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# **Impact Assessment of Capacity Building through Tracing Learner Participants: ICRISAT Village Level Studies, 1975-2013**

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**International Crops Research Institute for the Semi-Arid Tropics**

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# **Impact Assessment of Capacity Building through Tracing Learner Participants: ICRISAT Village Level Studies, 1975-2013**

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## **Abstract**

The longest longitudinal household data in the world generated by ICRISAT under the title 'Village Level Studies' (VLS) from 1975 to present has proven to provide excellent insights on multiple aspects of village dynamics. Many researchers, referred to in this study as 'Learner Participants', not only utilized the VLS data for analysis, but also received training, exposure to base villages and research supervision under village level studies. VLS is one among the few longitudinal panel data sets in the world on village economies which has been analyzed extensively by the scientific community. As a result new development theories are confirmed, policies have been recommended, and new technologies developed to suit semi-arid tropics (SAT). This study delves specifically into the capacity building as well as the utilization of the built capacities of learner participants who were associated with VLS at various points over the time span of 1975 to 2013.

Using a robust methodology which encompasses both qualitative and quantitative methods of data collection and analysis, the focus of the paper is on the influence of VLS in enhancement of individual as well as institutional capacity of the scholars, and its utilization. A tracer study was designed to track more than 200 learner participants through a comprehensive survey using online and offline tools and insights from ACIAR frameworks and guidelines. This study is supplemented with case studies for capturing better the impact of VLS training on human scientific capacity. This study also provides important insights on the usefulness of the tracer study methodology in elucidating the influence and impacts of research training in general and VLS in specific on human scientific capacity building over time.

**Keywords:** Tracer study methodology, Human scientific capacity building, Impact assessment, Village level studies

**JEL Codes:** B41, B49, Y20

# **Impact Assessment of Capacity Building through Tracing Learner Participants: ICRISAT Village Level Studies, 1975-2013**

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## **Introduction**

Since the inception of the capacity development program at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in 1974, numerous scientists and students from across the world have collaborated with the institute in various learning activities. One of the most popular areas of study was the Village Level Studies (VLS) which dates back to 1975. Today, VLS is a single dataset that provides an understanding of the socioeconomic situation among village households of developing countries. The VLS comprises of information on changing institutions and market access, governmental and non-governmental interventions, technological advancements and climate change, which all are relevant from policy perspectives.

VLS started in 1975 collecting longitudinal panel data from 240 households across six villages in Telangana and Maharashtra, India. During 1980-81 to 1984-85, 160 households were added to the database from four villages of Madhya Pradesh and Gujarat, India. The same period also witnessed the inclusion of 250 households across 10 villages of Burkina Faso and Niger. The data was collected on a monthly basis, all year around, on various socioeconomic aspects by investigators residing fulltime in the villages. Since 1985 to 1999, the data were not collected frequently; however there were special purpose surveys implemented on aspects of nutrition, social networks and livelihood options. The VLS teamed up with the Bill & Melinda Gates Foundation (BMGF) in 2009 under the project titled '*Tracking change in rural poverty in village and household economies in South Asia*', commonly referred as '*Village Dynamics in South Asia (VDSA)*'. VDSA collates data from 42 villages covering 1,824 households across Bangladesh and India. In fact, VDSA is an in-depth continuation of VLS. To avoid confusion, the term VLS is commonly used in this study but represents both VLS and VDSA aspects.

The outputs and outcomes of VLS are many, including accelerating technology adoption, guiding research priority settings, influencing rural policy development and

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building capacities among VLS researchers. However, this study specifically looks into the capacity building aspects of Learner Participants (LPs)<sup>2</sup> associated with VLS. It is expected that VLS has not only enhanced the human scientific capacity of learner participants but also added to the stock of scientific knowledge.

## **Purpose of the study**

The objective of this study is to track down the learner participants who have availed one or the other research opportunities facilitated through VLS, in order to understand the contribution of VLS in enhancement of individual as well as institutional capacities of them. The specific information we sought includes:

- a. How diverse are the VLS learner participants?
- b. How have the VLS learner participants benefited from the research opportunities and training provided through VLS initiatives?
- c. How have learner participants' associations with VLS contributed in expanding the frontiers of scientific knowledge?
- d. How these scientific capacities evolved through the VLS are utilized, bringing benefits to personal, organizational and at a wider community level?

## **Tracing the Capacity Building: Concepts and Methodology**

Conventionally capacity building is a concept closely related to education, training and human resource development (Enemark 2003). UNDP defines the term *capacity* as “the ability of individuals, institutions and societies to perform functions, solve problems and set and achieve objectives in a sustainable manner” (UNDP 2007). *Capacity development* is defined as “the process through which individuals,

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<sup>2</sup> The Learning Systems Unit (LSU), an arm of Knowledge Sharing and Innovation (KSI) program, is a unit facilitating capacity development activities at ICRISAT. LSU is instrumental in facilitating mentorship at ICRISAT for young scientists and research scholars from partner organizations and various universities. These scholars are officially referred as Learner Participants, and are categorised as (a) Research Fellows or Visiting Fellows, (b) Research Scholars, who are usually graduate students, and (c) Interns who are students joining at ICRISAT, often for a short span, to acquire a practical work-study experience.

organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time” (UNDP 2008). “*Capacity building* is a complex notion – it involves individual and organizational learning which builds social capital and trust, develops knowledge, skills and attitudes, and when successful, creates an organizational culture which enables organizations to set objectives, achieve results, solve problems and create adaptive procedures which enable it to survive in the long term” (DFID 2008).

However, this study specifically looks into the capacity building aspects of VLS researchers, and hence the capacity building related to human capital. OECD defines *human capital* as “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (OECD 2001). Contextual to this, the present study follows the definition of capacity building provided by Gordon and Chadwick (2007), who indicates that “*capacity building* encompasses training and all other forms of learning that enhance the knowledge, understanding and competencies (skills) of individuals.”

Capacity building is a complex activity, whether at an individual or at a project level. It is usually difficult to attribute its success or failure as well as its value to one specific factor alone. Often the evaluation of capacity building activities in a project ends with confirming on whether the objectives of the project are met. A few successful efforts are seen in the literature which looks beyond this usual practice, by enquiring into the utilization of capacities built and its impacts. In those lines, Gordon and Chadwick (2007) provides the case study of a three-year postdoctoral fellowship funded by the Australian Centre for International Agricultural Research (ACIAR) as a component of its pigeonpea improvement projects in Australia. The project was identified with estimated benefits of A\$70 million for an estimated cost of A\$2.5 million. In estimating the impact and value of capacity building happened through the postdoctoral fellowship, they took an approach of valuing first the impact of supply shift of pigeonpea due to the new research and resulting technology, and secondly apportioning a share of benefits to capacity building.

The VLS has been a platform for wide variety of training opportunities for researchers since 1975. This possibly means that a wide variety of skills are developed by the researchers which have been utilized in many areas of technology and policy

development. Furthermore, there have often been additions to the stock of scientific knowledge through these training activities. Hence, following the Gordon and Chadwick (2007) approach, a comprehensive assessment of the impact of VLS would involve initially estimating the welfare changes associated with all these advances in research, technology and policy development; then attributing a share of these total gains to VLS training or capacity building activities. This ideal impact assessment strategy is not a practical one for assessment of the built VLS capacity for various reasons including the number and diversity of VLS researchers, and the time span of VLS itself.

The approach followed in this study hence is to first conduct a tracer study of those who have undertaken training under the VLS project. VLS learner participants make one easily definable group of researchers who received formal training under VLS. At the later stage, the tracer study will be complemented by case studies and in-depth interviews so that plausible examples of VLS influences on capacity building and utilization can be presented.

