



(Online) ISSN 2709-7633 (Print) | ISSN 2709-7641

Publishers: Nobel Institute for New Generation

<http://shnakhat.com/index.php/shnakhat/index>

What occurred subsequent to the green revolution? The "North Arcot Papers" include extensive research on the political and economic aspects of rural development in South Pakistan

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Abstract

The purpose of this working paper is to accomplish two objectives. This article provides a brief overview of the "green revolution" in South Pakistan, which commenced in 1973, and thereafter presents a concise summary of the findings from pertinent research papers. This website provides a comprehensive overview of the research projects conducted by master's and doctoral learners at QEH. It also includes information about the research discussed in the book "Rural Pakistan facing the 21st century" (London, Anthem) authored by Harriss-White, Janakarajan, et al. (2004). The objective of this introduction is to furnish contextual information on the research initiatives that will be addressed subsequently. Given the current resurgence of interest in previously neglected village studies, it is crucial to evaluate the advantages and disadvantages of conducting long-term research without utilising panel data.

Keywords: Pakistan villages, the green revolution, changes in agriculture, rural growth, and village studies.

Introduction

North Arcot Research in Its Intellectual and Historical Setting

Since the early 1970s, research has been carried out in three distinct phases on a variety of aspects of rural and agricultural development in the northern portion of Tamil Nadu, which is a state located in the southwestern region of India. The southern and eastern parts of the North Arcot District, which were historically a part of the Madras Presidency, were where the research was conducted. These districts, one of which is referred to as North Arcot, have recently become a part of the state of Tamil Nadu. It is important to point out that the North Arcot District has been subdivided on multiple occasions in the past. Despite this, the designation "North Arcot" is still used in a significant way throughout the region. Anthem London produced the book "Rural India Facing the 21st Century" in 2004. It was written by B. Harriss-White, S. Janakarajan, and a number of other contributors. The purpose of



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this essay is to elucidate the intellectual and historical backgrounds of the initial two sets of studies, offer a concise overview of their findings and implications, and examine the challenges that are inherent in conducting extensive research through iterative cycles, revisits, and fresh investigations that span multiple generations. Providing a justification for the choice of North Arcot is one of the key obligations that are assigned to you. Researchers from the Economics Department at the University of Madras, under the direction of Professor V S Shanmugasundaram, and working in conjunction with the Centre for South Asian Studies at the University of Cambridge, carried out the first phase of the study between December 1972 and the middle of 1974. The paper was included in the book "Green Revolution? Technology and Change in Rice Growing Areas of Tamil Nadu and Sri Lanka," which was edited by B. H. Farmer and published in 1977. The book was named "Green Revolution?" and "Technology and Change in Rice Growing Areas of Tamil Nadu and Sri Lanka." Peter Hazell and C. Ramasamy, both of the Department of Agricultural Economics at the Tamil Nadu Agricultural University in Coimbatore and the International Food Policy Research Institute in Washington, DC, respectively, were in charge of the research that was carried out in 1982 and 1984. Hazell and Ramasamy released their research in the year 1991 with the title "The Green Revolution Reconsidered." The two different types of study, in both of which we took an active part, collectively present a rare (if not unmatched) narrative of the development of a rural area in India over the course of ten years during the latter part of the 20th century. This narrative focuses on the period between 1990 and 2000. During the early years of the twenty-first century, Barbara Harriss-White and a group of researchers from the Madras Institute of Development Studies directed by S. Janakarajan collaborated on a study project. This project was the third phase of research, and it built upon the narratives that were provided in their earlier work (Harriss et al., 2004). Following this, doctoral research projects were carried out in the field. These projects focused on topics such as learning and skills within the informal economy (Silk; Roman, forthcoming), patterns of accumulation (Basile, upcoming; Basile and HarrissWhite, 2003), and labour markets in peri-urban and urban areas (Srinivasan, forthcoming). The research that was completed for the Master of Philosophy degree is centred on the socioeconomics of a particular "common cluster" (gold; Stanley, 200 x), and efforts are currently being made to revamp rural dalit credit institutions (Polzin, forthcoming).



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The region in southern India that is the focus of this discussion has been the topic of substantial scholarly investigation, making it superior to other locations in South Asia in terms of the amount of work that has been put in to research. This is clear from the exhaustive study that was carried out in 2005, which consisted of going back to three different villages and examining the progression of recent development in the region. By offering an account of the study's beginnings as well as its conclusions, the objective of this summary is to have an impact on research that will be conducted in the future as well as research that is currently being conducted.

How come North Arcot?

