



Activity Report

December 2010 – March 2015

The Samdrup Jongkhar Initiative



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NOTE TO READERS:

This SJI Activity Report was prepared for our main donor International Development Research Centre (IDRC) of Canada. It is, however a comprehensive report and gives an overall picture of SJI activities carried out during the period December 2010-March 2015. The report is organized according to the project objectives outlined in the original 2010 proposal to IDRC, and the degree to which these objectives have been achieved. As key activities undertaken overlap some objectives, some repetition could unfortunately not be avoided in using this reporting format.



Appendices

1. Working paper: An investigation of agricultural systems and ways of knowing in Samdrup Jongkhar, Bhutan: Outcomes of research undertaken by the Samdrup Jongkhar Initiative: 2011-15.
2. Proposal: MoAF/IFAD Commercial Agriculture and Resilient Livelihoods Enhancement Programme (CARLEP).
3. Case study: Agroforestry/fruit nursery (Gomdar).
4. Case study: Cash crop/asparagus (Orong).
5. Case study: Soil conservation (Serthi).
6. Case study: System of rice intensification/SRI (Pemathang, Langchenphu).
7. Audiovisual knowledge products: SJI Youtube channel.
8. Certificate of Appreciation: SJI zero waste programme.
9. Proposal: Bhutan Trust Fund for Environmental Conservation (BTFEC).
10. Case study: Solar drying (Lauri).
11. Report: Fabrication of waste segregation station.
12. Impact Assessment: Questionnaire SJI overall.
13. Impact Assessment: Questionnaires organic agriculture programme.
14. Impact Assessment: Questionnaire appropriate technology programme.
15. Impact Assessment: Questionnaire zero waste programme.
16. Impact Assessment: Questionnaire youth engagement programme.
17. Impact Assessment: Presentation of internal training for SJI staff.
18. District Development Strategy Workshop: Schedule.
19. District Development Strategy Workshop: List of participants.
20. District Development Strategy Workshop: SJI presentation (excluding photos).
21. District Development Strategy Workshop: List of theme group participants.
22. District Development Strategy Workshop: Report.
23. District Development Strategy Workshop: Bhutan Today newspaper article.
24. District Development Strategy Workshop: Kuensel newspaper article.
25. Training/resource material: Farmer promoter manual.
26. Training/resource material: Organic resources database (ORD).
27. Training/resource material: Cow feed tutorial.
28. Training/resource material: Pit compost tutorial.
29. Training/resource material: Cover cropping tutorial.
30. Proposal: Maitri Trust.



Abstract/Summary

The Samdrup Jongkhar Initiative (SJI) was launched in December 2010, and formally established as an NGO under the auspices of the Lhomon Society (LMS) in February 2012. The overall objective of the Initiative is to raise living standards in Samdrup Jongkhar and establish food security and self-sufficiency, while fully protecting and enhancing the natural environment and making it resilient to climate change, strengthening communities, stemming the rural-urban migration tide especially among educated youth, and fostering a cooperative, productive, entrepreneurial, and self-reliant spirit grounded in a rights-based approach to development, particularly focusing on women and youth.

Through collaboration with SJI's Canadian partner-NGO GPI Atlantic the SJI was initially provided a three-year research grant by IDRC covering the period December 2010–November 2013. During the first project year SJI activities mainly focused on setting up the necessary research foundation for the actual programming phase, through development of a 300-page Profile of Samdrup Jongkhar. That Profile, based on primary, secondary, and field research, informed the subsequent two years of SJI design, implementation, action research, and follow-up actions in four programming areas 1) organic agriculture, 2) appropriate technology, 3) zero waste, and 4) youth engagement, all emphasizing knowledge creation, capacity development, and policy impact in its interventions. During this period of time, SJI also put high priority on building social capital through developing critical relationships with relevant stakeholders in the district and beyond.

While approaching the end of the three-year project cycle in 2013, it was concluded that the SJI had achieved considerable success in fulfilling many of the key specific objectives stated in the original 2010 project proposal as well as having many additional unintended impacts, particularly in expanding its network of partners and deepening its penetration of the community and its social capital in the region. SJI, however, still had some way to go by the end of the project cycle in accomplishing the more ambitious specific objectives with respect to organic agriculture research, outreach and implementation of farmer trainings, economic diversification, general consolidation of projects for facilitating upscaling and policy impact, overall impact assessments, and providing contributions and recommendations to the district development strategy – all necessary components to ensure the long-term sustainability of the project. According to IDRC's external reviewer, Dr. Julian Gonsalves, who reviewed SJI's programmes and projects in September-October 2013, these shortfalls were mainly due to overly ambitious objectives and outcomes set in the beginning of the project in 2010, particularly in relation to the limited staff resources overseeing and implementing the project.

In order to address the outstanding issues and ensure project sustainability, the SJI worked closely with Dr. Gonsalves to review, revise, and construct an implementation plan for the key remaining objectives under the IDRC grant. Based on those revisions, SJI submitted a proposal and request for project extension to IDRC, which kindly granted an additional 16-month extension of the project from December 2013-March 2015 (see Proposal for Project Extension, October 2013). Thus the development of the SJI project over the period 1 December 2013-31 March 2015 has been in the spirit of both expansion and consolidation, as envisioned in the October 2013 Project Extension Proposal.



the district and beyond, especially through the organic agriculture and zero waste programmes. An extensive set of knowledge products ranging from high quality research studies, training materials and tutorials, to best practice video productions was also developed to facilitate knowledge sharing and upscaling of SJI's programmes and projects.

All this prior project completion and consolidation work provided a good basis for discussion during the district development strategy workshop with local government, which was conducted in March 2015 as part of the fourth component: **4) SJI Contributions to Samdrup Jongkhar District Development Strategy**. The workshop was the first of its kind in Bhutan, where local government and an NGO jointly discussed areas and forms of development collaboration together with common stakeholders, in order to strengthen local development at the grass roots level. Outcomes from the workshop included decisions to strengthen collaboration within agriculture, livestock, rural-urban migration/youth, tourism, crafts, and waste management, and to establish a theme working group for agriculture and livestock. It was also agreed that similar multi-stakeholder workshops should be institutionalized and conducted on a yearly basis in connection to the district council meetings in the future.

The last component: **5) Capacity Development of SJI Staff for Efficient Operational Management** was continuously taking place during the year, particularly through increasing the complexity and responsibility of project and organizational management by local SJI staff and partners, and through internal and external trainings.

In sum the SJI has, through completing in principle all activities and outputs as proposed in the Proposal for Project Extension, been able make substantial contributions to fulfilling most of the specific objectives as well as the overall objective stated in the original 2010 project proposal (including necessary adjustments), and is now well prepared to move from baseline/action research and pilot testing to larger scale upscaling in the coming years ahead, post-IDRC support, both at an organizational and programmatic level. The SJI has managed to secure funding for its core costs and most of its programmatic expenditures for the next project cycle to take this strategy and vision forward. IDRC support has been critical to birth and incubate this ambitious project and to bring it to the point of long-term sustainability, where it can begin to be a model for local development beyond Samdrup Jongkhar.



1. Introduction

The Samdrup Jongkhar Initiative (SJI) was launched in December 2010, and formally established as an NGO under the auspices of the Lhomon Society (LMS) in February 2012. The overall objective of the Initiative is to raise living standards in Samdrup Jongkhar and establish food security and self-sufficiency, while fully protecting and enhancing the natural environment and making it resilient to climate change, strengthening communities, stemming the rural-urban migration tide especially among educated youth, and fostering a cooperative, productive, entrepreneurial, and self-reliant spirit grounded in a rights-based approach to development, particularly focusing on women and youth.

Through collaboration with SJI's Canadian partner-NGO GPI Atlantic the SJI was initially provided a three-year research grant by IDRC covering the period December 2010–November 2013. During the first project year SJI activities mainly focused on setting up the necessary research foundation for the actual programming phase, through development of a 300-page Profile of Samdrup Jongkhar. That Profile, based on primary, secondary, and field research, informed the subsequent two years of SJI design, implementation, action research, and follow-up actions in four programming areas 1) organic agriculture, 2) appropriate technology, 3) zero waste, and 4) youth engagement, all emphasizing knowledge creation, capacity development, and policy impact in its interventions. During this period of time, SJI also put high priority on building social capital through developing critical relationships with relevant stakeholders in the district and beyond.

While approaching the end of the three-year project cycle in 2013, it was concluded that the SJI had achieved considerable success in fulfilling many of the key specific objectives stated in the original 2010 project proposal as well as having many additional unintended impacts, particularly in expanding its network of partners and deepening its penetration of the community and its social capital in the district. SJI, however, still had some way to go by the end of the project cycle in accomplishing the more ambitious specific objectives with respect to organic agriculture research, outreach and implementation of farmer trainings, economic diversification, general consolidation of projects for facilitating upscaling and policy impact, overall impact assessments, and providing contributions and recommendations to the district development strategy – all necessary components to ensure the long-term sustainability of the project. According to SJI's external reviewer, Dr. Julian Gonsalves, who reviewed SJI's programmes and projects in September-October 2013, these short falls were mainly due to overly ambitious objectives and outcomes set in the beginning of the project in 2010, particularly in relation to the limited staff resources overseeing and implementing the project.

In order to address the outstanding issues and ensure project sustainability, the SJI was hence granted an additional 16-month extension of the project from December 2013-March 2015 (see Proposal for Project Extension, October 2013), and the development of the SJI project over the period 1 December 2013-31 March 2015 has since been in the spirit of both expansion and consolidation, as envisioned in the October 2013 Project Extension Proposal.

This report will focus on SJI's achievements with respect to activities, outputs, and outcomes in relation to specific and overall objectives during this 16-month extension period, with a particular emphasis on the second period 1 August 2014-31 March 2015 (see Interim Technical Report to IDRC, September 2014 for a detailed account of the first extension period 1 December 2013-31 July 2014), while also continuously referring to past achievements from the inception of the SJI project in 2010. This will be followed by an overall assessment of the SJI project and recommendations



focusing on lessons learned within the fields of knowledge creation, capacity development, and policy impact.