This approach is adopted from Kumar and Nacht (1990) who assessed the impacts of the USAID-Nepal training of over 4,000 Nepalese in the United States, India and other countries undertaken over three and a half decades from 1952. Aiming to establish a more evidence based link between training and productivity outcomes, the study was conducted in three parts on three levels namely individual, institutional and societal. The first part was the survey among a sample of those who had participated in training programs, trying to capture personal outcomes attributable to training. A set of organizational case studies focusing on the impact of the USAID-Nepal supported training on the development in Nepal formed the second part. Here the focus was on several institutions in Nepal where a significant percentage of staff had been selected for these sponsored trainings. These were complemented in the third level with a series of in-depth interviews with key decision makers across Nepalese society regarding their impressions of the impact of the training program. The three parts conducted as three different studies provided a clear picture of the nature and diversity of USAID-Nepal's training programs and its participants, on the influence of these programs on Nepalese institutions, and on the impact of these programs on the Nepal's socioeconomic development. The consolidated final study



report concluded that these trainings infused considerable life into Nepal's institutions and its multiplier effects, which are far beyond the aggregate efforts of the individuals involved, resulted in speeding up the country's economic development.

A similar study to Kumar and Nacht (1990) was that of Effective Development Group's (EDG 2006) which looked into the impact of 21 capacity building activities sponsored by the Crawford Fund over the ten years prior to 2006 in Vietnam. Using a methodology comprising of two steps, namely (a) the tracer study of 132 trainees and (b) the in-depth interviews of a sample of those who actually responded, EDG attempted to establish a pathway between capacities built and capacities utilized in the study. In the first step, through a survey questionnaire consisting of both multiple choices and open ended questions, they tried to gather quantitatively and qualitatively the perceptions of trainees on the quality of training, and regarding the capacities they developed benefitting both personally and their organizations. 73 among the 132 responded to the survey questionnaire which was provided with the options of answering electronically, over the phone, or by using pen and paper. Some of those who rated their training either high or poor were personally interviewed to gain in-depth insights on their different training experiences and its influences. The study results showed 90 percent of the respondents indicating improved performance at work place due to their training. Nearly 30 percent suggested that their organization had changed for better as a result of these Crawford Fund training programs. 90 percent of the respondents found training relevant to the work and the skills acquired were continued to apply for some time after the training ended. The EDG study showed in general that the Crawford Fund's activities were regarded very useful and effective, with having positive impact on the workplace. The EDG approach of using tracer study to assess capacity building aspects is used in Gordon and Chadwick (2007) to look into a case study on water management in Vietnam. It is also used in other ACIAR impact assessment studies on capacity building (Longmore et al. 2007, Fisher and Gordon 2008).

By design, 'tracer studies' do not provide a quantitative estimate regarding the value of human capacity building. Nevertheless, given the subjective nature of alternative quantitative approaches, well designed tracer studies on individuals and the institutions where they work, have the potential to identify strong causal pathways

between training and efficiency gains for at least a sample of individuals, which possibly could lend support for more quantitative studies. The tracer studies might be useful in identifying the case studies for more intensive quantitative analysis. In this sense, the tracer studies may provide an indication on where to apply the Gordon and Chadwick (2007) approach enabling the researchers to attribute a share of the shift in total benefits emerging from a range of training and research opportunities to a specific capacity built.

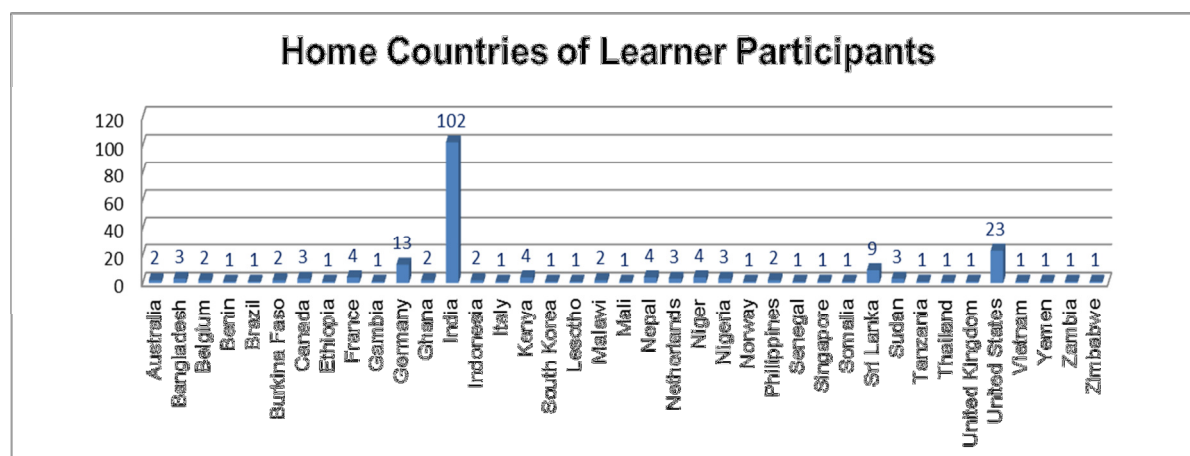
As discussed before, the objective of this study has been to assess the impact of the training opportunities facilitated to learner participants through the VLS. Guidelines from Gordon and Chadwick (2007) are adapted while preparing the survey questionnaire for the study. Further, by following Kumar and Nacht (1990) and EDG (2006) methodology with necessary modifications, the study asks respondents to provide specific examples regarding how they have utilized the built capacities from their VLS experience. The study place a stronger emphasis in collecting evidence to support claims about the utilization and impact of capacity built through VLS training opportunities.

## **Description of the Population, the Survey and the Sample Surveyed**

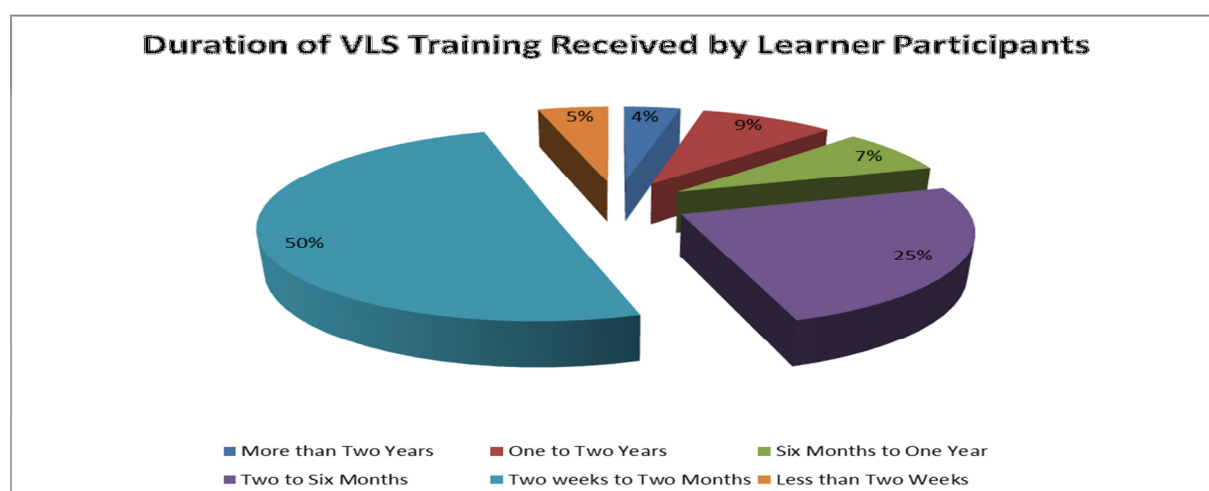
The list of VLS learner participants was obtained from ICRISAT's LSU-KSI (Learning Systems Unit, an arm of Knowledge Sharing and Innovation). It consisted of 211 learner participants from 39 countries (Figure 1) with 48 percent from India, 23 percent from USA and 13 percent from Germany. They were from more than 42 institutions and 37 percent of the 211 learner participants were females. The age, education and experience of learner participants ranged from school students to PhDs. Three Borlaug-Ruan Interns to ICRISAT from 'The World Food Prize Foundation' since 2010 are the youngest among the 211. 42 percent among the VLS learner participants were doing their Bachelors (BA/BSc/BTech or equivalent) while registering with LSU; among others, 6 percent were PhD Scholars and 32 percent were graduate students enrolled for MA/MSc/MTech or equivalent courses. 4 percent among the population were pursuing their secondary education. There is also diversity in terms of period of VLS training and exposure (Figure 2) received by the population of this study. 25 percent among them received training for a period of two to six months, 20 percent availed the training opportunities for more than six months.