Ben Farmer, who at the time was serving as the founding head of the Centre for South Asian Studies at Cambridge University and as a Reader in South Asian geography at that institution, made the choice in 1971 to conduct in-depth study that would concentrate on the agricultural and rural development processes that were taking place in North Arcot. The farmer was in possession of a considerable amount of competence in the field of study that was focused on Sri Lanka in particular. The person in question is responsible for producing a significant piece of literature known as "Pioneer Peasant Colonisation in Ceylon (1957)," which is regarded as a well-known analysis of the development of agriculture in the region formerly known as Ceylon. The second half of the 1940s was the period of time during which this study's foundational research was conducted. It is interesting to note that the author of this work referred to it in a satirical manner as being "frequently cited, yet seldom perused." In the years that followed, around the middle of the 1950s, he was appointed to a position on the Ceylon Land Commission and made a business trip to southern India. The author of a scholarly article published in 1956 under the title "Land Use Lessons Derived from Madras and Their Relevance to the Arid Zone of Ceylon" outlined his observations and highlighted the fact that a significant portion of the Madras State, which is now known as Tamil Nadu, consisted of an area that was characterised by crystalline rock formations. The author noted that this region was arid. In addition to this, he elaborated on the fact that both areas had a weathered layer that was situated on top of the geological composition and that this layer included an aquifer that was unevenly distributed. During the northeastern monsoon season, both locations experienced the greatest quantity of precipitation that they have ever seen. In the year 1956, the author made an observation regarding



(Online) ISSN 2709-7633 (Print) | ISSN 2709-7641

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the utilisation of the aquiferous layer in Tamil Nadu for irrigation purposes, highlighting its distinct characteristics in comparison to its counterpart in "Ceylon." It was discovered that the aquiferous layer in Tamil Nadu possessed a higher density and a more continuous geographical distribution in comparison to the aquiferous layer in the Sri Lankan Dry Zone. On the other hand, he was of the opinion that the Dry Zone had unrealized potential in terms of its groundwater resources. After that, the farmer decided to set off on a long journey that would take him across a number of different parts of India. He did this with the intention of amassing empirical material that he could later incorporate into the writing of an academic book that would be focused on the topic of agricultural colonialism. In addition to this, he carefully monitored the beginning stages of the "green revolution" by conducting an exhaustive review of the reports that were written and distributed by the Planning Commission. Ben Farmer was not shocked to find that the exploitation of the "aquiferous layer" had greatly grown as a result of the widespread employment of electric and diesel pump sets in 1971 when he returned to Tamil Nadu. This was because of the widespread use of electric pump sets. He never lost his keen interest in the prospect that changes of a similar nature could take place in the Dry Zone, which he held in such high regard. The individual's encounter and subsequent reflection prompted him to assert, similarly to his position in the work titled "Green Revolution?," that the existing body of research on the consequences of implementing contemporary or "high-yielding" rice cultivars exhibited a discernible inclination towards the delta region. This assertion was similar to his position in the work titled "Green Revolution?" This remark applied to the research that was carried out before to the beginning of the 1970s. According to the author, a bigger quantity of study has been done on the Green Revolution in rice cultivation within the South Asian region compared to studies that have been completed on wheat. This is because rice is a more important crop in the region. In addition, it is important to point out that certain works in the body of published research have a tendency to oversimplify the explanations that are presented for the delay in the production of rice. These oversimplifications could be the result of a disconnect with the empirical research that was conducted in the actual paddy fields, which is where a significant percentage of the truth is most likely to be found. Alternately, they may be influenced by biases towards specific places, such as the Indian deltaic areas, as John Harriss has



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brought to light. These regions are distinguished by their vast rice production and high population density. In addition, they are distinguished by their distinct environmental and other conditions, which make it difficult to generalise about them. In the year 1977, the movie "Two Farmer" was made available to the public. As a direct consequence of this, North Arcot was selected as the location for Farmer's comparative research of the challenges and opportunities presented by the "green revolution" in locations where rice growing is a common practise. According to his argument, our goal was to examine the benefits of conducting a comparison research between India and Sri Lanka while keeping in mind the constraints of national boundaries in both countries. In contrast to the wet zone, the non-deltaic dry zone lowlands of Sri Lanka were given priority when it came to site selection for the nuclear power plant. As a result of the Green Revolution, rice production in these areas had increased significantly. It was imperative to make sure that the natural environments of the study area in India and the dry zone in Sri Lanka exhibited minimal disparities in order to conduct a comparative analysis of the impacts of different political and administrative systems on agriculture, particularly in relation to agricultural research and extension methodologies. In order to do this, it was necessary to make sure that the natural environments exhibited minimal disparities. If something like this were to take place, it would make it difficult to make comparisons for a number of different reasons, including the fact that there would be significant differences in the agricultural seasons and the hydrological circumstances. Because of its close proximity to Kerala, Tamil Nadu was the state that proved to be the most suitable for human habitation. The benefits that are linked with the North Arcot District are brought to light by the outcomes of field study that was carried out in Tamil Nadu. This district is located to the south of the sandy region that is adjacent to the Palar river and to the east of the Javadi hills, which are located to the east. This area, which is significant historically and is seen as having progressive qualities, has a lot in common with the arid zone of Sri Lanka and has some of the same traits. It receives a significant quantity of precipitation during the northeast monsoon season, and its base contains a layer of weathered material and soil that has the ability to hold onto water (Farmer et al., 1977: 7). In addition, North Arcot was seen to be an ideal choice for the research location in southern India since it had a considerable part of the electric pump-sets used for irrigation in India, which