Please note that the organization of this report according to objectives necessarily produces some repetitions due to the actual practical integration of these objectives, and we therefore apologize in advance for such repetitions.



2. Activities, Outputs, and Outcomes in relation to Project Objectives

Specific objectives

Year 1

1. *To continue and expand the participatory consultative process within local communities started in early 2010, based on both one-on-one interviews and focus groups, to identify the best ecologically-friendly development opportunities.*

The participatory consultative process within the local communities has been considerably expanded and deepened over the years, while building up a solid network involving all relevant stakeholders ranging from community members and groups, local elected leaders, local institutions and schools, to national government representatives and institutions, universities, civil society, private sector, and the media. In the impact assessment conducted in October-November 2014 (see specific objective 7, year 1 and overall objective), stakeholders often cited the strong social capital base as one of SJI's biggest achievements, which confirms the findings in Dr. Julian Gonsalves's external review report stating that: "The wide range of collaborative action (more often involving high degree/levels of volunteerism) undertaken...is useful evidence of the social capital that SJI is starting to build up in Samdrup Jongkhar."

During the latter part of this reporting period, close consultations have continued to take place with agriculture extension officers during a Mid-Term Review meeting conducted in September 2014, following-up on the joint Ministry of Agriculture and Forest (MoAF)-SJI organic agriculture programme initiated by the beginning of the year. A Final Evaluation Workshop with AEOs was subsequently held on 17 March 2015. Other key consultation meetings involved SJI's participation in the *National Conference for Engineers and Architects and National Conference on Sustainable Solid Waste Management* organized by Ministry of Works and Human Settlement on 23-25 October 2014, where the SJI got the chance to present its zero waste programme, and was also awarded a "Certificate of Appreciation" by the Minister of Works and Human Settlement for its "innovative approach to waste management" (see specific objective 4b, year 1). In October-November 2014 the SJI also conducted a comprehensive impact assessment exercise for all its programmes and projects with key stakeholders, including community beneficiaries, donors, collaborating partners, researchers, and SJI staff, using various methodological approaches ranging from one-on-one interviews to focus group discussions (see specific objective 7, year 1). Finally, a large scale consultation took place on 16-17 March 2015 during the *Samdrup Jongkhar District Development Strategy Workshop*, where the SJI met with local government leaders and common stakeholders from the whole district to discuss areas and forms of collaboration, in order to strengthen local development at the grass roots level (see specific objective 8, year 1). All these consultative processes have directly focused on identifying and promoting ecologically-friendly development opportunities within SJI's areas of work.

According to the research specific objectives in the original proposal, it is stated that the best ecologically-friendly development opportunities will be identified "first in the agricultural sector, and later more broadly". Intensive research and consultative processes to identify new economic diversification opportunities have indeed taken place over the years, but the actual order of



accomplishment has been reversed, with ecologically-friendly development opportunities more effectively identified and implemented in the fields of solar drying/appropriate technology (marketing and sales of solar dried produce) (see specific objective 5, year 1) and zero waste (income generation through recycling, compost production, and sales of zero waste handicrafts) (see specific objective 4b, year 1) than in agriculture, where lack of an Agriculture Coordinator has hampered progress. However, during the last year, strong efforts have been put into testing out new ecologically-friendly development opportunities in the agriculture sector through organic agriculture pilot impact areas identified through the participative consultative processes. Pilot impact areas have so far been established in soil conservation, organic rice growing (SRI), agroforestry/nursery, and cash crop/asparagus, and have created a strong basis for economic diversification and income generation in the district, as demonstrated in the comprehensive case studies developed based on rigorous monitoring of the pilots from their inception. Increased income generation is anticipated through sales of local vegetables, increased rice production through SRI, establishment of agroforestry nursery for sales of saplings, income generation through planting materials used to improve soil fertility, and through cash crop/asparagus production (see specific objective 4a, year 1). The recently completed organic agriculture knowledge products comprising a research working paper based on 179 one-on-one interviews with Samdrup Jongkhar farmers (see specific objective 3, year 1), the organic agriculture resources database (ORD) of the best practice organic technologies/practices/agrobiodiversity in the dzongkhag, organic agriculture tutorials, and case stories (see specific objective 2, year 2 and 3), have also identified additional best ecologically-friendly development opportunities in agriculture, such as seed saving/banks, reintroduction of traditional crops, and small-scale processing of foods, that SJI could explore further in the future.

All in all, the SJI has during the past year made a great leap when it comes to going from knowledge creation and capacity development to actual implementation of ecologically- friendly development opportunities, significantly deepening impact and strengthening the sustainability and upscaling potential of SJI's programmes and projects.

2. *To develop a comprehensive and thorough regional profile through existing data analysis and field research. This initial research phase will also investigate and report on best practices locally, nationally, and globally, which can act as potential models for the Samdrup Jongkhar Initiative.*

The Samdrup Jongkhar Profile, a 300-page research profile of the district, was researched and prepared by GPI Atlantic researchers and the SJI team, and submitted to IDRC in March 2012. The Profile is the first of its kind in Bhutan, combining analysis of primary and secondary data (including previously unpublished micro-data from National Statistics Bureau surveys), field surveys, interviews, and on-site studies to provide comprehensive baseline data at the district level. With results presented to a national research and policy audience, this Profile is now regarded as a potential model and template for Bhutan's 19 other districts, and has been shared with SJI's key stakeholders. The Profile focusses on agriculture and environment issues and draws on best practices from external literature and existing models from local, national and global sources. For the SJI, the Profile continues to be one of the most important knowledge products/capacity development tools, having extensively informed the evidence-based design of SJI's four programming areas, and has consequently been decisive in formalizing SJI's contributions and recommendations to the official Samdrup Jongkhar District Development Strategy to promote policy impact (see specific objective 8, year 1). Select parts of the Profile are also regularly



referenced on an ongoing basis for particular projects: To take just one example, the section on rural-urban migration was extensively used and referenced during SJI's Youth Media Camp.

3. *To carry out in-depth quantitative and qualitative investigations related to agriculture, including identification of controls, monitoring of the transition regime, impact of incentives, market analysis, and use of fertilisers, to ensure that both local and regional data are accurately collected and analysed.*

From 2011 to 2014, the SJI undertook in-depth quantitative, qualitative, and action research within agriculture in Dewathang, Orong, Phuntshothang, and Pemathang gewogs of Samdrup Jongkhar. Baseline data were collected at the household level through interviews on farming systems and livelihoods to initially monitor the district's transition to organic agriculture (2011-2013) and eventually to identify ecologically friendly development opportunities (2014). The research was conducted by the SJI team overseen by visiting international researchers (Ms. Emily Green-Tracewicz, Ms. Chisato Maeda, Ms. Rebecca Porlier, and Mr. Ben Hunsdorfer, Mr. Erik Landry), who at the same time worked extensively on developing the research capacity of the local agriculture team over the years.

Overall, the research attempted to document traditional agricultural knowledge, knowledge gained through organic agriculture trainings, and the perspectives of farmers in a total of 179 farmer interviews, which were synthesized into a 140 pages working paper: *"An Investigation of Agricultural Systems and Ways of Knowing in Samdrup Jongkhar, Bhutan: Outcomes of research undertaken by the Samdrup Jongkhar Initiative: 2011-15"*, by SJI's Research Coordinator, Ms. Emily Green-Tracewicz, during her third visit to Dewathang in January-March 2015 (see Appendix 1).

Interviews in 2011-2013 mainly focused on documenting general demographic data of the agricultural systems typically found in the study region as well as monitoring the adoption rates of the taught organic practices from Navdanya trainings through a lengthy questionnaire that, upon use in the field, was found to be culturally insensitive. Agricultural data revealed that farmers in Dewathang and Orong were generally focused on dairy and vegetable production while rice was the main cash crop in Phuntshothang and Pemathang. Data also indicated that for various reasons including labour and resource shortages, the interviewed farmers, to a large extent, had not adopted the organic agricultural trainings (although the impact assessment of Navdanya trainings conducted in 2014 showed higher rates of adoption than originally anticipated, as submitted to IDRC in 2014).

It also became clear that there was extreme agroecological diversity not only between gewogs, but also between and within chiwogs (village clusters) indicating that recommendations for the study region as a whole would be difficult based on the research sample sizes. Nevertheless, data from 2011-2013 have been presented from the interviews of sampled farmers from each gewog in the following themes: Cropping patterns of Dewathang, Orong, Phuntshothang, and Pemathang gewogs; Challenges in Agriculture; Sources of Agricultural Information and Community Organizations; The Adoption of the Jersey and Jersey-cross Breed of Cattle; Agricultural Livelihoods; Monitoring the Transition to Organic; Influence of Religion and Traditional Knowledge; New Research Objective; New Research Methodology; and Seed Saving and Diversity.

Research in 2011-2013 also uncovered that Samdrup Jongkhar farmers were practicing traditional forms of organic agriculture already. Instead of trying to monitor the adoption rates of farmers and



continue using the lengthy questionnaire, research objectives and methodology were hence altered in 2014 following action research in order to better articulate with the region's oral culture, as well as to learn about the traditional practices and knowledge already being used by the farmers to identify ecologically friendly development opportunities (see comparative methodological study submitted to IDRC in 2014 including research questionnaires). Because of the change in research objectives and methodology, i.e. the research was no longer monitoring the transition to organic agriculture, the SJI did not expect results in yields, farm economic viability, or enhanced food self-sufficiency (as a result of the organic transition). Although it was found that a majority of farmers were organic by tradition, and practicing organic agriculture already, the data showed that of the interviewed farmers, in 2013 no one reported using any inorganic chemicals, while they were still being used somewhat in 2011. This change can be partly attributed to the Navdanya trainings held with farmers in 2010-2012.