One half of the population of the study received exposure to VLS for a period of two weeks to two months.

**Figure 1. Home countries of Learner Participants.**

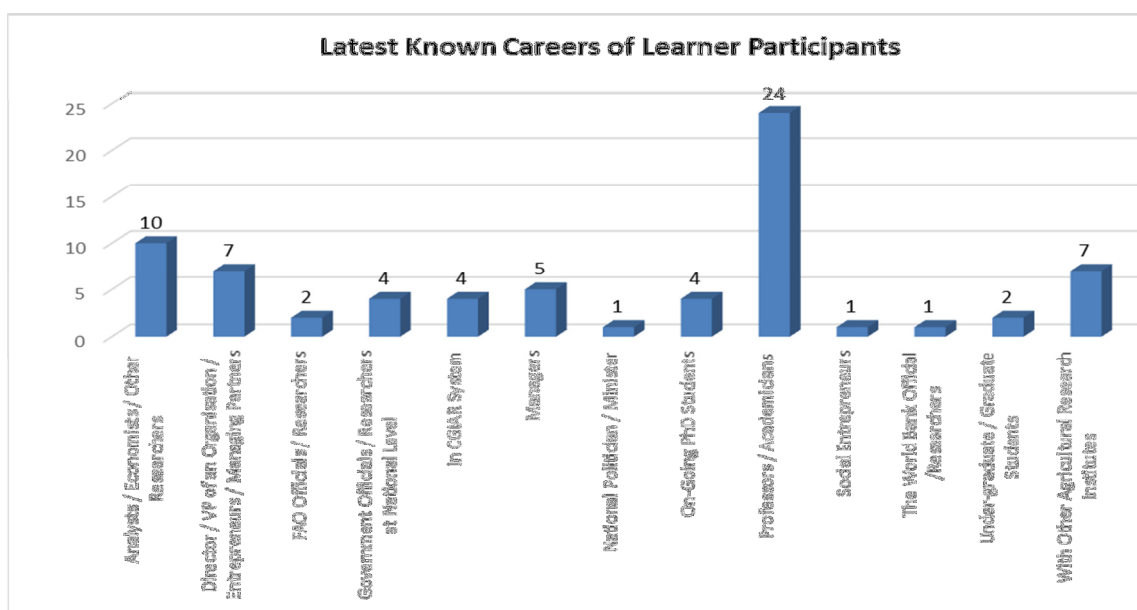


**Figure 2. Duration of VLS training received by Learner Participants.**



An effort is made to trace all 211 learner participants online using information from LSU database. Even though not all learner participants were successfully traced, 10 research analysts, 2 FAO officials, 5 managers, 1 national politician, 4 PhD scholars, 1 social entrepreneur, 24 academicians and 7 senior officials including directors in various organizations were identified. Figure 3 exhibits the latest career positions under broader classifications of 72 successfully traced learner participants online. However these latest known career positions of learner participants cannot exclusively be attributed to VLS training alone.

**Figure 3. Latest known careers of learner participants.**



The target population in our study was all the 211 VLS learner participants. However, the study team could only trace back the e-mail ids of 110 learner participants; hence the sample for this study. These were all sent the survey instrument through emails. They were provided with the option of responding to the survey either through fillable PDF forms or through an online survey questionnaire prepared using SurveyMonkey. The respondents were followed-up to four times after the initial mail, over a period of three months. Each follow-up provided with a few new responses. This paper reports the responses we have received till the end of November 2014. At the end of November 2014 there had been 39 responses, a response rate of 35 percent. Among 39 respondents, 15 (38 percent) are females. Indians form the biggest nationality with 56 percent of respondents. Americans make 18 percent of the respondents while Canadians and Netherlanders form 5 percent each. The survey also has 3 percent of total respondents each from Argentina, Australia, Belgium, Indonesia, Nigeria and Taiwan. These 39, all of whom responded, were from a total of 28 institutions while they were receiving training at ICRISAT. Among the 39, 13 percent were affiliated to Gokhale Institute of Politics and Economics in India while they received training at ICRISAT. 10 percent of the respondents were from Cornell University in USA, 8 percent from Delhi School of Economics in India, and 5 percent each from Acharya NG Ranga Agricultural University and Indian Institute of Technology Bombay in India.

Five among the 39 respondents however have not provided any further responses to the survey questions indicating that they used the VLS peripherally in their research. Hence the number of respondents who received substantial training under VLS would be 34 and the same is considered during the analysis in this study.

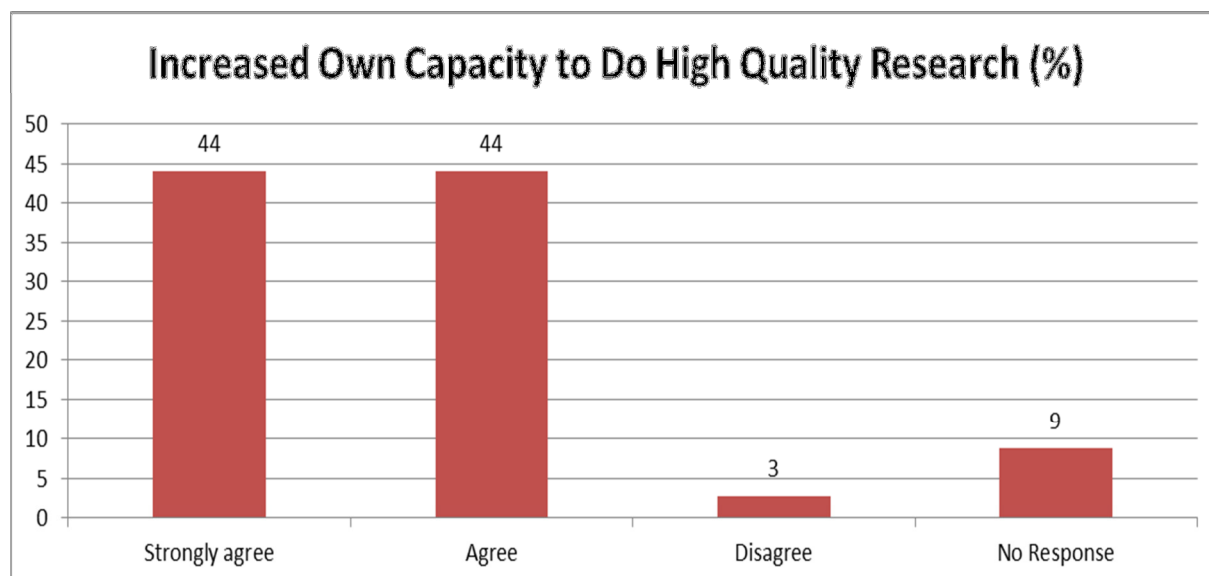
## **Observations from the Tracer Survey**

The outputs and outcomes from the VLS training in terms of human capacity building and contributions to the stock of knowledge, captured from the tracer survey, are presented in this section. Direct and indirect influences at personal and organizational levels and upon wider community are also discussed in this section by looking into the utilization aspects of built capacities and additions to the stock of knowledge.

