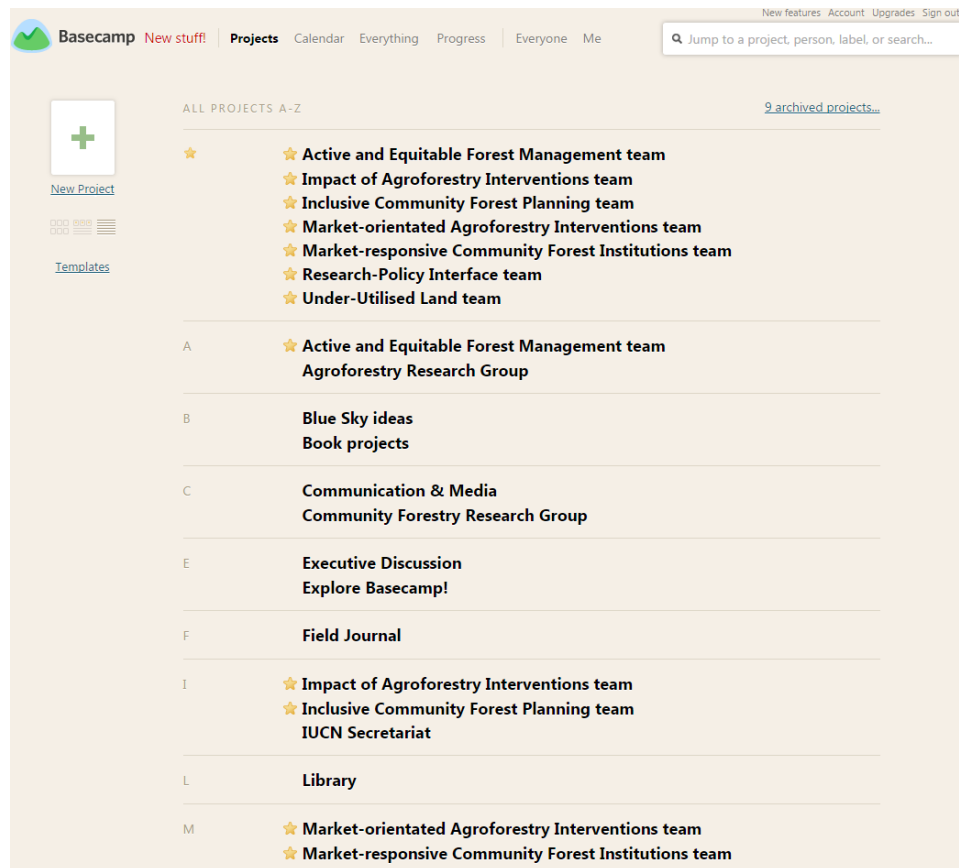


Figure 1 Frontpage of Basecamp

4 Training activities

4.1 Field training activities

4.1.1 Agroforestry training

Training on value chain analysis and nursery techniques of selected agroforestry species was conducted for 25 Local Resource Persons (LRPs) (12 from Kavre & 13 from Lamjung district) on Nov 24 – 28, 2014. Of the five days training, theory part was facilitated at Bode (Agriculture Development Bank premises) and practical sessions were held at NAF demonstration center, Saraswotikhel, Bhaktapur. The main purpose of this innovative work was not only helping to generate income and employment opportunities to participating farmers through agroforestry but also support to reduce pressure on community forests for fodder and forage, and fuel wood as well as to improve food security of farmers. EnLiFT aims at increased production of farmland through integrating agroforestry and community forest products and strengthening partnership for sustainable management and utilization of these resources.

Ten products (Table 4) were identified as priority and potential products in six EnLiFT action research sites through series of discussions with local farmers and LRPs both in the field and in Kathmandu. On top of these products, dairy and meat products of livestock from private lands and Sal (*Shorea robusta*), *Alnus nepalensis* and Pine mostly from CF were identified as potential products to generate income and employment, and food security of mid hill farmers.