Interviews in 2014 focused more on the views that farmers wanted to share with researchers, including aspects of their traditional farming, what influences their agricultural decision making, and their views on modernization and change in the region. The research had less of an agenda and did not worry about extracting specific information, letting the voices of farmers shape the direction of research and recommendations. Data from year 2014 have been presented on the following themes: Household Demographics; Life On The Farm; Training; Change in Cropping Systems Since Childhood; Seed Saving; Maintaining Soil Fertility; Pests and Disease; Religion and Decision-Making; Farmer Co-operatives; Modernization; and Dreams For The Future. A section also summarized the research collected from a seed workshop in 2015.

According to Ms. Emily Green-Tracewicz, the information gathered over the research period has provided a clearer picture of on-the-ground realities of the people of Samdrup Jongkhar, but it has only provided a glimpse into the complex agroecological subjectivities of the local people. "The SJI's organic agriculture programme must work to balance the introduction of outside information and trainings with cultivating the local knowledge and wisdom that already exist in agriculture in order to support ecologically friendly development opportunities that does not sacrifice the rich and diverse culture and environment that the people of Samdrup Jongkhar depend upon."

She further concludes, that based on the complex intricacies uncovered through the research, the future responsibility of the SJI may be most effective and inclusive as a mediator or facilitator between farmers and extension officers, paying particular attention to the role that religion plays in agricultural decision-making, building individual capacity, and forging collaborative relationships (these recommendations have already to a large extent been incorporated into SJI's organic agriculture programme through close collaboration with agriculture extension officers (AEOs) and introduction of the farmer promoter model/farmer-to-farmer approach (see specific objective 2, year 2 and 3)). Other recommendations based on the issues encountered in agriculture such as the problems with crop raiding by wild animals, seed saving, pests and disease, food storage, and labour shortages as well as potential future agricultural development activities (farmer promoter network, information dissemination, reintroducing traditional crops, biodiversity fairs, awareness building over the importance of local foods, and value added and small-scale processing of foods) are moreover summarized in the working paper.

The intention is that this unique and high quality working paper/knowledge product will be published in the Journal of Bhutan Studies, through the Centre for Bhutan Studies and GNH Research during the coming year, and shared widely among policy makers and practitioners within the country and beyond, to serve as an example of how local traditional practices and knowledge in agriculture can provide a more effective and sustainable approach to ecologically friendly development.



4. To identify selected locations and/or individuals for implementing and assessing specific actions identified in the first local consultations, namely (4a) **organic growing methods** (this action is subject to close monitoring and research to ensure that the transition to organic methods enhances rather than undermines economic viability), and (4b) **minimization of waste**.

4a) As mentioned in earlier Technical Reports to IDRC, SJI has, since its inception, relied on selected individual model farmers and model farms to demonstrate the value of effective organic farming methods to neighbouring farmers. Thus progressive, hard-working, and innovative farmers like Mr. Tshering Gyalpo and Mr. Meme Sherab and their farms have become the main testing grounds and demonstration sites in Samdrup Jongkhar for organic growing methods taught by Navdanya and OFAI. Up until 2013, most of SJI's work in identifying selected locations and/or individuals for implementing and assessing these methods and their economic viability were, however, centred on the Dewathang vicinity, with limited outreach to the rest of the district.

In order to expand outreach and the degree of actual field implementation of farmer trainings (see specific objective 2, years 2 and 3), SJI in 2013 instituted a significant shift in its focus from direct training of farmers to training of agriculture extension officers, who interact regularly with farmers at the gewog level throughout the whole district. Building on the idea of strong involvement of AEOs and selected locations and/or individuals to promote outreach and implementation, SJI's external evaluator suggested expanding this concept further into building a network of 7 farmer promoters in each of Samdrup Jongkhar's eleven gewogs. The intent was for these farmer promoters to become model farmers who will work closely together with the AEOs on implementing organic farming practices and training other farmers in their respective villages. Implementation would be further facilitated by the set-up of five organic agriculture pilot impact areas in i) soil conservation (Serthi), ii) organic vegetable production (Dewathang), iii) organic rice growing (SRI) (Langchenphu, Pemathang, Phuntshothang), iv) agroforestry (Gomdar), and v) cash crops/asparagus growing (Orong), comprising 7 of the 11 gewogs in the district. The designated pilot impact sites would serve as testing and learning sites for upscaling best practice organic growing methods, as well as for promoting economic diversification and enhancing economic viability within the sector.

This new farmer-to-farmer approach was launched during the joint Ministry of Agriculture and Forests-SJI Implementation Planning Workshop with AEOs in February 2014, and has since been reviewed twice during a Mid-Term Review meeting conducted on 9 September 2014, and during a Final Evaluation Workshop held on 17 March 2015. In total 70 farmer promoters have been selected and trained by AEOs, and farmer-to-farmer trainings through Farmer Field Days have been conducted in all 11 gewogs, increasing the number of farmers trained from 1000 (between 2010-2013) to approximately 2000 in just one year (2014-2015).

With regards to the organic agriculture pilot impact areas, they have all been fully set up apart from the SRI pilot in Phuntshothang, which due to rice saplings spoiling in connection to the planting time last year has been delayed until July 2015. The Dewathang organic agriculture pilot impact area was also delayed due to lack of an AEO in the gewog, but has since a few months back started through intensive work on formation of farmer groups and farmer group exchanges, resulting in the set up of 4 new organic vegetable groups in Dewathang. This work has been made feasible through the newly arrived AEO of the gewog, Mr. Lungten, who joined the office in Dewathang in



as high quality knowledge products, facilitating replication and upscaling in the district and beyond (see Appendices 3-6 for case studies). Thanks to media coverage, the SRI pilot impact area has been noticed by key players in this technology. Dr. Norman Uphoff has connected the SJI with SRI actors in India who have already committed to help SJI in expanding the system of rice intensification in Bhutan. Dr. Norman T. Uphoff is a senior advisor for SRI-Rice at Cornell University SRI International Network and Resources Center (<http://sri.ciifad.cornell.edu/index.html>), and a Professor Emeritus of Government and International Agriculture at Cornell, the Acting Director of the Cornell Institute of Public Affairs and former director of the Cornell International Institute for Food, Agriculture, and Development (CIIFAD).

4b) The SJI zero waste programme was initiated in 2012 through funding from Civil Society Fund Facility (CSOFF)/Danida and Austrian Development Cooperation/Agency, and was also implemented in selected locations and through selected individuals/committees in two pilot villages. Dewathang was identified as the pilot urban village, and Wooling as the pilot rural village. Through human and institutional capacity development, awareness raising activities, and economic diversification efforts in the two communities, considerable local uptake of SJI zero waste initiatives has taken place, thereby minimizing waste being burnt and going to the landfill. Instead discarded materials are being reduced, reused or recycled to a much larger extent in the selected locations. The selection of local zero waste trainers, and the set up of zero waste committees in each location, have played, and continue to play a decisive role both in the actual implementation and assessment of the zero waste initiatives carried out (please see earlier Technical Reports to IDRC for details).

Upon recommendation of SJI's external reviewer, rather than expanding into new locations, consolidation of SJI's zero waste programme continued in Wooling and Dewathang during the past year including during this reporting period, with a particularly strong focus on economic diversification, income generation, and economic viability of the programme to ensure sustainability and thereby continuous minimization of waste. This has been promoted through sales of compost (see specific objective 3, year 2 and 3), collection and sales of recyclables, and zero waste handicrafts.

Under the supervision of Ms. Pia Lindström, Ms. Taylor Cass Stevenson together with two interns (Ms. Sonam Choden and Ms. Tshering Dukar) and Mr. Cheku Dorji have been instrumental in both promoting collection and sales of recyclables and developing a zero waste handicraft product line (see Interim Technical Report to IDRC 2014 for product samples). Apart from setting up waste segregation stations, material recovery facilities (MRFs) and promoting scrap dealing/recycling in both locations, the team also established a women's group constituted by 18 participants in Dewathang, which has now become fully formalised into a self-help group engaged in production and sales of zero waste handicrafts made out of PET bottles and plastic wrappers. In Wooling select individuals are also engaged in production and sales of zero waste handicrafts, although at a smaller scale. The products are sold both locally and in the capital Thimphu, and orders are also placed by local institutions directly with the group. On 24-28 December 2014 the products were displayed and sold at the Bhutan Chamber of Commerce and Industry (BCCI) fair held in Samdrup Jongkhar through the Agency for the Promotion of Indigenous Crafts (APIC).

While demand continues to expand, the SJI at the same time actively works on identifying new markets for the products. As part of SJI's awareness and marketing efforts the *Zero Waste Training Manual* has been narrated in English and Dzongkha for screening on national TV, Bhutan Broadcasting Service (BBS). Moreover a ten minute documentary: *A story from Dewathang* of Ms.



Choden's experience from interning with the SJI and thereafter becoming a youth entrepreneur by setting up her own zero waste handicraft business in Dewathang has been developed for screening on BBS. These audio visual knowledge products were produced by final year media studies students at Sherubtse College, under the supervision of Mr. Tshewang Dendup, as part of SJI's youth engagement programme (see specific objective 4, year 2 and 3). The productions are also shared on Youtube (see Appendix 7 for Samdrup Jongkhar Initiative Youtube channel), and are expected to both lead to increased awareness on zero waste, increased demand for zero waste handicraft products, and inspire youth to take up entrepreneurial activities at the national level, thereby contributing to further upscaling the zero waste programme beyond Samdrup Jongkhar dzongkhag. Ms. Dukar has since also completed her internship with the SJI, and has similarly started her own zero waste business as a scrap dealer directly providing materials to the group, while continuing to develop the zero waste handicraft product line in collaboration with the women. In total, income generated from the zero waste projects amount to 262 percent of programme cost for the period 2014-2015, confirming strong economic viability.