### **Contributions to Human Scientific Capacity, Personal Outputs and Outcomes**

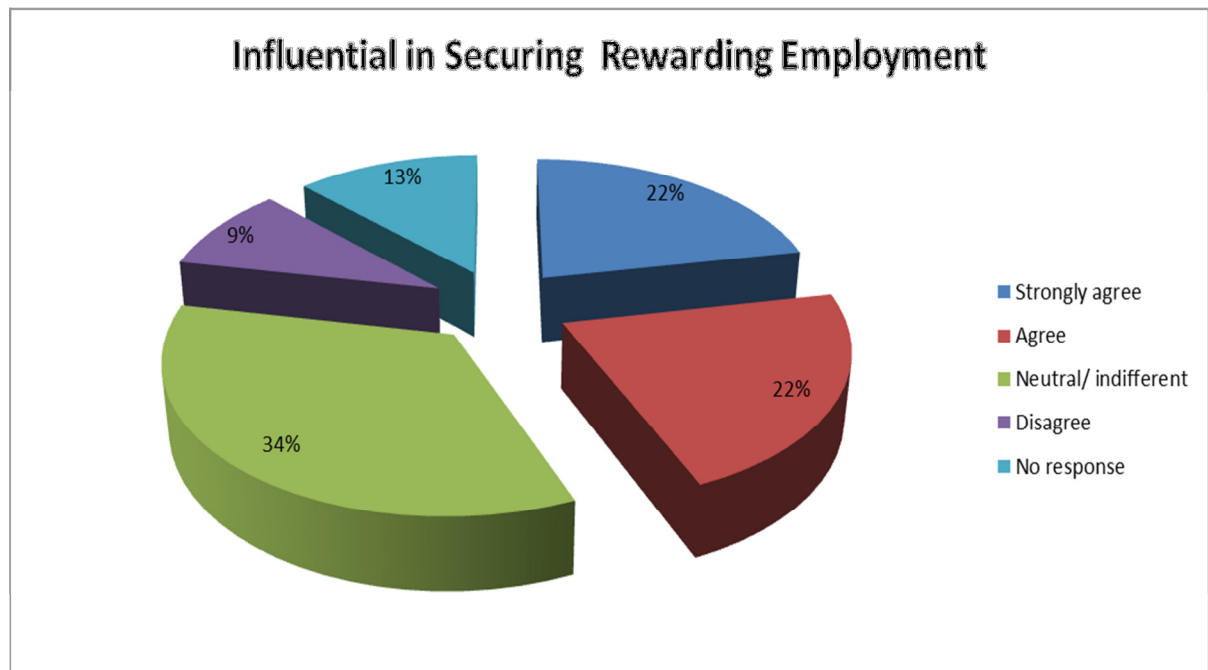
Responses received in the survey acknowledge the influence of VLS in research skill development of learner participants. 88 percent of the survey respondents indicated that the training, research opportunities and facilities provided through the VLS initiatives helped them in increasing their own capacity to do high quality research (Figure 4). The responses also show that VLS provided avenues for 85% of the respondents to conduct research in the areas they considered relevant to the village economies.

**Figure 4: Influence on research skills of Learner Participants**

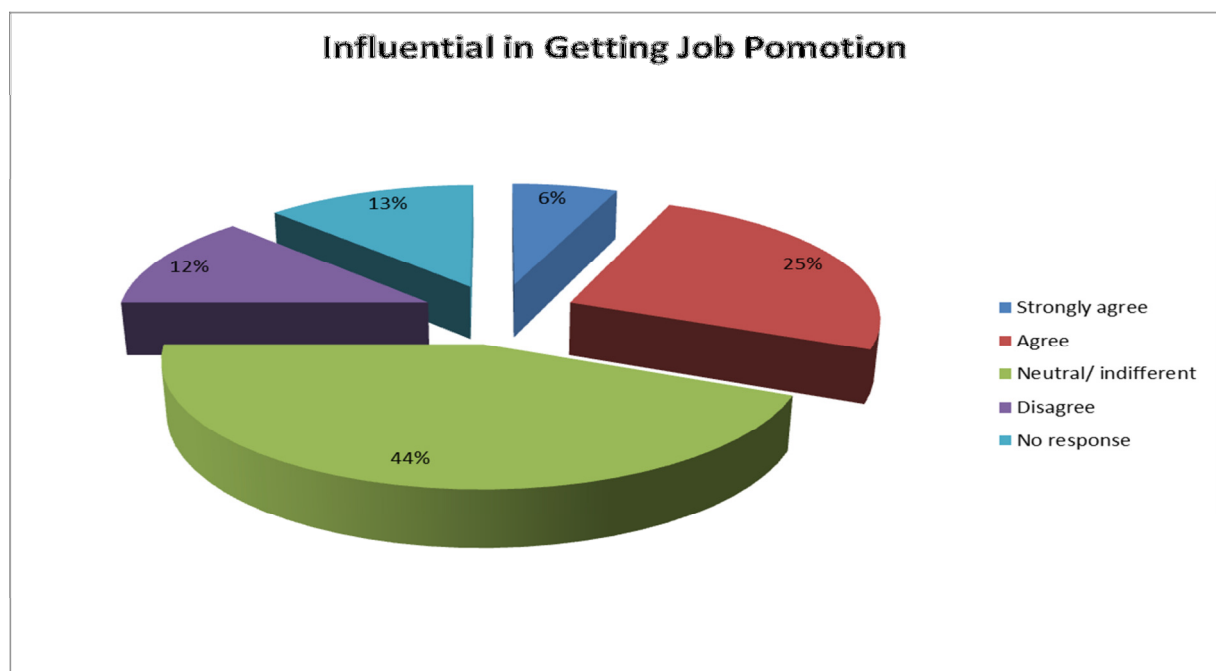


The study also explored about the influence of VLS training upon learner participants' career: (a) in the three years immediately following the training and (b) in the long run, the period beyond three years. This distinction is made as we expect the VLS training to be most influential in the first three years (arbitrarily chosen) whereas other factors will also contribute to career advancement as the period of time after training becomes longer. 44 percent of the respondents indicated that the VLS training helped them secure a fulfilling and rewarding employment within a three-year window (Figure 5). Similarly, 31 percent of the respondents agreed that the VLS experience helped in gaining promotion within three years of training (Figure 6). The relevance of training in long run is acknowledged as well with 38 percent of the respondents agreeing that the VLS training has remained influential in their career even after three years since their training.

**Figure 5. Influence of VLS on Learner Participants' career – Securing fulfilling jobs within three years of training.**



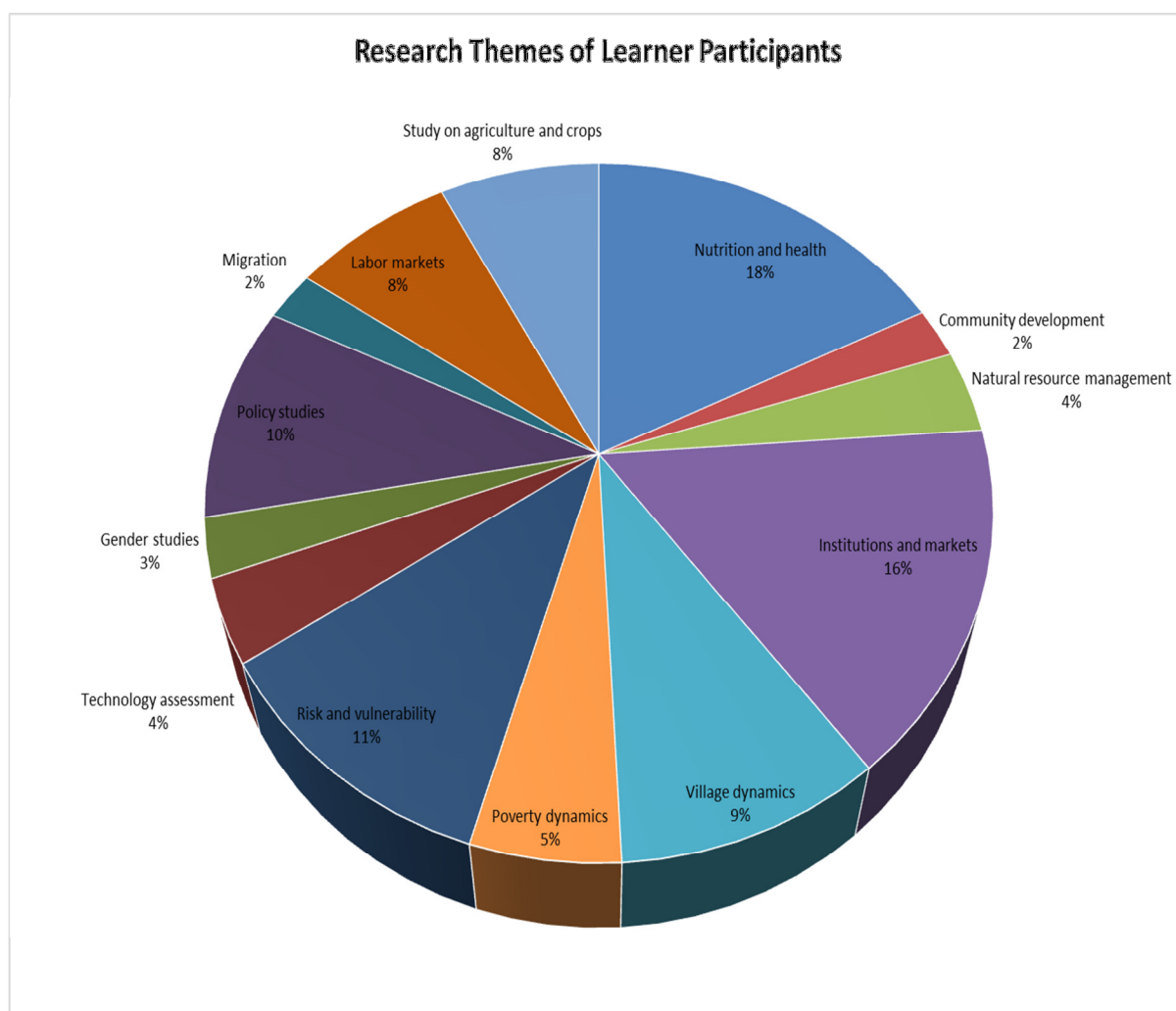
**Figure 6. Influence of VLS on Learner Participants' career – Job promotion within three years of training.**