Table 4: Species identified for further promotion in PAR sites

District	Action research site	Identified products
Kavre Palanchok	Chaubas	Cardamon, Mulberry, Chiraito
	Dhungkharka Methinkot	Taxus, Chiraito Ginger, Round Chilli, Lapsi
Lamjung	Dhamilikuwa	Banana, Black Pepper
	Jita Taxar Nalma	Banana, Cinnamon Cardomon, Broom grass

During the whole training, the major focus was laid on promotion of fodder trees and grasses using vegetative method of propagation with the objective of increasing value chain of milk and meat products. The main grass and forage species include broom grass (*Thysanolaena maxima*), forage peanut (*Arachis pinotoi*), mott napier (*Pennisetum purpureum*), setaria (*Seteria splendid*), and mulato (*Brachiaria brizantha x B. ruziziensis*). In addition to these species and products, the value chains of other 10 commodity species were discussed and practical sessions (nursery and cultivation) were held for each of the species selected at Saraswotikhel NAF demonstration sites.

4.1.2 Community forestry training

Hands-on training on silviculture management in of community forests were made in four research sites – Chaubas, Dhunkarka, Mithinkot and Jita-Taksar between February and March 2015. The training covers measurement of diameter-at-breast height (DBH) and selection of residual trees based on stocking (number of trees by diameter classes), tree form, vigour and spacing. One hundred individuals comprised of men and women from five CFUGs in the mentioned sites attended the training. The training was conducted as part of the larger silviculture demonstration work. Forest Officers and Forest Guards from Ilaka

Forest Offices having jurisdictions of the research sites too joined the training. Photographs from the field days are provided as Figure 2.



A] Members of Chapani CFUG-Chaubas measuring DBH to select residual trees



B] Govinda Paudel-EnLiFT Research (Forest Action Nepal) explaining the selection silviculture to members of Kalopani CFUG



Ms. Somaya Nepali- a Dalit woman member of Lampat CFUG (Jita Taksar) measuring DBH of Sal trees on Lampata Community Forest during a Silviculture Field Day Figures 2a,b&c. Selected photographs of the silviculture field days conducted in three research sites (Photos by E Cedamon)

4.2 Australian university students

There are three University of Adelaide students with research projects aligned with the EnLiFT project. Manoj Badu (a Nepali forester who is now Australian permanent resident) is enrolled as a PhD candidate. His project is “Hydrological perspectives of community forestry: Role of community forests in influencing the quantity and quality of water in the mid-hills of Nepal”. Don Gilmour has is engaged as an external co-supervisor. Manoj’s field sites are in Panauti and allied with former colleagues at Kathmandu University. He was in the field during the recent earthquakes, and fortunately neither he nor his field equipment was affected.

Lila Puri, from Institute of Forestry, is a John Allwright Fellow studying “Geospatial analysis of effective community forest management in Nepal”. He has completed his internal major review process and will begin fieldwork in Lamjung district from June 2015-February 2016. Hiroshi Endo (a Japanese student) is enrolled in a research masters program with his project “Nutrient and monetary values of FYM (Farm yard manure) derived from fodder species in agroforestry systems of Middle-Hills of Nepal”. This work is associated with modelling the nutrient flow from fodder to farmyard manure and will feed into the larger ENLIFT model. Endo has worked on JICA projects in Nepal for 3 years and speaks Nepali. Nuberg is also looking for students to undertake honours research projects aligned with the EnLiFT project. The operating costs of these student projects are all funded from a research account independent of the EnLiFT budget.

Two honours students have been identified to work on Nepal-related projects. Chris Di Ieso will begin August 2015 and Heather Feetham likely to begin February 2016.

There are several students at the University of New South Wales with research projects aligned with the EnLiFT project. Below is the list of student engagement at UNSW with respect to the project activities.

- Sujata Tamang, a John Allwright Fellow, is actively developing her research in the areas of feminisation of local communities in the Nepal’s middle hills. She is taking research related courses, and reviewing the related literature around agrarian development and feminsation.
- Anisha Pradhan is working on inclusion in climate change adaptation in Nepal under Krishna Shrestha’s supervision. She has received comments and reviews of her chapters by Hemant Ojha.
- Prativa Sapkota is advancing her PhD with co-supervision from Hemant Ojha and has a paper under revision at World Development.
- A PhD candidate Keshab Goutam of Australian National University (ANU) is benefitting from EnLiFT project insights through Hemant Ojha who is in his PhD advisory panel at ANU. He is working on forest governance in Nepal.
- Abbie White who has studied local livelihood change research in Nepal, attended the Enlift research trip in Lamjung, but she has since been sick and postponed her studies.
- Ismawaty Nur has started working on livelihoods, environment and public policy research with case study in Indonesia. She has been benefitted from the research-policy interface insights we shared from the Nepal work.
- Donna Yoo is working on local governance of green growth which includes issues of participation, capability and planning issues in Korea. She has benefitted from insights from Enlift’s policy lab framework and analysis.
- Honours students are taking up the idea of livelihoods issues in the context of disaster response in Nepal such as Zoe Hiling who is traveling to Nepal soon. Naya Sharma was contacted in relation to support her and there is some ongoing communication. Hemant has organized local host and a formal contact with

government organization related to watershed management.