As previously mentioned, the SJI got the opportunity to present its zero waste programme of its selected pilot locations Dewathang and Wooling at the *National Conference for Engineers and Architects and National Conference on Sustainable Solid Waste Management* organized by Ministry of Works and Human Settlement in October 2014, and was also awarded a *Certificate of Appreciation* by the Minister of Works and Human Settlement for its "innovative approach to waste management" (see Appendix 8 for certificate). In order to facilitate upscaling of the successful pilots to other rural and urban areas in the district, two orientation and exposure workshops were conducted to Wooling on 25 February and in Dewathang on 7 March 2015 respectively, as recommended by Dr. Gonsalves, where stakeholders from the pilots and nearby gewogs in the district were invited to learn from the experiences in Wooling and Dewathang. As a result, upscaling of the zero waste programme to Orong (rural) village and Samdrup Jongkhar (urban) town will take place from September 2015 onwards through recently secured funding from Bhutan Trust Fund for Environmental Conservation (BTFEC) (see Appendix 9 for proposal). The Samdrup Jongkhar Municipality will continue to play a vital role in the implementation and for institutional and policy uptake in the Municipal area and beyond, and has decided to support SJI's zero waste efforts in Samdrup Jongkhar through contributing with setting up a MRF and composting facility near the sanitary landfill, by establishing segregation stations in the town area based on the model implemented by SJI-CAT at the local monastery (see specific objective 5, year 1), by conducting larger scale awareness campaigns in schools, and providing space in the Municipal market shed for the women's group to sell their zero waste handicraft products. The Municipality also strongly supports SJI's composting initiative (see specific objective 3, year 2 and 3), and has procured large amounts of compost from farmers for tree planting in the town. Other gewogs in the dzongkhag have moreover approached the SJI for upscaling of the zero waste programme to their own constituencies, and have already set aside funds for implementation during the coming year.

5. To train farmers in low-cost **appropriate technologies**.

As previously reported to IDRC, to date three appropriate technology projects have been carried out through SJI's collaboration with the Centre for Appropriate Technology at Jigme Namgyel Polytechnic.

The first project was initiated in 2011, where farmers in Lauri and Serthi gewogs were successfully trained in low-cost solar drying technologies. Altogether six women solar engineers and 16 local



carpenters were trained in fabrication, installation and maintenance, and 45 farmers were trained in using the 25 solar driers currently in use in the villages of Lauri and Serthi, as additional funding for upscaling the project through dissemination of the solar driers were secured through UNDP-GNHC. The six solar engineers were trained for six months at Barli Development Institute for Rural Women and at Barefoot College in India in solar panel maintenance, solar drying technologies, and other solar engineering methods. These trainings have significantly empowered the women solar engineers, giving them a unique role and status in their communities.

The 25 solar driers have considerably improved the previous open-air drying system in the remote non-electrified communities where they were installed. Villagers have reported very high levels of satisfaction with the produce from the driers – including improved nutrition, taste, colour, hygiene, and quality. The improved quality of the solar-dried fruit and vegetable products also opens up better marketing possibilities, thus creating more opportunities for economic diversification and income generation. Logos for facilitating marketing of the solar dried products from Lauri and Serthi have been developed and printed on cloth bags that will be used for sales of the produce in stores in Thimphu and abroad. During the coming years, specific emphasis will be put on the economic diversification and income generation component of the project through the IFAD-CARLEP project, where separate, large-scale funds have been allocated for “promotion and value addition and preservation through drying technologies” (see Appendix 2 for IFAD-CARLEP proposal)). It is expected that this will indeed spur a shift from currently practiced local barter trade of the solar dried produce to more market orientation and income generation, thereby also adding to the project’s sustainability. A comprehensive case study of the solar drying project has been developed by the SJI, documenting the development of the project from 2010 until today, with a particular focus on the economic diversification and viability aspect of the project. It will continue to be updated during the course of implementation over the coming years, and at the same time serve as a high quality knowledge product, facilitating replication and upscaling (see Appendix 10 for case study).

The second SJI-CAT project concerned installation of a rainwater harvesting system for institutional purposes at Dewathang Primary School together with the contribution of principal, teachers, and students from Dewathang Primary School. The rainwater harvesting project was started in 2012 and involved installation of three rainwater harvesting units in three toilet facilities at the school, thus reducing the need for the approximately 800 school children to collect water for cleaning their toilets. Collecting and bringing water to the school used to be a daily requirement for the students, but now the school children are instead allowed to focus more on their studies. The rainwater harvesting system has in addition contributed to the toilets always being in clean and hygienic conditions so that important messages in hygiene are also being communicated through this process. During the previous reporting period (see Interim Technical Report, September 2014), two additional rainwater harvesting systems were moreover successfully replicated and installed at the local monastery, Chokyi Gyatso Institute (CGI), through funding from the UNDP-GEF-SGP. As water shortages are common at the CGI, this larger scale harvesting system has reportedly sometimes been the only source of water for the Institute for consecutive weeks, and has hence made it possible for the around 180 monks and other beneficiaries to maintain higher levels of hygiene and sanitation during these extended periods of time.

On 12 September 2014, upon recommendation of SJI’s external evaluator, an orientation and exposure visit for community stakeholders was conducted to the rainwater harvesting site including school principals, teachers, and representatives from the Thromde (municipality) and Dzongkhag Administration as well as other institutions, aiming at promoting uptake of the system at a larger scale. During the visit interesting feed-back was given regarding the current construction



and how it can be improved and upscaled to schools and other institutions in the Municipality and beyond. Among other things, it was mentioned that a policy could be implemented, suggesting that all new buildings constructed should have built-in rainwater harvesting systems. Different ideas regarding how to use the harvested rainwater for drinking purposes were also discussed. Another suggestion was to look into low-cost rainwater harvesting systems for agriculture purposes, as water shortages is a continuous issue raised by farmers. Finally, the *Rainwater Harvesting Manual* knowledge product (submitted to IDRC in 2014) was shared with all the participants and has later, upon demand from various interested stakeholders been disseminated more widely in the country.

The third SJI-CAT project was initiated in 2014, in collaboration with Chokyi Gyatso Institute involving the design, manufacture, and installation of waste segregation stations at CGI as part of the UNDP-GEF-SGP project. Interestingly, the five segregation stations installed as part of the zero waste project at CGI were initially launched as a competition among the students at JNP, where the best design was awarded a prize and the honour of having it implemented in practice at the local monastery. Under the supervision of CAT and the SJI, a group of students subsequently manufactured and installed the segregation stations at CGI as part of their final year project work, including submission of a detailed project report *Fabrication of Waste Segregation Station* (see Appendix 11). With regards to further upscaling of the segregation stations piloted at the CGI, the Municipality has recently expressed interest to replicate the stations in Samdrup Jongkhar town for promotion of waste segregation in the city, and has already initiated discussions with the CAT and JNP to take this initiative forward.

The Centre for Appropriate Technology at Jigme Namgyel Polytechnic was established on the initiative of the SJI based on GPI Atlantic research. According to the external review report the CAT “...is one of SJI’s greatest accomplishments as it has institutionalized a partner/research relationship in a highly productive way, leveraging IDRC research funding and very limited SJI staff and capacity to something much larger. CAT is a key appropriate technology accomplishment to date.” The CAT has been an integral part of the educational programme at JNP since its inception, where students can participate in the development of new appropriate technologies, or refine already existing ones through project works. It has been run by designated teachers at the JNP, who serve as Appropriate Technology Focal Persons for the SJI. JNP student involvement has been a key component of all SJI-CAT projects, and is strongly linked with the SJI’s youth engagement programme, which strives to engage and link the youth of Samdrup Jongkhar to the job market in innovative, creative, and meaningful ways (see specific objective 4, year 2 and 3). Another key component is to carry out the project through tripartite/multiple stakeholder partnerships, and as previously illustrated the SJI and CAT have shown successes in collaborating with i) communities in the solar drier project (Lauri and Serthi), ii) a school in the rainwater harvesting project (Dewathang Primary School), and iii) with a monastic institute (CGI) in the waste segregation station project. The SJI hopes to continue to expand its partnerships in appropriate technology during the coming year, both through upscaling of existing projects and setting up of new ones.

One great news is that recently the Centre for Appropriate Technology was recognized as one of the “Centres of Excellence” of the Royal University of Bhutan, and has thereby received substantial funding for establishing designated facilities and procure necessary equipment for the Centre, has recruited a designated Coordinator for the CAT, Mr. Norden Wangchuck, and has set up a Working Committee with focal persons from relevant JNP departments (civil-, mechanical-, electrical-, and IT-engineering) with one external member from the SJI. The SJI is currently recruiting a dedicated Assistant Coordinator to the Appropriate Technology Programme, who will be the liaison between the SJI and CAT and consequently be part of the Working Committee, where joint projects will be discussed and developed. During the coming year, the SJI will conduct at least two projects in



collaboration with the Centre, of which one has already been decided involving developing a localised version of a roto weeder used for removing weeds during rice growing with the system of rice Intensification method, to have ready for wider dissemination once the SRI pilots are ready for upscaling (see specific objective 4, year 1).

6. To support **educational reform** that raises the awareness of local residents and introduces GNH-based curricular materials that support ecologically-friendly community-based development initiatives while still achieving standard learning objectives. In the first project year, a pilot project on science classes that support school vegetable gardens, composting, and waste minimization will be introduced.