## Diversity in Research Themes, Enrichment of Stock of Knowledge and Its Utilization

The respondents expressed that the VLS training and research exposure contributed to their stock of scientific knowledge, with many of those having practical implications. Survey responses indicate that 18 percent of the respondents were involved in research activities related to nutrition and health (Figure 7). Other major themes of research were institutions and markets (16%), risk and vulnerability (11%), policy studies (10%), village dynamics (9%), labor markets (8%), and studies on agriculture and crops (8%).

**Figure 7. Diversity of research themes that Learner Participants were engaged in.**

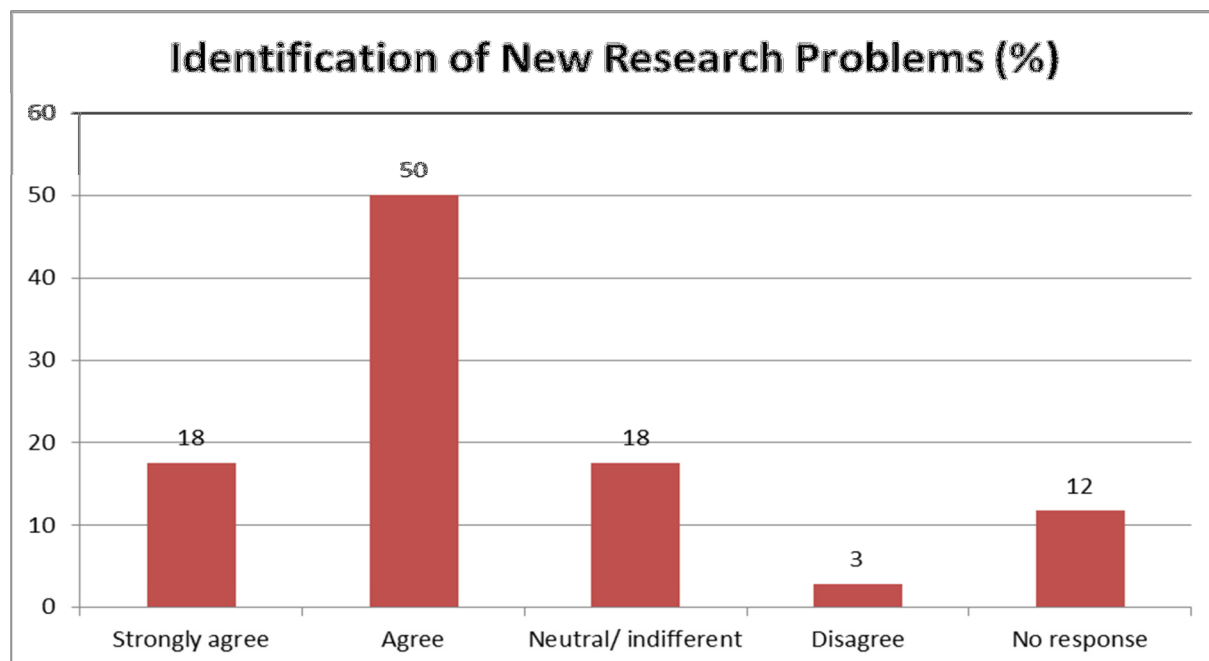




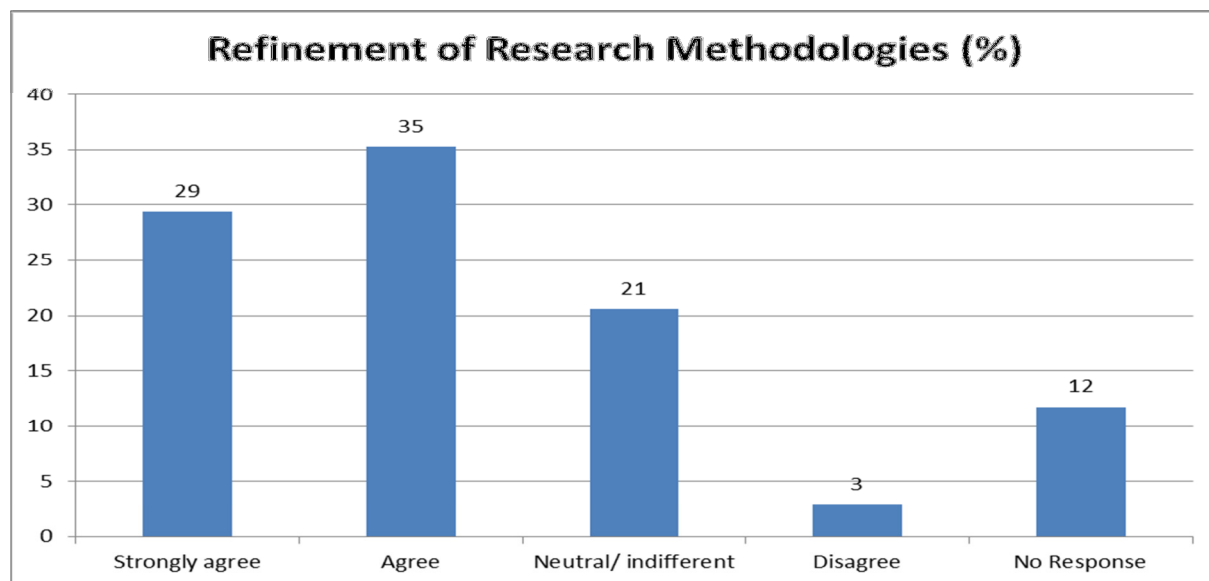
Contributions to academic and scientific domains happened through (a) the identification of new research problems, (b) the refinement of research methodologies and (c) other contributions to existing academic literature and scientific knowledge. 68 percent of the respondents felt that their research and training paved way in identifying of new research problems (Figure 8). Similarly, 65 percent among the respondents identified that their research activities assisted in refining research methodologies (Figure 9). In fact, 74 percent of the respondents expressed that their research contributed to the enrichment of academic literature and scientific knowledge (Figure 10).

Fifteen respondents, of which nine were PhD scholars during their ICRISAT association, reported scientific publications and research work based on VLS resources. Those include fourteen articles, a book, one seminar proceedings, a book chapter, their PhD theses and two project reports. Due to the nature of training and other research avenues provided through VLS, it is not possible to attribute these scientific works solely to VLS. Assessing how much to attribute is beyond the scope of present study.