- Several of the papers on themes and issues directly reflecting EnLIFT project scope and co-authored by Hemant Ojha and Krishna Shrestha are being used for Undergraduate and Masters level courses at School of Social Sciences.
- Three prospective students from Nepal have applied for Australia Awards with some elements of food security and livelihood dimensions in their proposed research
- One student from Nepal is applying endeavour scholarship who is interested in research in enhancing justice in Lamjung's agroforestry systems.

5 Variations to future activities

For the past two years the original project structure of objectives, activities and outputs was felt to be too ambitious for the resources available. Also we have learnt a lot in this time, and following an action research approach it was appropriate for us to undertake a major reflection of the project structure. As a response to the early Mid-Term Review in January 2015 some significant changes were made to project structure.

The three project objectives for the Agroforestry, Community Forestry and Under-Utilised Land research themes remain unchanged, and research policy interface has been added as a cross-cutting objective. However, the structure of research activities and outputs (see section 2) resulted in the development of 7 sub-themes that focus the project on a relevant and deliverable target. The 7 new sub-themes and their links to the original research activities are represented in Figure 3. Originally there were 14 activities. Three of the original research activities (1.1, 2.1 and 3.1) have been completed as part of the baseline surveys. Original activity 3.4 concerning the implementation of innovative options on under-Utilised Land has been deleted. The remaining 10 of the original activities have been re-written in the new 7 sub-themes.

Another significant change in project management is the decision to limit formal Action Research Planning Meetings (ARPM) to a yearly, rather than bi-annual, cycle. These formal project-wide ARPMs will now only be held in January. The former mid-year meetings will be replaced by informal consultations and joint task team meetings between international and national researchers. These June-July meetings will largely concern logistic issues to match budget with work plans (among the leaders) and joint field work and analysis as per need. This change was considered necessary because the formal ARPMs were very costly and time consuming.