As previously reported to IDRC, a sample five-lesson GNH-based science curriculum module was developed during the first project year, and turned into radio plays that were subsequently recorded with the assistance of the Bhutan Broadcasting Service (BBS). These knowledge products were broadcast on BBS throughout the summer of 2011 and distributed to the Royal Education Council (REC) and the Samdrup Jongkhar district education officer. The radio programmes were also disseminated to teachers attending GNH-based curriculum development workshops, and were successfully tested out in a class at the Chokyi Gyatso Institute in Dewathang. A broader-based GNH-based curriculum has now been developed and is presently being tested and applied at CGI through SJI's sister organization Lhomon Education (LME). While this classroom work continues under the auspices of LME, SJI has successfully expanded its original education work into a broader youth engagement programme aimed at providing opportunities for local youth and thereby to help stem the endemic youth rural-urban migration trend (see specific objective 4, year 2 and 3).

7. To assess the preliminary impact of activities undertaken under 4, 5, and 6.

The SJI Impact Assessment was conducted in October and November 2014, involving a wide range of stakeholders including Dewathang key persons and decision makers, donors, researchers, local government representatives and officials, farmers, educational institutes, villagers/community members, local youth, and SJI staff. A multi-pronged method was used for collecting data, based on carefully developed quantitative (rating of achievement before and after SJI interventions on a scale from 1-10) and qualitative questionnaires trying to assess to what extent specific objectives for each programming area as well as the overall objective for the SJI as a whole had been achieved, and to what extent these changes could be attributable to SJI interventions or to other external factors. In addition questions regarding scope for improvement of the programmes and projects were asked, as well as questions pertaining to potential for replication/upscaling and local government policy impact/uptake (see Appendix 12-16 for sample questionnaires for organic agriculture, appropriate technology, zero waste, and youth engagement programmes). Tools ranged from using the questionnaires in individual interviews and focus group discussions to regular community and multi-stakeholder meetings, depending on the nature of each specific programme and project.

The impact assessment was conducted in-house and was preceded by extensive trainings held by Ms. Pia Lindstrom, on the purpose, methods and tools of impact assessments aiming at developing the capacity of the SJI team in preparation for the data collection. The trainings were based on Chris Roche's/Oxfam's methodology as described in *Impact Assessment for Development Agencies – Learning to Value Change* (please see Appendix 17 for power point presentation, *SJI Impact*



Assessment 2014, used in the internal trainings). Below the key findings from each programme and project in specific objective 4, 5, and 6 are briefly summarized, with a focus on input from beneficiaries.

Organic agriculture programme: With regards to increased implementation of organic growing methods in the district, agriculture extension officers rated the level of implementation before SJI interventions in 2010 to 3, and after SJI interventions in 2014 to 7,7. Morong and Rikhey farmers rated the levels of implementation changing from 7 to 8,5 and from 7 to 9 respectively. Concerning the specific objective to contribute to enhanced self-sufficiency in Samdrup Jongkhar, the AEOs saw an improvement from 4 to 6,7 between 2010-2014, and the farmer groups in turn perceived a change from 5,5 to 7,6 and from 6 to 8. SJI's awareness campaigns on the environmental and health consequences of using Urea and awareness of the benefits and promotion of local organic produce, were seen as having been decisive in contributing to the above changes, and can hence be attributed to SJI interventions. As a direct consequence of these awareness campaigns, a district wide ban on Urea was introduced, moving all of Samdrup Jongkhar farmers further away from chemical farming to adoption of more sustainable farming practices including composting practices. The establishment of the Municipal market shed in Dewathang, where farmers from Dewathang and nearby gewogs come to sell their local organic produce, was another direct consequence of SJI's awareness campaigns, which has contributed to enhanced self-sufficiency, income generation opportunities, and less dependency on imports from India. Furthermore, a strong external factor in contributing to enhanced self-sufficiency was the Rupee crisis, having made Indian imports more expensive compared to Bhutanese produce. Scope for improvement of the programme was primarily considered to be in trying to address the issue of more weed and pest outbreaks as a consequence of organic farming, need for more trainings and technical inputs as well as financial and material support, and need for help with marketing and establishing market linkages. Replication/upscaling opportunities was considered to be the highest with respect to the farmer promoter model and organic agriculture pilot impact areas, while policy impact/uptake has already taken place at the local level through the SJI-MoAF collaboration on implementing the farmer-to-farmer approach in the whole of Samdrup Jongkhar dzongkhag, which will be further intensified during the joint implementation of the IFAD-CARLEP Project.

Appropriate technology programme: Market and employment/income generation opportunities through adoption of appropriate technologies have improved in Lauri, where the villagers rated the opportunities before SJI interventions to 5, and after implementation of the solar dryer project to 7. The introduction of the solar drying technology including capacity development of solar engineers, carpenters and farmers on fabrication, maintenance, and usage of the driers, as well as training on proper packaging and provision of zip lock bags had directly contributed to achieving this objective by improving the quality and hygienic standards of solar dried produce, thereby making it more attractive in the market. Outcomes attributable to external factors included increased production and sales of chirata, buckwheat flour, fresh vegetables and dairy products. Suggestions for improvement of the appropriate technology programme concerned ensuring that technologies are in fact appropriate, i.e. relevant to its beneficiaries and firmly based on needs assessments, and also that the projects have large potentials for upscaling, in order to justify the investment of developing the technology from a cost-benefit perspective. Projects should ideally also be gleaned from technologies that already exist in the villages/communities. Potential for replication and upscaling were considered to be there for all the appropriate technology projects conducted so far including the solar dryer, rainwater harvesting, and waste segregation station project. As for the solar dryer project there is high demand for more dryers among the villagers in Lauri, there is an interest to replicate the rainwater harvesting system in other schools and institutions in the municipal and district area, and as for the waste segregation project the Samdrup Jongkhar Thromde has already



initiated discussions with the CAT at JNP and the SJI to take up waste segregation at the local policy level, and replicate and install the CGI waste segregation stations also in Samdrup Jongkhar town.

Zero waste programme: The extent to which the specific objective of minimizing waste in Dewathang and Wooling pilot villages through initiation of responsible and sustainable waste management practices received varied ratings depending on whether the project was carried out in an urban or rural context. In the urban context, Dewathang, the issue of waste was already to some extent addressed through Municipal interventions, and hence the baseline rating naturally started from a higher level, changing from 8 to 9 from 2010-2014 according to the Thromde, and from 6 to 10 according to the Dewathang community. In the rural context, Wooling, conversely, there had been no waste management interventions before SJI's involvement, and hence the shift before and after SJI interventions was reflected in a lower baseline rating, moving from 1 to 4 during the period 2010-2014. A similar difference could be seen with respect to the second specific objective aiming at enhancing economic diversification and income generation opportunities in the villages through sustainable waste management practices, with Dewathang ratings showing changes from 4 to 8, and 5 to 7,5, and Wooling mentioning a change from 1 to 3 before and after SJI interventions. Changes attributable to the SJI zero waste programme primarily concerned awareness and training in both locations, including the introduction of zero waste crafts, which has worked as an effective awareness tool while at the same time generating income for the villagers/community members through sales of the products. Other changes attributable to the SJI pertained to the establishment of the MRF facility in Wooling, and as for external factors, the improved Municipal waste management services in Dewathang were seen as having strongly contributed to the change. Opportunities for improvement were primarily considered to be in further increasing the awareness component of the programme. Replication and upscaling is already taking place as the programme moves to Orong village and Samdrup Jongkhar town, as well as to other parts of the district and beyond, and policy impact has been strong both at the local and national level, with the Thromde directly taking up the SJI zero waste programme for joint implementation in Samdrup Jongkhar town.

Youth engagement programme: The extent to which reduction in rural-urban youth migration and youth unemployment has been achieved through innovative initiatives, was rated by Dewathang youth as having changed from 3,2 in 2010 to 5 in 2014, and from 1 to 2 by the Regional Labour Office/Ministry of Labour and Human Resources. Main interventions contributing to this trend which could be attributed to the SJI were considered to be the youth camps and zero waste workshops, fostering skills and creativity while retaining youth in Samdrup Jongkhar, as well as the SJI Internship programme, developing the capacity of youth with regards to job skills and providing youth with direct exposure to the labour market. Interventions attributed to external factors have mainly been various innovative and well-functioning government programmes designed to address youth unemployment at the local and national level. It was considered that the youth engagement programme could be improved by conducting more outreach activities such as job skills and creativity enhancing camps and workshops, and also through stronger collaboration between the Ministry of Labour and Human Resources and the SJI in implementing their programmes, in order to take advantage of respective strengths and synergies. This would also be a way for the SJI to upscale its internship and volunteer programmes, as linking up with government resources and programmes strongly enhances possibilities for engaging and employing more youth in the district. The closer collaboration with the Ministry also gives the SJI the opportunity to more directly contribute to impact and uptake at the policy level.

In general, as for the activities undertaken in specific objective 4, 5, and 6, the organic agriculture and zero waste programmes were considered to have had the largest impacts and contributions to



the overall objective, in particular through its interventions in awareness and capacity development. Job creation and capacity development of local youth through the SJI Internship Programme were also perceived to have positive long-term impacts.

8. *To draft a preliminary Development Strategy for the region (to be finalized and validated at the end of the 3-year period).*

The Samdrup Jongkhar Profile has worked as the basis for SJI's work and has in practice functioned as the (preliminary) Development Strategy document for all SJI's activities, and consequently also for SJI's contributions and recommendations to the *Samdrup Jongkhar Dzongkhag 11th Five Year Plan (July 2013-June 2018)*, which were presented during a District Development Strategy Workshop with local government, aiming at better aligning SJI's activities and strengthen the synergies with the five-year plan(s) for the dzongkhag. In line with the government's focus on promoting the decentralization process, good governance and equitable development at grass roots level, the SJI invited local decision makers at gewog level from Samdrup Jongkhar dzongkhag for a two day consultation, the *Samdrup Jongkhar District Development Strategy Workshop*, on 16-17 March 2015. The idea was to create a platform where local decision makers could share about their specific needs and priorities, and to see where the SJI could best contribute towards addressing some of these needs and priorities based on SJI's own four years of operations in the field in Samdrup Jongkhar. The intention was for the SJI to learn from the local government's experiences of implementing projects at the gewog level, and to see where there might be further scope for collaboration between the government and the SJI, at gewog, thromde, as well as at district level. The recommendations of the workshop would then feed into the current as well as future five-year plans, and new forms of collaboration between government and civil society would be developed that could more efficiently and effectively further local development (see Appendix 18 for workshop schedule).