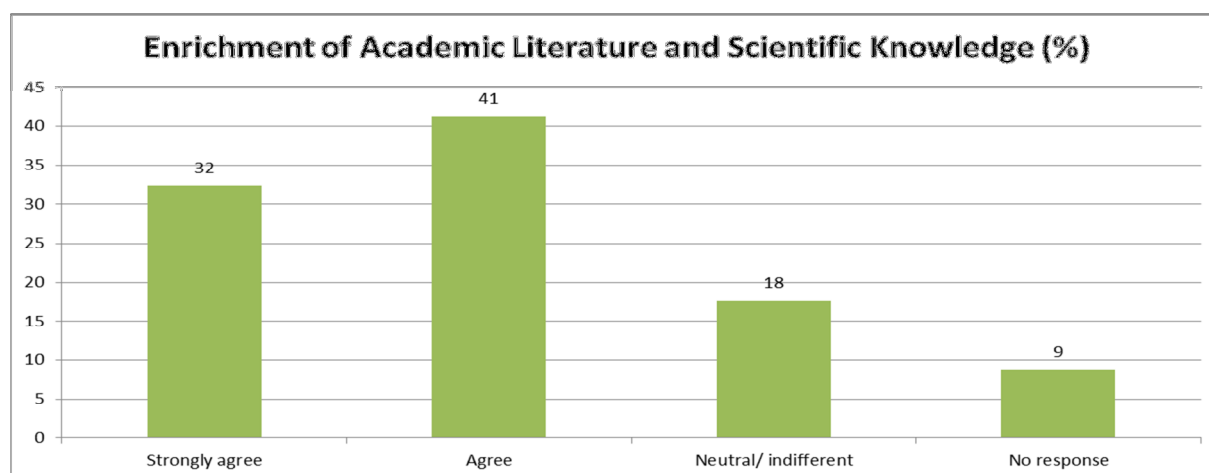
**Figure 8. Additions to stock of knowledge – Identification of new research problems.**



**Figure 9. Additions to stock of knowledge – Refinement of Research Methodologies.**



**Figure 10. Additions to stock of knowledge – Enrichment of Academic Literature and Scientific Knowledge.**

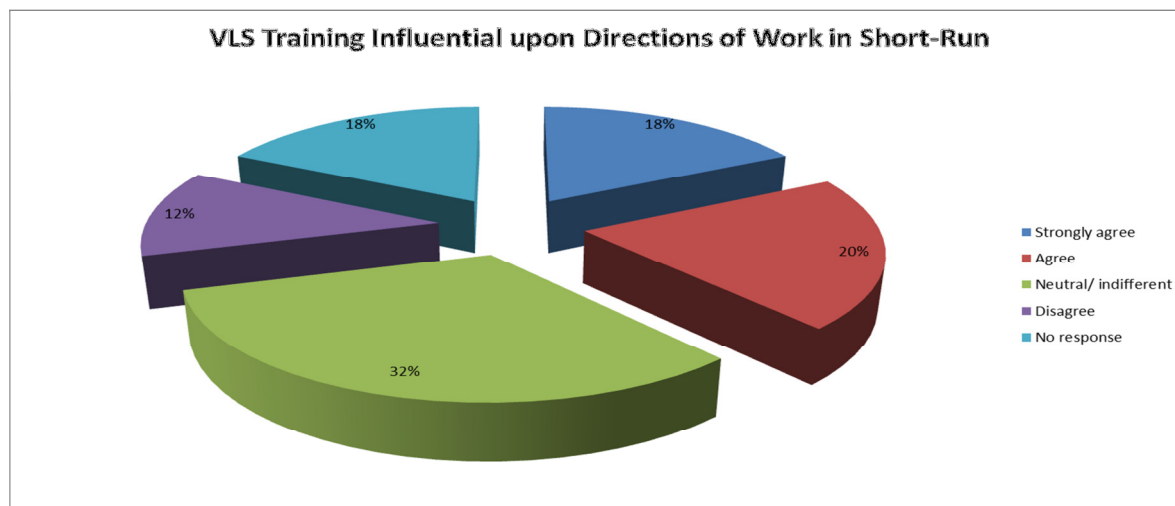


### **Influence on Organizations and Communities**

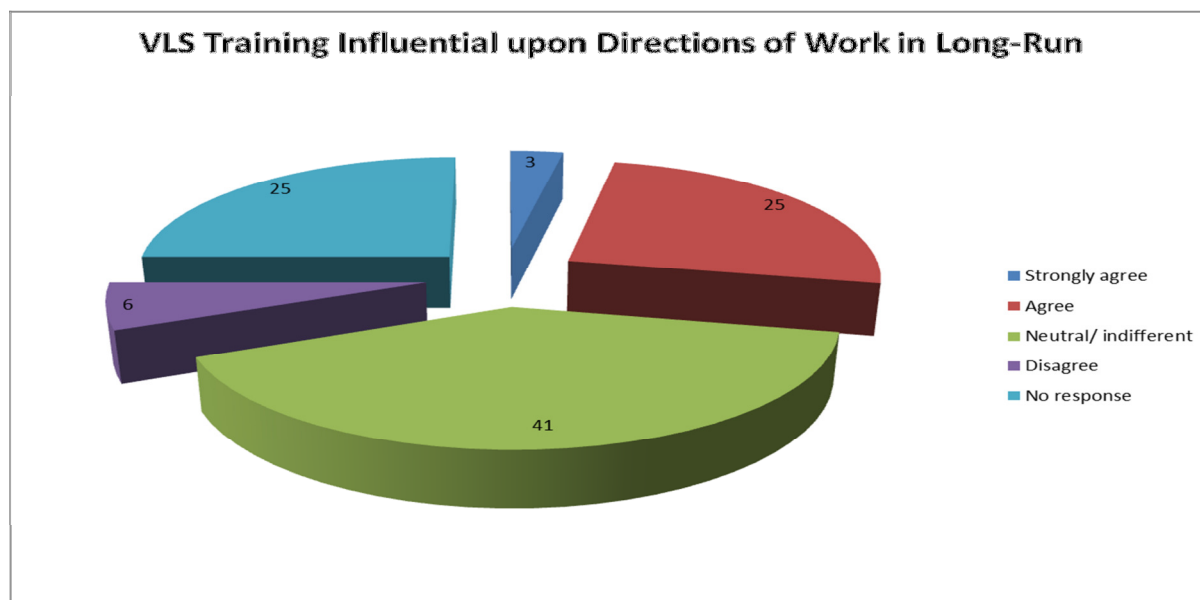
The capacities built at personal levels and the additions to stock of knowledge often have implications and influences at a broader level. The respondents felt as a result of their VLS training that they had influenced the direction of work at their institutions. 38 percent of the respondents acknowledged their training was influential upon the direction of their work in its first three years (Figure 11). With respect to the impact of

training after 3 years, 28 percent of the respondents felt their work influenced by their VLS training (Figure 12).

**Figure 11. Influence of Training – on work prioritization within three years of training.**



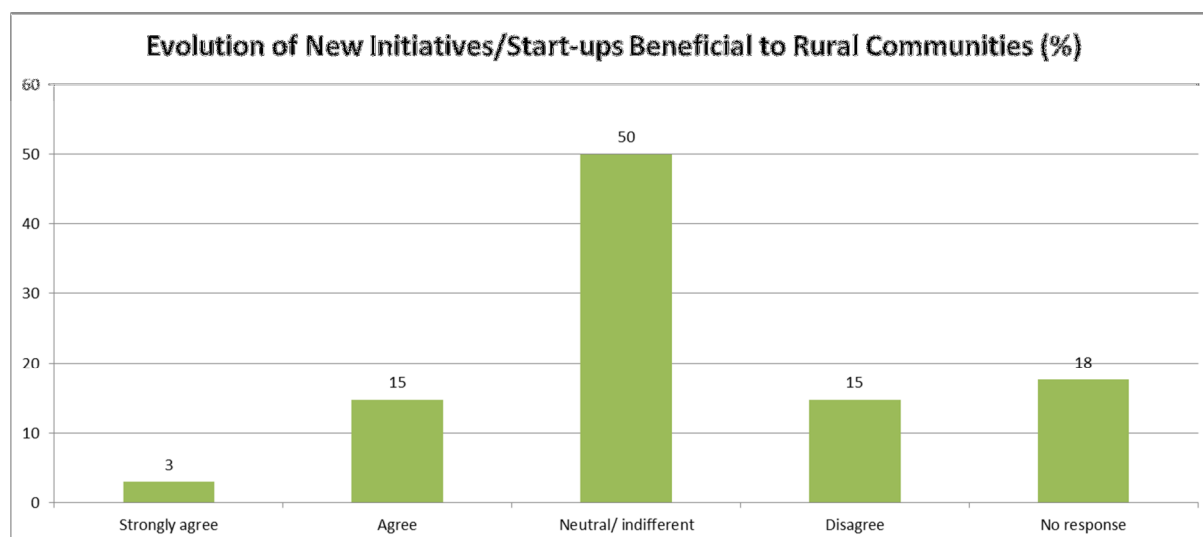
**Figure 12. Influence of Training – on directions of work after three years of training.**