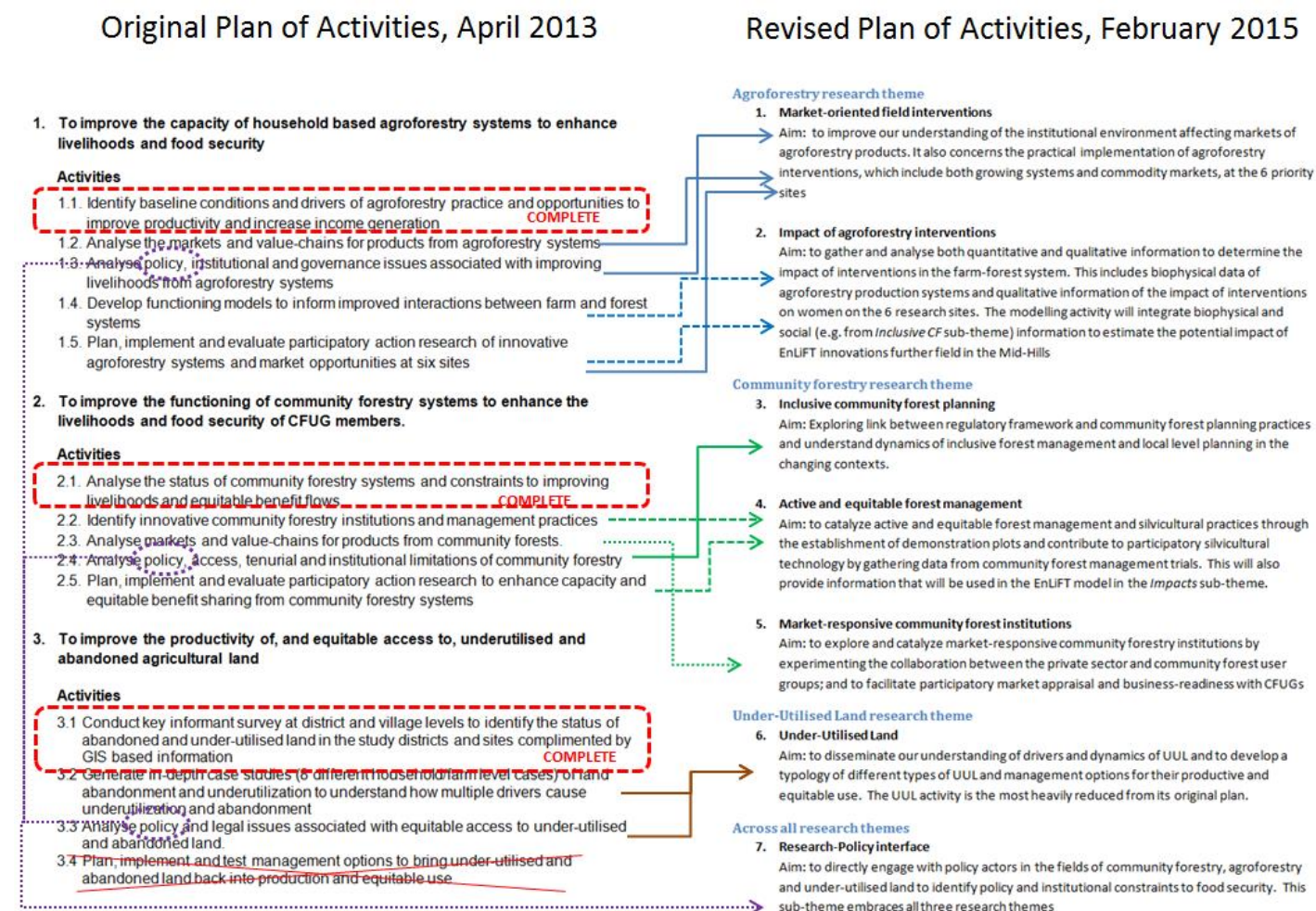


Figure 3 Change of 14 research activities to 7 sub-themes following Mid-Term Review

6 Variations to personnel

Table 5 lists all active personnel and changes over the past reporting period. The significant changes have been:

- Krishna Paudel has stepped down as Action Research Coordinator to devote more time for his senior role in Forest Action
- Ramji Neupane has taken job as National Coordinator for MicroEnterprise Development Program (MEDEP).
- Sujata Tamang left FAN taking a JAF to study at University of NSW
- Lila Puri on leave from IOF taking a JAF to study at University of Adelaide
- Swoyambhu Man Amatya is now director of NAF, and left SEARCH
- Imminent retirement of Yam Malla from IUCN; however likely to remain in project as a consultant on UUL

Table 5 Key project personnel and responsibilities at May 2015

Researcher	Organisation	Responsibilities
Australian researchers		
Ian Nuberg	University of Adelaide	Project Co-leader, particularly responsible for quantitative research methods
Krishna K Shrestha	University of New South Wales	Project Co-leader, particularly responsible for social, institutional and policy, and qualitative research methods
Edwin Cedamon	University of Adelaide	Quantitative research and project coordination
Hemant Ojha (half time)	University of New South Wales	Qualitative research, social science & policy analysis
International collaborators		
Aulia Perdana	ICRAF Bogor	Market research
Betha Lusiana	ICRAF Bogor	Modelling
Rachmat Mulia	ICRAF Bogor	Modelling
Nepali researchers		
Naya S Paudel	Forest Action Nepal	In-country project leader; Community Forestry Research Group Leader; Action research coordinator
Bishnu H Pandit	Nepal Agroforestry Foundation	Agroforestry Research Group Leader; Market Activity Coordinator
Binod Heyojoo	Institute of Forestry	GIS and UUL
Deepak Tamang	Search Nepal	CF markets
Ram Chhetri	Tribhuvan University	UUL case studies
Swoyambhu M Amatya	Search Nepal / NAF	Policy and regulations coordinator ; agroforestry
Rachhya Shah	IUCN	Secretariat ; Womens Voice
Yubaraj Subedi	Forest Action Nepal	Agroforestry model
Suman Bhattacharai	Nepal Agroforestry Foundation	Womens voice activity
departing		
Krishna Paudel	Stepping down from Action Research Coordinator role	
Ramji Neupane	Although still a member of NAF, time is now devoted to MEDEP	
Sujata Tamang	Leaving FAN to study at UniNSW	
Lila Puri	On leave from IOF to study at UniAdelaide	
Deepak Gautam	Although still a member of NAF, time is now devoted to PhD study at Tribhuvan Uni	
Yam Malla	Retiring from IUCN in September 2015, likely to remain as UUL consultant	
Navin Yadav	Leaving IOF to undertake postgraduate study in GIS at Dehradun, India	
arriving		
Murari Joshi	Nepal Agroforestry Foundation	Agroforestry interventions
Bishow Dhakal	Nepal Agroforestry Foundation	Agroforestry interventions
Govinda Paudel	Forest Action Nepal	Silviculture and community forest institutions
Rahul Karki	Forest Action Nepal	Forest policy
Udeep Regmi	Forest Action Nepal	EnLiFT Policy Lab
Madan Basyal	Forest Action Nepal	Field coordination