The workshop was conducted with the help of the SWOT (Strength, Weaknesses, Opportunities, Threats) analysis tool, where the 58 participants (see Appendix 19 for list of participants) were firstly divided into 11 groups based on their gewog belonging to identify and present the strength, weaknesses (internal capacities) opportunities, and threats (external factors) of their respective gewogs. Secondly, the SJI presented its key activities within its four programming areas 1) organic agriculture, 2) appropriate technology, 3) zero waste, and 4) youth engagement to date including future plans within these fields of work. The presentation ended by a SWOT analysis of SJI's overall programme and organizational capacities (see Appendix 20 for the SJI presentation excluding photos).

Based on the gewog and SJI SWOT analyses, the following themes were selected as the most pertinent topics/sectors for further discussion: 1) agriculture, 2) livestock, 3) rural-urban migration/youth, 4) mining/industry, 5) eco/agro-tourism, 6) crafts (textiles, cane and bamboo), and 7) waste management. The participants were divided into the theme groups based on their affiliation to the topics, for example the agriculture extension officers and vegetable farmers would constitute the agriculture group, the livestock extension officers and dairy farmers the livestock group, etc. (see Appendix 21 for list of theme group participants). The groups were then instructed to conduct a second, more in depth SWOT analysis for each particular theme, and present the findings to the audience. Subsequently also forms of cooperation were discussed, and the following agreements regarding areas and forms of collaboration were made:



- 1) Agreement on suggested areas of collaboration 1) agriculture (through contribution of 50,000 Nu per year per gewog for the IFAD-CARLEP Project), 2) livestock (ibid.), 3) rural-urban migration/youth, 4) agro/eco-tourism, 5) crafts, and 6) waste management (through upscaling of the SJI zero waste programme to Orong and Samdrup Jongkhar through BTFEC, Samdrup Jongkhar Municipality and other gewog contributions).
- 2) Agreement to establish a Theme Working Group for agriculture and livestock, which would be administered through a virtual communication network with Gewog Administrations over email and Wi-chat.
- 3) Agreement to conduct yearly multistakeholder meetings/Samdrup Jongkhar District Development Strategy Workshops in connection to Tshogdu meetings. SJI will make a formal request to the Chairman to institute this exercise.

The workshop was the first of its kind in Bhutan, involving multiple stakeholders from local government, civil society, local institutions, private sector, farmers groups, etc. in the local planning process, institutionalizing a new form of inclusive participatory consultative process for promoting a more effective and efficient approach to local development. Initiation and institutionalization of this grass roots level multistakeholder platform in the local planning process is unquestionably the main achievement of this exercise.

Another key achievement from the perspective of the SJI, was the introduction of the issue of waste on the local government agenda. As can be seen from the gewog specific SWOT analysis (see Appendix 22 for the full *SJ District Development Strategy Workshop Report*), waste was never initially mentioned as an issue, but after SJI's introduction of its zero waste programme and projects, it became a topic for discussion and consequently taken up as one of the main themes. As can be seen from the newspaper articles published on the event, sustainable waste management is also frequently mentioned as one of the key learnings by the participants (see Appendices 23-24 for the *Bhutan Today* and *Kuensel* articles).

A bit surprisingly, mining was often brought up by the participants as one of the key strengths and opportunities in the SWOT analyses, where a lot of the future potential for development in the district was foreseen to take place. Similarly, several participants brought up large scale agriculture and livestock production (mega farms) as an area of intervention which could contribute to income generation and at the same time addressing the issue of rural-urban migration and youth unemployment. While being aware of the environmental and social consequences of these fields of activity the participants, however, seemed to prioritize poverty reduction over these concerns.

As can be seen from the SWOT analysis, agro-and eco-tourism is another new field of intervention that is expected to grow increasingly over the coming years in the district. The SJI hopes to be able to contribute to these developments in the future by developing an eco-tourism programme in collaboration with the Gewog Administrations and other stakeholders.

The SJI sees the SJI District Development Strategy Workshop, attracting all local government leaders including broad representation from other stakeholders from the whole district as a final confirmation of achievement of the expected result from the original 2010 proposal, "documented deepening of partner relations, including project buy-in and participation at the community level, and concrete support (including financial and other resources) from the government of Bhutan for implementation of the recommended development initiatives". SJI hence also sees the workshop as a strong validation of SJI's work to date and its future plans.



Years 2 and 3

1. *To identify and implement on a pilot basis economic development initiatives to raise living standards according to the preliminary Development Strategy.*

As noted, this process was developed as contributions and recommendations to the District Development Strategy exercise conducted in March 2015 (see specific objective 8, year 1), based on the best practice pilot projects within all four programming areas that SJI has implemented over the past four years, originally identified by the Profile document (SJI's preliminary Development Strategy) and developed through action-research in the field.

While SJI's pilot economic development initiatives focussed more on research, training, capacity development, and raising awareness during the first three project years, large emphasis has, as previously described, been put on strengthening the economic diversification and income generating component of all SJI's programmes and projects during in particular the fourth project extension year, directly aiming at raising the living standards in the dzongkhag and making the projects more sustainable. Examples include sales of local vegetables, increased rice production through SRI, establishment of agroforestry nursery for sales of saplings, income generation through planting materials used to improve soil fertility, cash crop/asparagus production, marketing and sales of solar dried produce, income generation through recycling, compost production, sales of zero waste handicrafts, and training and employment of selected local youth in these projects including support to youth entrepreneurs.

The SJI anticipates that these initiatives will increasingly contribute to raising living standards among its beneficiaries, in particular women and youth, in a much more comprehensive and sustainable way than during previous years. At the same time, our confidence is not naïve, and we remain extremely mindful of the enormous wider challenges faced, for example, by the continuing powerful national and regional trends of rural-urban migration, imports of cheap goods from abroad, and more.

2. *To train selected farmers in sustainable farming methods based on recommendations from the preliminary Development Strategy and agricultural research.*

Based on recommendations in the Samdrup Jongkhar Profile and from the agriculture research undertaken to date, approximately 1000 farmers were trained in sustainable farming methods by Navdanya and OFAI between 2010-2013. During this time period, in total 9 sets of trainings were conducted (8 by Navdanya, 1 by OFAI) both on site in Samdrup Jongkhar and at Navdanya's organic training farm in India. The practices taught mainly focused on organic composting, cropping and pest control techniques, soil management, terracing, and seed saving.

Findings from the organic agriculture research had, however, identified that outreach and adoption rates of organic farming practices taught during SJI farmer trainings had been limited for various reasons including labour and resource shortages (see specific objective 3, year 1). Although the impact assessment of Navdanya trainings conducted in 2014 showed higher rates of adoption than originally anticipated, it was still clear that the SJI remained far from achieving one of its expected results stated in the 2010 project proposal: "training of at least half Samdrup Jongkhar farmers in



sustainable farming methods”, which in practice would mean training more than 10,000 farmers (total number of farmers is approximately 25,000 in the dzongkhag).

Consequently, in order to expand outreach and the degree of actual field implementation of farmer trainings, SJI in 2013 instituted a significant shift in its focus from direct training of farmers to training of agriculture extension officers, who interact regularly with farmers at the gewog level throughout the whole district. Building on the idea of strong involvement of AEOs and selected locations and/or individuals to promote outreach and implementation, SJI’s external evaluator suggested expanding this concept further into building a network of 7 farmer promoters in each of Samdrup Jongkhar’s eleven gewogs. The intent was for these farmer promoters to become model farmers who will work closely together with the AEOs on implementing organic farming practices and developing the capacity of other farmers in their respective villages. Implementation would be further facilitated by the set-up of five organic agriculture pilot impact areas in i) soil conservation (Serthi), ii) organic vegetable production (Dewathang), iii) organic rice growing (SRI) (Langchenphu, Pemathang, Phuntshothang), iv) agroforestry (Gomdar), and v) cash crops/asparagus growing (Orong), comprising 7 of the 11 gewogs in the district (see specific objective 4a, year 1).

This new farmer-to-farmer approach was launched during the joint Ministry of Agriculture and Forests-SJI Implementation Planning Workshop with AEOs in February 2014, and has since been reviewed twice during a Mid-Term Review meeting conducted on 9 September 2014, and during a Final Evaluation Workshop held on 17 March 2015. In total 70 farmer promoters have been selected and trained by AEOs, and farmer-to-farmer trainings through Farmer Field Days have been conducted in all 11 gewogs, increasing the number of farmers trained from 1000 to approximately 2000 in just one year (2014-2015).

In practice, the AEO trainings of farmer promoters were conducted through using the six large organic agriculture posters developed during the participatory multi-stakeholder workshop with MoAF, National Organic Programme (NOP), the SJI and selected farmers in 2013, demonstrating and explaining the most pertinent and relevant organic agriculture practices suited specifically to fit the Bhutanese context, involving: i) basic livestock husbandry, ii) soil and water conservation, iii) basic post harvest principles for cereals, iv) integrated pest management, v) integrated nutrient management, and vi) agrobiodiversity conservation (posters shared with IDRC in connection to submission of Interim Technical Report, September 2014). Where applicable, the farmer promoters have also been trained on the practices of the organic agriculture pilot impact areas. The Farmer Field Days, where the farmer promoters are to demonstrate and share their organic farming knowledge with other farmers in their respective communities have been conducted in all gewogs, involving various themes and practices, depending on the locality and farmer promoter. In general, the farmer promoters have trained on the practices of their respective pilot impact area but some promoters, like Mr. Tshering Gyalpo, have instead used their own farms and practices as demonstration and training sites (e.g. for showcasing and developing capacity of farmers on certain technologies such as composting or terracing). The farmer-to-farmer trainings through the Farmer Field Days have been crucial in paving the way for the larger scale outreach and implementation of trainings that SJI is aiming for, and the SJI expects that through the further expansion and intensification of the approach during the implementation of the IFAD-CARLEP Project, involving recruitment of an additional 100 farmer promoters within the coming four year period, will lead to SJI reaching its expected outcome of having trained at least half of Samdrup Jongkhar farmers within the coming two year period. For an example of how the farmer-to-farmer approach was set up in Dewathang, please see the *Farmer Promoter Manual* developed by the acting Dewathang AEO in December 2014 (see Appendix 25). The manual is an attempt to formalize the approach to facilitate implementation and upscaling to other gewogs and districts.