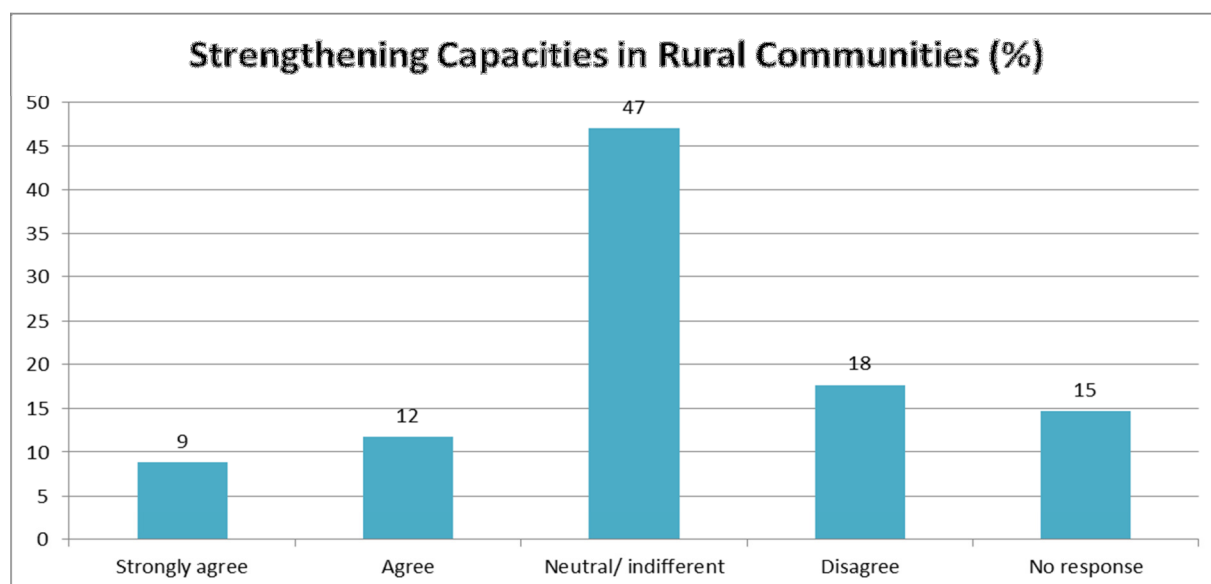
Albeit in a smaller scale, the capacity built through training also influenced in building and strengthening of capacities in rural communities. 18 percent of respondents indicated the evolvement of new initiatives and start-ups beneficial to the village communities as a result of their training and researches (Figure 13). Likewise, 21

percent of the respondents answered positively regarding the influence of their research in strengthening capacities in villages (Figure 14).

**Figure 13. Extended impacts from VLS training – Evolution of new initiatives in villages.**

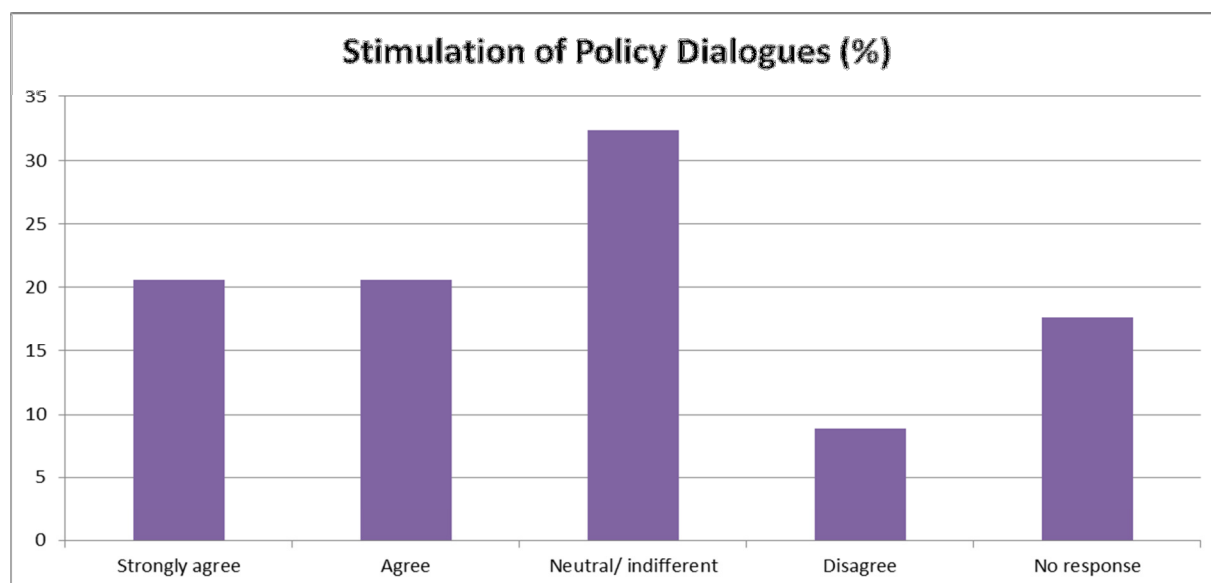


**Figure 14. Extended impacts from VLS training – Strengthening capacities in rural communities.**



VLS training and the emerging research tend to bring in benefits to rural communities through its policy implications. 41 percent of the respondents indicated that their research was influential in stimulating policy dialogues at various institutional levels, including the governmental (Figure 15).

**Figure 15. Extended impacts from VLS training – Stimulation of policy dialogues at governmental/non-governmental level.**



## Notable Learner Participants and their Appreciation for VLS

Many VLS learner participants evolved to be advocates of development and change, who aimed to serve a wider community through their continued research and career commitments. Box 1 showcases the work of two VLS learner participants. Box 2 exhibits the quotes from a few learner participants who acknowledged in the tracer survey the importance of VLS data as well as the role of VLS training in their lives.

### Box 1: Notable Learner Participants

**Dr. Patricia Day Bidinger**<sup>3 4</sup> (US national) was one of the first learner participants and were associated to VLS as a PhD scholar from 1977 to 1981. Her thesis was titled '*Agricultural and socioeconomic determinants of human nutrition in the semi-arid tropics of India*' and the degree was awarded by Cornell University, USA, in

<sup>3</sup> <http://india.ashoka.org/fellow/patricia-bidinger>; Fellow Sketch: Patricia Bidinger; Accessed on 2014.12.14

<sup>4</sup> <http://india.ashoka.org/belief-perseverance-honesty-%E2%80%93-recipe-success-dr-patricia-day-bidinger-director-institute-rural-health>; Belief, Perseverance & Honesty – A Recipe for Success: Dr Patricia Day Bidinger: Director, Institute for Rural Health Studies (IRHS); Accessed on 2015.01.09

1983. In an effort to understand the complexities of malnutrition in peninsular India, her study explored agricultural and socioeconomic factors. Her village experience molded her life mission along with her PhD. In 1981 she co-founded *Institute for Rural Health Studies (IRHS)*, Hyderabad, India, to broaden her research on malnutrition as well as to reach out to those in her study villages affected by malnutrition. Today, the institute provides quality healthcare to some of the poorest rural communities in Telangana, South India<sup>5</sup>.



**Ms. Leah Marie Lucas** (US National) visited ICRISAT as a 2010 World Food Prize Borlaug-Ruan Intern from June to August 2010. Her study aimed to determine the effectiveness of formal institutions in facilitating adaptations to climate change in a village level setting. Her internship report is titled '*Adaptation to Climate Change: An Investigation on the Effectiveness of Formal Institutions in Kinkheda Village, Maharashtra, India*'. Her study gave insights regarding the need of strengthening institutions and promoting collective actions thereby increasing transparency and accountability. This will induce formal institutions to efficiently play its role in facilitating adaptation strategies to the village communities in the wake of climate change.