7 Problems and opportunities

EnLiFT has not experienced major problems in relation to management and operation. The most recent earthquakes have emerged as a major challenge, but are also creating some opportunities in a rather perverse way. Another challenge is that a few senior researchers parted away from the project, which could affect institutional memory and learning. We are facing the challenge to improve analytical capacity of research teams so that they can publicise their work in high impact journals and can also communicate their research through media blogs and policy seminars. Managing budget allocations has become easier but there is still a mismatch of team expectations with annual allocations, which will be addressed better through communicating ceilings across major activity lines and also through following annual budgeting cycle rather than biannual. There is still a higher level of development expectation of local communities from the project, though it has been managed well over the past two years. Likewise, the project is now facing several opportunities: willingness to improve regulatory practices in community forestry in the context of post-earthquake rehabilitation; generation of significant amount of qualitative and quantitative data from the field; active rolling out of action research activities in the field demonstrating the value of research to communities.

7.1 Edited report from Rahul Karki, originally posted on Basecamp 12 May

On 25 April 2015 an earthquake of magnitude 7.9 Richter scale hit Nepal that has caused wide devastation across the country. This was followed by hundreds of after shocks, but also another significant earthquake on 12 May. The estimate cited on Wikipedia is that 8,200 people were killed and 21,500 injured.

Though more than a dozen districts have had impact of the earthquake, in particular ten districts viz. Gorkha, Sindhupalchowk, Nuwakot, Kathmandu, Lalitpur, Bhaktapur, Dolakha, Kavre, Ramechhap, Rasuwa and Dhading witnessed more devastation than others. In this context, some of the sites in Kavre and Lamjung in particular that EnLiFT is working have been affected. Though very few human casualties have been reported in the project sites, several houses have been destroyed either completely or partially to the extent that they are not inhabitable. Some of the user group leaders, who are actually working closely in various capacities in the EnLiFT project have been living in temporary shelter and are in dire need of support for reconstruction of their houses.

Based on the preliminary assessment on the devastation in six sites, Chaubas and Dhungharkha are most affected followed by Mithinkot in Kavre. Dozens of houses including those of LRPs and CFUG leaders have been destroyed, livestock dead and small number of human casualty. While Lamjung has relatively less impact, almost one-third houses in Dhamilikuwa and 50 houses in Trandrang Taxar are either partially or completely damaged. There is however no report on any damage or human casualties in Nalma.

Forest Action is still carrying out a detailed assessment of the overall damage caused by the earthquake in all the research sites, though precise figure may be difficult to obtain due to the fact that the scale of damage is massive and can be time consuming.

In this context, a meeting among the EnLiFT Nepal team leaders was convened at IUCN on 11 May, 2015 which was primarily aimed at discussing on the post-earthquake planning of

the project activities¹. As the whole country and its people are involved in the rescue, there have been numerous responses to support the victims of the earthquake that took place on the 25 April. As rescue operation is primarily led by the Nepal government with support from international agencies and government, there are non-governmental organizations working towards providing relief to the victims. In this scenario, some of the partners of the EnLiFT such as IUCN, ForestAction, NAF, Search Nepal among others, have been providing small relief, focusing in their project sites. Despite the fact that the support was targeted to the most affected individuals, it is far less as compared to the level of devastation. The level of devastation and loss of life and property is unimaginable in our project site Kavre and intended satellite site Sindhupalchowk.