During the project extension year, additional training/resource material has also been developed upon recommendation of Dr. Gonsalves. Firstly, the agriculture team has set up an organic resources database (ORD) of the best practice organic technologies/practices/agrobiodiversity in the dzongkhag, based on data collected from each gewog through AEOs, village leaders, and farmers (see Appendix 26 for the *Samdrup Jongkhar Organic Resources Database*). The intention is that the database will be a living document that will be periodically updated with new information, and serve as a rich source of best practice knowledge that through being documented could be made more easily available for wider dissemination and adoption in the district. Secondly, the team has developed organic agriculture tutorials, where specific best practice sustainable agriculture technologies, derived from the ORD, are documented in detail. So far tutorials have been prepared on cow feed (*Chettri's Cow Feed Recipe*), pit compost (*Preparing Pit Compost*), and on cover cropping (*Rice Bean Production*) (see Appendices 27-29). Similarly the idea is here to facilitate sharing of best practice knowledge more widely in the dzongkhag and beyond. Both the ORD and the tutorials will be uploaded on the SJI webpage and Facebook page, and will also be shared with AEOs, other MoAF/NOP staff, and farmer promoters. Finally, the team has produced an extensive amount of audio visual case stories on sustainable farming methods. The first series is called *Local Knowledge, Local Resources* and the second is *The Expert Series*. In the first video-series SJI has documented agriculture best practices by interviewing farmer promoters and farmers, and the second series features interviews with national and international sustainable development and agriculture specialists. The videos are uploaded on the SJI Youtube channel (see Appendix 7) aiming at reaching a wide audience both domestically and internationally, serving as practical training/resource material for agriculture stakeholders and at the same time as a marketing and fundraising tool for the SJI.

As can be seen, the SJI has increasingly deepened its collaboration with Ministry of Agriculture and Forests/NOP over the years as a crucial means to ensure sustainability and upscaling of SJI's organic agriculture programme. Uptake of SJI's activities both at the municipal and dzongkhag policy level has been significant, and has translated into successive alignment of the government's agriculture programme and budgets with SJI's organic agriculture programme, with both organic farming and the farmer-to-farmer approach now being highly prioritized within the Municipality and Dzongkhag Administrations. Examples include the Municipality's ban on the chemical fertilizer Urea and establishment of a market shed in Dewathang, where farmers are increasingly and successfully selling their local organic produce, and the strong involvement of agriculture extension officers and other MoAF/NOP staff in implementing the farmer promoter model at the dzongkhag level. The integration between SJI and MoAF agriculture programmes will be further intensified from September/October 2015, when the joint SJI-MoAF IFAD-CARLEP Project will commence under the supervision of Mr. Lungten, who currently works both as the Dewathang AEO and as the SJI Agriculture Coordinator, strongly facilitating coordination between the Ministry and the SJI by preventing potential overlaps and promoting synergies (the Samdrup Jongkhar district component of the IFAD-CARLEP Project has been drafted by the SJI for the dzongkhag, but will primarily be implemented by AEOs/farmer promoters and other MoAF staff and stakeholders, with the SJI's main role being to monitor, evaluate, and document the farmer-to-farmer approach). In this project even financial support has been agreed by all the Gewog Administrations in the district through allocation of part of their agriculture budgets/Gewog Development Grants to implementation of the IFAD-CARLEP Project.



3. *To train farmers in composting methods (particularly use of animal manure) and to implement effective use of composting in every district in the province.*

While segregation of biodegradable waste for composting is one of the major components of the SJI zero waste programme and has indeed been systematically taught in both SJI's zero waste and organic agriculture programmes to date, the SJI similarly teaches that the biodegradable waste could also be used for other purposes, like animal feed, kitchen gardening, or bio-gas. While the separation of biodegradable from non-biodegradable waste is fundamental, the actual application of the biodegradable waste varies depending on the specific characteristics of the community. In other words, SJI trainings on biodegradable waste go well beyond the original composting focus.

However, SJI had up until 2013 not implemented these methods in every gewog in the district, as originally proposed in 2010. Instead, SJI has primarily sought initial success in two pilot villages, Dewathang and Wooling, which are now becoming training sites for other gewogs and communities, facilitated by the orientation and exposure visits conducted to these sites during this reporting period. As with other components of the 2010 proposal to IDRC, SJI has learned through experience that some of the original hoped-for targets were overly ambitious, especially in reaching the whole district within a short period of time. Instead SJI has found that focussing and seeking success in designated pilot projects to demonstrate and prove the viability of the methods on the ground is a far more effective strategy that lends itself very well to the current expansion of the organic agriculture programme through the farmer-to-farmer trainings that has taken off during the final project year.

Apart from drawing from practical experiences in managing biodegradable waste in Wooling and Dewathang, the farmer-to-farmer approach has also capitalized on the fact that by tradition and as well as introduced and improved through SJI farmer trainings, several farmer promoters and other farmers in the district are already practicing composting with animal manure, as one of the main findings in the impact assessment of the conducted Navdanya trainings also confirms. As part of the AEO trainings of farmer promoters during the past year, various forms of composting including use of animal manure and vermi composting have been a recurrent theme, which has subsequently also been shared and demonstrated through trainings conducted by farmer promoters with other farmers in their respective communities during Farmer Field Days. While most farmers are by now aware of the importance and benefits of composting, there is still, however, reluctance towards implementing the practice due to time constraints and lack of monitoring and follow-up by trainers. The SJI anticipates that monitoring and follow-up trainings will be significantly facilitated and improved through the established network of 70 farmer promoters, which during the coming four years will expand to 170 promoters, thereby hopefully fulfilling the objective of having implemented effective use of composting in every gewog in the dzongkhag within a two year period.

As part of the pilot testing in Dewathang, some farmers have also taken up larger scale production and sales of high quality compost to other farmers, urban residents, and institutions, led by farmer promoter Mr. Tshering Gyalpo, who has practiced and refined the composting methods taught by Navdanya over the past four years with the support from SJI. Using a mixture of animal manure and cow urine together with green and brown biomass (see Appendix 28 for pit compost tutorial), Mr. Tshering Gyalpo now sells his compost for Nu. 10 per kg, having made a profit of Nu. 65,000 in just one year. This has inspired other progressive farmers in the nearby area to take up commercial composting themselves based on the experiences of Mr. Tshering Gyalpo, who have trained



interested farmers in his method of composting at several occasions. The SJI sees this initiative as one of its most promising and pertinent economic diversification projects, as demand is high and could spur interest from more farmers to take up composting practices, thereby improving soil fertility and production (which is particularly important in organic farming as it works as a substitute for chemical inputs, e.g. Urea), while at the same time providing income generation opportunities for farmers.

4. *To contribute to reduction of rural-urban youth migration by supporting innovative initiatives in fields like appropriate technology applications.*

The SJI youth engagement programme works through a multi-pronged approach to try to contribute to reduction of rural-urban youth migration, by supporting initiatives that link youth with the job market in a meaningful way by fostering creativity and entrepreneurship, while also promoting self-confidence and dignity of labour.

Firstly, the SJI strives to engage students at various research institutes in its programmes and projects, to offer an opportunity for students to apply their theoretical knowledge in practice and equipping them with skills and confidence to develop creative and innovative solutions that can effectively address community/societal problems. As previously mentioned, one such partnership was established with the Jigme Namgyel Polytechnic in 2011, where students so far has actively participated in and contributed directly to the design and implementation of the solar drier, rainwater harvesting, and waste segregation station projects (see specific objective 5, year 1). A partnership with Gaeddu School of Business was set up in 2012, where students have continuously conducted internships with the SJI during their winter breaks ranging from administrative and research work, to practical implementation work in the field. During this reporting period, another partnership was established with Sherubtse College, where students of media studies have been engaged in developing audio visual knowledge products based on SJI's programmes and projects. Under the supervision of Mr. Tshewang Dendup, the students completed a narration of the *Zero Waste Training Manual* into English and Dzongkha, and produced a ten minute documentary: *A story from Dewathang* of Ms. Sonam Choden's experience from interning with the SJI and thereafter becoming a youth entrepreneur by setting up her own zero waste handicraft business in Dewathang. The videos have been produced for screening on national TV, Bhutan Broadcasting Service (BBS) as part of SJI's awareness and marketing efforts, and are also shared on Youtube (see Appendix 7 for Samdrup Jongkhar Initiative Youtube channel).

Secondly, the SJI conducts camps and workshops that enhances creativity and develops relevant job skills led by professionals with the highest standards, including some of the nation's top artists and journalists. By bringing such innovative high quality projects for youth into semi-rural settings like Dewathang, SJI is working to lay the ground to provide services and opportunities that can indeed compete with the ones in the urban areas.

The *Youth Art Camp* was SJI's first youth engagement activity held in January 2012, conducted by Bhutan's leading artist Mr. Kama Wangdi and senior students from the world-renowned Kala Bhavan Academy of Visva Bharati University in India. For ten days 68 students from throughout the whole district were exposed to various art techniques, ranging from zero waste art, drawing, acrylic, water colour, and clay sculpturing, just to mention a few. As an extension from the Youth Art Camp and upon request from the students, the zero waste art component continued on a bi-monthly basis as part of the zero waste programme in the form of recycled art/crafts workshops



during 2012. These workshops were conducted by SJI's zero waste consultant Ms. Taylor Cass Stevenson from the United States, and were attended by hundreds of Samdrup Jongkhar youth at 8 occasions in Dewathang and Wooling respectively.