In a *World Food Prize Newsletter* Lucas is quoted as saying: "The World Food Prize and my ICRISAT mentors have inspired me to pursue my life passions in these pivotal past few years, and they have equipped me with the skills to be successful. For their support and belief in me, I will be forever grateful. Now it is my time to pay it forward, as I devote my life to building a more fair global food system. By supporting smallholder farmers, I hope to help ensure that rural communities' rights to land, resources and food security are fulfilled."

Today she is a graduate from Grinnell College, USA, and studied 'Poverty and Progress in the Americas'. She has worked as an Oxfam America Change Leader. She joined Ashoka Changemakers in 2014. One of her latest initiatives is

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<sup>5</sup> <http://ruralhealthindia.org/index.htm>; Website of the Institute for Rural Health Studies; Accessed on 2014.12.29

*Empowering Pachitulul*, a project that aims for basic healthcare products for women in Guatemala<sup>6</sup>.

### **Box 2: Appreciation of VLS Data and Training from Learner Participants**

“In fact, I understood what research is only after working at ICRISAT. I'm grateful to my supervisors for all the guidance.” ~ **Ms. Anjani Sneha Vajrala** on her research experience at ICRISAT. Ms. Vajrala was an intern with the VLS program for three months in 2012. Her project report was titled ‘Labour Absorption, Farm Mechanization and Adoption of Improved Varieties of Chickpea in Prakasam District of Andhra Pradesh’.



Ever since the VLS experience, “institutional analysis become a core part of my later research”. ~ **Dr. Vishwa Ballabh (Professor, XLRI Jamshedpur)** regarding the influence of his experience with VLS on the direction of his latter research. Dr. Ballabh was associated with VLS as Post-doctoral fellow from January 1984 to January 1986, looking into issues related to land fragmentation.



“VLS is a locally-generated, large-scale, longitudinal and robust data set that is so comprehensive that it touches all the socioeconomic aspects of human life”. ~ **Mr. Prem Kumar SG (Research Fellow, Public Health Foundation of India)** with respect to the significance of VLS data. Mr. Kumar was a summer trainee at ICRISAT since May to October 2010 identifying significant information for the revival of VLS.



VLS training and exposure “improved college prospects after graduating high-school. It has provided opportunities to research and study social justice concerns... It influenced my career goals and what I wish to study while at the university”. ~ **Ms. Rachel Ganson (World Food Prize Borlaug-Ruan Intern, 2012)** on the influence of VLS training on career prospects. Ms. Ganson spent her internship from June to August 2012 exploring the role of participation in SHGs in improving the nutritional

<sup>6</sup> <http://www.changemakers.com/users/leah-lucas>; About Leah Lucas. Changemakers. Accessed on 2014.11.13

status of village households. Her report was titled '*Self-Help Groups as a Platform to Improve Nutrition Status: Insights from Village Aurepalle*'.

## **Insights and Implications from the Study**

To a great extent, the study has followed the familiar path of many previous tracer studies. The respondents have provided subjective assessments of the nature and value of their VLS training experiences and the impact this training has had on their own research and influence within the institutions where they work and on a wider community. In the present study, efforts are made to go further than many past tracer studies in assembling more objective evidence that the capacity built during VLS training has been used, even though it is a difficult task. With a strong emphasis in identifying the utilization aspects of built capacities directly and substantially linked to learner participants' VLS training experience, respondents were asked to identify more analytically, the influence of its outcomes on them personally, for their institutions and/or for their research program and on a wider community. The questionnaire was structured to follow a strong impact pathway narrative, providing opportunities for respondents to indicate explicit details of influences attributable to VLS training. It sought to capture specific information regarding (a) the capacities respondents were expecting to build through the VLS training program, (b) the capacities built, (c) the utilization of built capacities, (d) the personal outcomes such as higher income, satisfaction and promotion, (e) specific research outcomes and contributions to the stock of knowledge, (f) the explicit organizational outcomes, and (g) the visible influence on a wider community. Ideally we would have liked to measure the outcomes at the level of VLS and non VLS farm households, but in reality we were restricted to measuring a limited range of outputs which are sufficiently noteworthy as to suggest that the VLS training program has likely been a good initiative.

General insights which emerged from the study that deserve to be highlighted and further explored because of their relevance for VLS priorities and its future strategies include:



- Learner participants who used VLS are from 42 institutions across 39 countries of Africa, Asia, Australia, Europe and North America. This recognition of the VLS as a reliable source for data for research and as a research infrastructure among researchers who work in the fields related to village economics can be considered commendable especially given the fact that this global recognition is sustained ever since 1975.
- The VLS project has made a contribution in grooming high quality researchers across the globe in areas such as institutions and markets, risk and vulnerability, village dynamics and health and nutrition. The same is apparent through the careers many of the learner participants have achieved.
- Contributions of learner participants in addition to the stock of knowledge and the role of VLS training in this process are acknowledged by learner participants in the survey. It is expressed that their research has contributed in widening the theoretical frameworks and pushing the frontiers of information related to village economies, which are often crucial for researchers and policy makers.
- The forward linkages and spillover arising from the human and institutional scientific capacity built through the VLS training program are likely to be significant. In fact, 32 percent of the respondents indicated that they have recommended VLS to other researchers. Almost one-third of the respondents acknowledge the influence of VLS training in prioritizing their career commitments at their organizations. In a similar manner, the influence on stimulating policy dialogues and improving capacities in the rural communities are also expressed by the learner participants. However, a detailed network analysis of selected profiles may provide information on the width and depth of these linkages, which is beyond the scope of present study.

## **Limitations of the Study**

A main purpose of the study was to capture impacts and influences of built capacities through VLS training of learner participants, thereby bringing forward the evidence

based plausible narratives regarding the same. As identified and indicated in previous sections, achieving the purpose was difficult given the nature of the population and the sample. The challenges and hence the limitations of the study are as follows:

- The subjects of the study are learner participants since 1975 to 2013, covering a time span of 38 years. The oldest in the population was aged 74 years while the youngest was 18 years old, as of 2014. Tracing the earlier learner participants was hard and not possible in many cases.
- This study would be the first to explore the effectiveness of relying on internet communication methods alone in tracing people who are highly scattered over time. The study experiences indicate the need to combine both the traditional (offline) and online means of communication to successfully reach out to maximum prospective respondents.
- Quantifying impacts of human capacity building especially in long-run scenario is extremely difficult, if not impossible. A similar situation exists for enumerating the contributions from additions to the stock of knowledge. Evidence based case studies could provide considerable insights regarding the influence of stock of knowledge and built human capacity. However, this approach of plausible storytelling may be discounted by some researchers due to the fear of possible inclusion of subjective perceptions of respondents and investigators.
- Limitations of online survey methods including (a) those arising from the lack of the presence of a trained interviewer and (b) that of limited sampling and respondent availability (for example: due to lack of access to internet among the sample) are evident in the study. In the context of low response rates to the survey, it is likely that possible cooperation problem existed, which is also a limitation of online survey methods. For example, we must consider the possibility that the survey request email was considered not significant enough to be attended and responded to.

- The prospective respondents were asked to specifically identify the outputs of the training they received through VLS. Similarly, they were also requested to provide evidence based outcomes of their VLS based research and training in terms of personal, organizational and wider community benefits. However these aspects were hardly addressed by the respondents, which restrict us significantly in presenting the depth of the influence of VLS training through this study.

## **The Way Forward**

Tracing the prospective respondents using traditional methods of data collection including postal, telephonic and direct interview may help to increase the response rate. Methodology used in Kumar and Nacht (1990) and EDG (2006), where the initial broad surveys were followed up with in-depth interviews and detailed case-studies, indicates clear way forward. In-depth personal interviews of those who positively responded regarding the influence of VLS training are the next steps of the study. Here, efforts are needed to capture specifically a financial approximation of the benefits roughly acknowledged and identified by the learner participants. Insights from contingent valuation methods and discrete choice models could be employed in further exploration of the influence and value of VLS training. As the situation permits, the modern technologies of communication including video calls can be employed for interviews (For instance: Some of respondents have provided their Skype IDs). This needs to be complemented further with a few specific and detailed case studies enabling the study team to demonstrate strong and plausible stories regarding the impact and influence of VLS training among those received it and on a wider community.

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