In this scenario, there is an opportunity for all of us to express our solidarity towards helping the victims in the EnLiFT project sites. For this, every individual member of the EnLiFT project is requested to contribute or help generate relief fund that will be mobilized to support the victims of the earthquake in the project sites. IUCN has opened a special bank account for the purpose from which all the money collected from EnLiFT Funds will be mobilised to the affected project sites. Actual material will be decided based on the volume of the funds..

- In the current context economic loss, psychological trauma, social chaos and physical difficulty (many people are taking shelter outside of their houses) it will not be appropriate to carry out routine field level activities. The meeting therefore decided to halt all field level activities until end of June. We will assess the situation towards to end June and decide on the continuation of the activities. However, we will be in field for relevant work including relief and rehabilitation work in collaboration with other agencies. In the mean time project team members will continue to work on the write up, analysis and written deliverables during this period.
- In the post-earthquake scenario, most of the rescue operation, at least in the EnLiFT project sites, is over and most of the effort is being laid on relief of the victims. Subsequently, rehabilitation and reconstruction of houses and infrastructures destroyed will be of utmost priority in the country. Among those, timber and other forest products for example bamboo will be highly demanded. In response to the crisis, it will be critical to address some of the policy issues to ensure smooth supply of timber and forest products needed for reconstruction. As an initiative, EnLiFT project will closely engage with the Department of Forest and FECOFUN in the policy process towards increasing timber supply for the reconstruction work - e.g. relaxing timber harvesting and transportation/ demonstration of low cost housing etc. This will initially focus in worst affected sites of the EnLiFT project in Kavre and Lamjung.

7.2 Earthquake response strategy from EnLiFT executive team

The EnLiFT executive team subsequently met and agreed on the following general principles and interim strategy.

As ACIAR does not have a mandate to cover disaster aid, it is recognised that EnLiFT is not in a position to divert funds to directly assist in aid and reconstruction. However, following the principles of adaptive research the project will shift the focus of its activities to

¹ Among the present were Mr Krishna P Pokhrel (chief of community forestry division), Yam Malla, Swoyambhu M Amatya, Ram Chhetri, Racchya Shah, Rajendra Khanal, Rahul Karki and Naya S Paudel. The following points highlight the discussions and the decisions made during the meeting.

address the radically different situation on the ground. Any activity that is beyond the scope of the current list of outputs (Section 2) will still be conducted to yield a research outcome. The earthquakes have, rather perversely, opened up some opportunities for the project; not the least being the increased demand for timber and the readiness of bureaucracy to allow its harvest. Not only does this create a better climate for expansion and focus of silvicultural trials but is a good opportunity for developing better institutional mechanisms to facilitate simpler and more equitable access to community forest resources.

Along with additional data from the field, the EnLiFT leadership will meet at the end of June 2015 to develop details of the interim strategy. Some initial concepts emerging, but not confirmed, are:

- Engaging with policy makers to increase timber supply from community forestry. This includes sensitizing policy makers to increase the supply of timber from CF on a sustainable basis
- Contributing to rebuilding community forest infrastructure: this action is an opportunity to have a guiding hand in the new institutional arrangements around the infrastructure
- Training of local people in resilience building with particular reference to overall livelihoods security perspective, and in particular, food security perspective. This training would include our AF & CF innovations and appropriately reported in New Outputs 2,4,8, 28 and 35
- Supplementary baseline study of disaster effects on food security in the mountain contexts of Nepal. This will contribute to adapt analytical framework of forest-agriculture-food security in the context of disaster risks. This data could also be used in the EnLiFT modelling activity creating some disaster scenarios.
- Extending learnings from project sites into satellite districts badly affected by earthquake. For example Chaubas lessons can be taken to Sindhupalchok through district holder meetings so that timber flow increases from mature Pine forests of Sindhu. In particular there is an opportunity to expand silvicultural trials. Similarly, Lamjung lessons can be taken into Gorkha district that was near the epicenter, rather than Kaski which was not so affected by the earthquake.

8 Budget

The allocation of funds across the Nepal partners still presents problems. In the previous Annual Report we had made progress by:

- an output-based pay arrangement;
- a system of research group work plans where timing and resourcing of specific activities to achieve scheduled outputs are mapped out as part of the action research cycle;
- designation of delivery researchers for each activity and the key person responsible for delivering each output from that activity;
- negotiating a 4-tiered pay rate scale to reflect the seniority and responsibility of each individual;
- negotiating overhead costs for NGO partners; and
- an acquittal system to account for over/under spends in pay periods.