The *Youth Media Camp* was conducted for five days in January 2013 by Mr. Phunthsho Wangdi, the chief editor of Bhutan's national newspaper, Kuensel, and Mr. Tashi P. Wangdi, who has trained the present corps of young journalists working in various media houses in Thimphu. Apart from developing the capacity of 33 students from the district in basic journalism and various media reporting techniques, the Youth Media Camp also led to the establishment of newspaper reading points set up by SJI at three places in Dewathang, where administration of the newspapers is now run by youth volunteers. The community reading points serve as mini-learning centres for promoting access to information and improving reading skills among Dewathang's youth and other community members in combination with the recently established community mini-library set up at the SJI office, also managed by youth volunteers. Funding for the Youth Media Camp was obtained by Mr. Phunthsho Wangdi as part of the Bhutan Alumni Project competition administered by the United States Embassy in New Delhi.

During the coming year, the plan is to gear the camps and workshops more towards developing basic practical capacities that more concretely can contribute to linking the youth with the job market, thereby addressing the issue of youth unemployment and rural-urban youth migration more directly, e.g. through conducting skill enhancing CV writing workshops, job interview workshops, etc., but also to expose students to more practical work in the field and connect youth with various forms of farm work through on-the-job training on farms, as the majority of job opportunities are still to be found within the agriculture sector in the district.

Thirdly, the SJI set up an internship and volunteer programme in 2014 upon recommendation by the external evaluator, which will similarly more directly target the issue of youth unemployment and rural-urban youth migration, while at the same time addressing SJI human resources needs. So far, 9 local youth interns (Mr. Nima Dorji, Ms. Dorji Dema, Ms. Sonam Choden, and Ms. Dorji Sangden, Mr. Phunthsho Gelek, Ms. Kesang Lhaden, Ms. Tshering Dukar, Ms. Kinzang Choden, and Ms. Yangchen Dema) have been, or are currently employed by the SJI to assist in the implementation of the organic agriculture and zero waste programmes, as well as in office administration and maintenance. The internships are co-funded by the Ministry of Labour and Human Resources, as part of their Pre-employment/Internship programme instituted to reduce youth unemployment in the country, and will continue during the coming year with 5 interns employed at a time in the office on a three monthly basis. Volunteers have been recruited ad-hoc to carry out various specific tasks, such as helping out with larger scale field trips, workshops, setting up a system for library maintenance, and more. The SJI expects to recruit 48 more youth volunteers during the coming year.

The interns and volunteers have made considerable contributions to the SJI both externally in the field and internally in the office, enhancing the scale and efficiency of SJI activities and operational work, while at the same time learning and developing their own capacity and skills. Two SJI interns, Ms. Sonam Choden and Ms. Tshering Dukar, even started their own zero waste businesses in Dewathang upon completion of their internships, engaging in scrap dealing and zero waste handicrafts in collaboration with the Dewathang women's group, after having been exposed to the zero waste programme and being trained by Ms. Cass Stevenson at the SJI. This is an excellent example of how SJI can manage to develop confidence, capacity and skills among local youth to the extent that they can become innovative local entrepreneurs in their own right, showing sustainability beyond SJI's support. It is hoped that the documentary on Ms. Sonam Choden will



inspire more youth to take up entrepreneurial activities at the national level, thereby further contributing to reduction in youth unemployment.

5. A **broader objective** throughout the three-year project is to monitor and evaluate closely (a) the activities listed above; (b) the specific development initiatives that will emerge from the first year's research; and (c) the degree to which economic, social, agricultural, and broader environmental outcomes that are in accord with GNH principles and practices are attributable to project initiatives.

The results from the SJI Impact Assessment conducted in October-November 2014 for SJI SJI's programmes and projects including SJI overall performance are summarized in separate sections of the report (see specific objective 7, year 1 and overall objective).

Overall objective

The overall longer term development goal of the Initiative is to raise living standards in Samdrup Jongkhar rapidly and establish food security and self-sufficiency, while fully protecting and enhancing the natural environment, strengthening communities, stemming the rural-urban tide, and fostering a cooperative, productive, entrepreneurial, and self-reliant spirit that will break the culture of dependence and endemic poverty that have characterized the region.

During the impact assessment exercise (see specific objective 7, year 1), SJI's stakeholders were asked to assess to what extent they thought the overall objective of the SJI had been achieved, which in total summarized to an average of 7,3 on a scale from 1-10. This indicated a fairly positive view on SJI's overall achievement of its stated objective from the side of SJI's partners and beneficiaries. However, rather than achieving the objective within a certain period of time, the overall objective should be seen as a long-term aim towards which the SJI should continuously be striving.

While SJI's programmes and projects are all interlinked, the organic agriculture programme and zero waste programmes were according to the impact assessment considered to have had the largest impacts and contributions to the overall objective, in particular through its interventions in awareness and capacity development. Job creation and capacity development of local youth through the SJI Internship Programme were also perceived to have positive long-term impacts. Other factors that were frequently mentioned having strongly contributed to the overall objective were the social capital base, community support and partnerships, especially with local government, that the SJI had managed to establish over the years, as well as the so called "Rinpoche effect", referring to how the vast respect and influence that the founder of the Initiative enjoys among Samdrup Jongkhar dzongkhag citizens and nationwide perhaps more than any other factor has brought tangible outcomes and impacts on the ground in Samdrup Jongkhar, by having paved the way for the establishment of the SJI, the initiation of all SJI's programmes and projects, as well as for successful implementation of the programmes and projects through the dedicated support and commitment to the founder from stakeholders and from SJI staff. Lastly, the fact that the SJI is based in the field in the midst of its beneficiaries, in contrast to other NGOs in the country, has made all of the above possible through the proximity facilitating effective field presence and closeness to its stakeholders, developing a strong sense of local ownership and infusing a new element in the democratic fabric in the society, where communities and civil society work together as agents of change.



development, it is delightful to see JNP take full ownership and responsibility for the new CAT, which has now become recognized as a “Centre of Excellence” of the Royal University of Bhutan, just as we are very pleased to see Lauri and Serthi villagers having developed capacity to build, maintain, and own their solar driers. Moreover it is very encouraging to observe that several former SJI interns using the skills and capacity that they have acquired during their internships for taking up entrepreneurial activities within zero waste.

Through capacity developing interventions, the SJI team has also clearly developed its own capacity at least as much as the capacity of beneficiaries of SJI activities, and immense progress among the SJI team can be observed in substantive knowledge of subject areas, local conditions, and local actors and resources, as well as in managerial, technical and administrative skills. Internal capacity was in particular strengthened during the course of the last project extension year through SJI having taken over key responsibilities from GPI Atlantic in relation to IDRC in areas such as technical and financial reporting as well as fundraising and proposal design. The SJI has indeed managed to secure core funds for the coming year through Maitri Trust (see Appendix 30 for proposal), for the organic agriculture programme through IFAD-CARLEP for the coming four years, for the zero waste programme for the coming year through BTFEC, including additional funds for these programmes through the Samdrup Jongkhar Gewog, Municipality, and District Administrations, private corporations, as well as from Ministry of Labour and Human Resources for the youth engagement programme.

In this process, SJI also needs to highlight the importance of matching project objectives with internal human resource capacity during project design to facilitate achievement of objectives. In order to support effective implementation on the ground, we have also learned the importance of adjusting our development activities to local needs and context. This is a challenging task, but research can here play a vital role in addressing local realities so that the intervention becomes as relevant as possible, and ownership and sustainability can be ensured.

Policy implications

Given its limited human resources, SJI has understood the vital significance of integrating and mainstreaming its programmes and projects into government policy. Larger scale local policy uptake does indeed facilitate replication and upscaling in Samdrup Jongkhar district while at the same time ensuring local ownership and sustainability. The SJI also recognizes the role of media and development of knowledge products in this process.

During the past year, SJI’s pilot projects have been assessed, deepened and consolidated in order to make them sustainable and ready for replication and upscaling. Although some successive achievements in local policy uptake had already taken place in organic agriculture and zero waste during the first three project years, a much larger scale uptake of SJI’s programmes and projects, in particular with respect to the organic agriculture programme took place during the fourth project extension year, where collaboration with Ministry of Agriculture and Forests and NOP has now become firmly and strongly established through the joint upscaling of the farmer promoter approach in the district, and will be further intensified through the upcoming joint Dzongkhag Administration-SJI agriculture project supported by IFAD-CARLEP. The zero waste programme has inspired policy uptake both locally and nationwide, and will be further upscaled in the district through support from BTFEC, and through strong policy uptake by the Municipality and several Gewog Administrations. SJI’s contributions and recommendations to the Samdrup Jongkhar District



Development Strategy with local government were presented during the consultative workshop in March 2015, and spurred wide ranging interest and support from Gewog Administrations to strengthen collaboration with the SJI on a broad set of issues, including waste management/zero waste, which had so far not been a theme on the agenda/priority for most gewogs. The SJI will continue its sustainability and upscaling efforts during the coming years through continued intensified collaboration with local and national government to promote policy uptake.

SJI is bringing all these lessons learned with us into to the programming and organizational work for the coming years ahead, beyond IDRC support, and deeply acknowledges and expresses our gratitude to IDRC and Loredana Marchetti for your strong support to the SJI throughout the years, and in particular for providing us with the opportunity to learn from Dr. Gonsalves’s wisdom and guidance during his external review, and for approving this crucial fourth project extension year, where SJI finally got to know itself and became a fully-fledged organization both from a programmatic and organisational point of view.