As a result we have seen significant changes in the allocation of funds to Nepali partners compared with the original allocations in the project proposal. Figure 4 illustrates these changes. All organisations were paid as per the original budget for Pay Periods 1 and 2 (ie 2013). After that the allocations to the main Nepal partners in pay periods 3 and 4 (2014) diverged greatly from the original budget. These are explained by:

- the nomination of Forest Action to be the leader and coordinating organization;
- the transfer of funds that were originally held by IUCN to other Nepal partners for extra salary, overhead and field operating costs.

The allocation to the two universities, ICRAF, Community Forest Division and FECOFUN have followed the original agreed allocations. The figure does not show the transfer of ~ \$4,000 from ICRAF to NAF to contribute to operating costs of modelling and market activity. The salient feature of this figure is the extreme variability of allocations to the main Nepal organisations delivering research. This has been difficult for their internal planning to say the least. It has also called upon their flexibility and patience, which they have duly delivered.

The process of resource allocation between Nepal partners was determined in Pay Periods 3, 4, and 5 by a process of creating research-group work plans with numbers of person days and estimates of operating costs. Figure 4 also shows the estimate allocation to achieve the work plans designed at Action Research Planning Meeting #3 (January 2015). The total estimate was \$74,146 over that which was available for pay period 5 (\$111,872). So we had to impose a 40% contraction in the allocation. This was not evenly spread across the partners. The allocations to CFD and FECOFUN were maintained as per the original agreements. The allocations to FAN, NAF, IUCN, SEARCH and IOF were significantly contracted from that required to deliver the work plans for pay period 5. The project will closely monitor the extent to which partners can deliver their work plans with reduced funds.

To make matters worse, there have been large changes in currency exchange rates since project commencement. These are illustrated in Figure 5 a and b. The exchange rate has decreased by ~17% since the project began (1AUD : 92 to 76 NPR). Figure 5 b shows the 10 year history of AUD-NPR exchange rates. Conservatively, one must assume that the exchange rate is heading to a more normal regime for the time being. This has serious implications for what the Nepal partners can achieve with their allocation.

Our first response to this new reality is to slightly alter the way in which pay-period allocations are made. We will dispense with the bi-annual formal action research planning meetings and hold them only once a year, in January. The ARPMs are very costly and

time-consuming. There will still be a June-July meeting; but it will be shorter, informal, only involving research group leaders and focusing on making the budget allocations work.

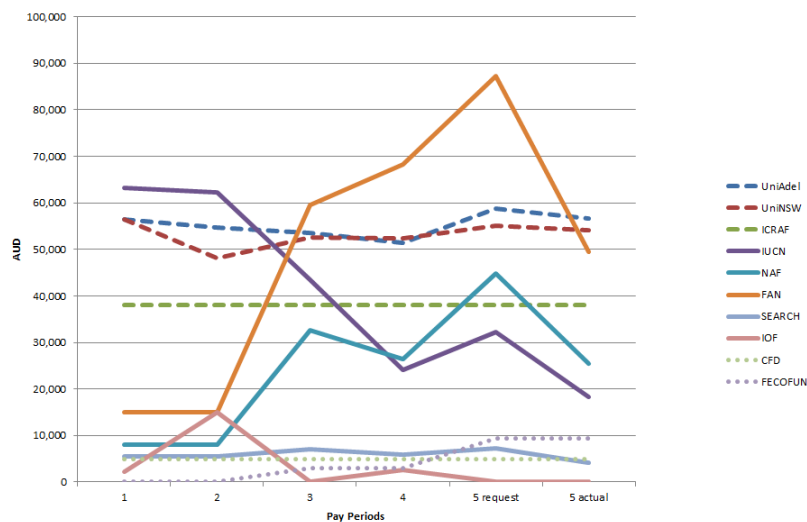


Figure 4 Budget allocation to partners over first 5 pay periods

NPR per 1 AUD

13 Apr 2013 00:00 UTC - 13 Apr 2015 02:45 UTC
AUD/NPR close: 75.78880 low: 75.47094 high: 97.95113



a

NPR per 1 AUD

2 Jun 2014 00:00 UTC
AUD/NPR close: 88.71876



b

Figure 5 Currency exchange rate fluctuations: since project commencement in April 2013 and 10 year history (source <http://www.xe.com/currencycharts>)

9 Appendices

9.1 Key project documentation

These documents, spreadsheets, databases, modelling files are available in the “Project Documents” site on Basecamp. They only represent key documents for this reporting period.

Ref	Content, author, date, file name
2015_01	M Joshi, SS Nuepne, BH Pandit (2014) , Agroforestry Nursery and Value Chain Training, Nov 24-28, 2014, Bahaktapur, EnLiFT Project Report
2015_02	NS Paudel, R Karki, G Paudel, D Katri (2014) , Community Forestry Innovations Report, EnLiFT Project Report
2015_03	D Tamang, E Cedamon, A Perdana (2015) , Report with a short list of researchable market opportunities that can be incorporated into community forestry, EnLiFT Project Report
2015_04	E Cedamon, I Nuberg, H Ojha, K Shrestha (2014) , Conceptual and operational framework for silviculture demonstrations, EnLiFT Working Document
2015_05	K Paudel, YR Subedi, S Tamang, U Acharya (2014) , Report on drivers and dynamics of under-utilised lands in the middle hills of Nepal, EnLiFT Project Report
2015_06	SM Amatya, I Nuberg, E Cedamon, YR Subedi, BH Pandit (in press) Enhancing Rural Livelihood through Agroforestry Systems in Nepal, <i>Asia-Pacific Agroforestry News</i>
2015_07	BH Pandit, KK Shrestha, S Bhattarai (2014) Sustainable local livelihood through enhancing agroforestry systems in Nepal. <i>Journal of Forest and Livelihood</i> , 12, 47-63.
2015_08	KK SHRESTHA, HR OJHA, R KARKI, B BHATTARAI, R. KARKI, I NUBERG AND NS PAUDEL (2014) , The forest-food paradox: rethinking community forestry in Nepal. Conference on Agrifood XXI, Food, People, Planet, 24-26 Nov 2014, Sydney
2015_09	NS Paudel, R Karki, G Paudel, H Ohja, KK Shrestha (2014) , Reframing the farm-forest interface: how can community forestry better address food security and livelihoods in Nepal?, 6 th National Community Forestry Workshop, 16-18 June 2014, Kathmandu
2015_10	GP P PAUDEL, NS PAUDEL, DB KHATRI (2014) , Revenue and employment opportunities from timber management in Nepals community forests, 6 th National Community Forestry Workshop, 16-18 June 2014, Kathmandu
2015_11	BH PANDIT, KK SHRESTHA, HR OJHA, I NUBERG (2014) , Why cannot local forestry do forestry business? Analysis of barriers in the value chain of private forestry products in Nepal, 6 th National Community Forestry Workshop, 16-18 June 2014, Kathmandu
2015_12	DD TAMANG; SL SHRESTHA, BDS DANGOL, DS TAMANG (2014) , Prospects in Marketing of Timber and Non-timber Forest Products from Community Forestry in Nepal, 6 th National Community Forestry Workshop, 16-18 June 2014, Kathmandu
2015_13	Ministry of Forest Directive Creating the EnLiFT Project Committee and District Level Coordinating Committee

9.2 Acronyms used in this report

AF	Agroforestry
AR	Action Research
ARPM	Action Research Planning Meeting
CF	Community Forestry
CFD	Community Forestry Division
CFUG	Community Forest User Group
DFO	District Forest Officer
EnLiFT	Enhancing Livelihoods and Food security from agroforestry and community forestry [= Trees] in Nepal
FAN	Forest Action Nepal
FECOFUN	Federation of Community Forest Users Nepal
GoN	Government of Nepal
IOF	Institute of Forestry,
IUCN	International Union for Conservation of Nature
MEDEP	Micro-Enterprise Development Program
MFSC	Ministry of Forests and Soil Conservation
NAF	Nepal Agroforestry Foundation
NGO	Non-Government Organisation
PAR	Participatory Action Research
PP	Pay Period
SN	Search Nepal
TU	Tribhuvan University
UUL	Under-Utilised Land
UA	University of Adelaide
UNSW	University of New South Wales
WCAF	World Congress on Agroforestry