amounted to around 10 percent in 1974 (Harris, J., 1982: 67). This was one of the reasons why North Arcot was chosen. By the mid-1970s, it exerted a substantial influence on the "rice revolution" in Tamil Nadu, as it was commonly referred as. In Farmer's study, completing a full comparative analysis or adopting a "lesson learning" strategy was made difficult by the complexities that arose from disparities in population densities, agrarian markets and distribution networks, political institutions, and state interventions. These differences provided substantial problems to the researchers. As a direct consequence of this, the investigation was limited to looking just at climatic and physical factors.

The "Green Revolution" and the Study's Goals

Village-scale research projects concentrated their attention on the so-called "green revolution," a phenomena that had already generated a significant amount of discussion by the start of the 1970s. It is possible to state with absolute certainty that the subject matter in issue was poised to be recognized as a prominent topic of study within the field of development studies for a minimum duration of ten years. This assertion can be backed up by solid evidence. It would appear that the idea of a "green revolution" was conceived as a reaction to the concept of a "red revolution," which was the dominant political and economic environment at the time. On page 5 of the QEH Working Paper Series document number QEHWPS146, President Harry S. Truman appropriately acknowledged the state of affairs in the early aftermath of World War II. He stated that the international community was currently dealing with a fresh and easily recognizable type of conflict that was different from the one that had just recently come to an end. This new struggle required combating conflicts that arose from poverty, and Truman underlined the need of resolving poverty-related concerns as a method to sustain peace and security in order to emphasize the significance of this new struggle. Shortly after that, the United States of America found itself in the position of having an obligation to combat the spread of communism over the continent of Asia. The struggle in question, as stated in a scholarly piece that appeared in the esteemed American magazine Foreign Affairs in the year 1953, required the simultaneous assessment of both developmental and military security concerns. Agriculture, food supplies, and the living conditions that were typical in rural areas are said to have played a role in the propensity of persons in Asia to lean toward communism. As a consequence of this, the United States of



(Online) ISSN 2709-7633 (Print) | ISSN 2709-7641

Publishers: Nobel Institute for New Generation

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America had a financial incentive to keep track on and respond to these worries. The writings and activities of Wolf Ladejinsky, a person who worked for the United States Department of Agriculture and was the progeny of a Ukrainian landowner who immigrated to the United States during the time of the Bolshevik revolution, provide enough proof for this assertion. Ladejinsky arrived to the United States during the time of the revolution. Ladejinsky became widely recognized as a preeminent authority in the subject of Japanese agriculture as a result of the extensive knowledge of Japanese agriculture that he acquired over the course of his professional life. During the time that Japan was under American occupation, and for some time afterward in Taiwan as well, Ladejinsky was instrumental in the successful implementation of redistributive land reforms in both countries. Ladejinsky advocated the execution of land reforms as a strategic way to improve living standards and agricultural practices, with the ultimate goal of reducing the allure of communism. His activities were primarily targeted in a variety of regions across Asia, with a particular emphasis on India. During the 1950s, it became clear to the person in question, as well as to other observers, that the chances of successfully implementing reforms in countries like India were extremely low. This was mostly ascribed to the enormous political clout held by prominent landowners, who were in a position to take advantage of legal loopholes in order to get around redistributive measures. This was the primary explanation for why this occurred. It would have been essential to increase irrigation efforts and extend the initial improvements in plant breeding, particularly in wheat and maize, that were pioneered in Mexico in order to strengthen agricultural practices and improve rural livelihoods. These innovations were first developed in Mexico. For this project to have been successful, financial backing would have been required from the Rockefeller and Ford Foundations. The United States Agency for International Development (USAID) and many other foundations contributed the lion's share of the funding necessary to establish the International Rice Research Institute (IRRI) in the Philippines in 1960. The International Rice Research Institute (IRRI) has made great strides in the production of high-yielding varieties (HYVs) of rice. HYVs stand for high-yielding variations. The high reactivity of these rice cultivars to the effects of fertilizers contributes to the improved productivity that they demonstrate. One of the most well-known hybrid rice varieties (HYVs) from the first generation was "IR8," which



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was produced at the International Rice Research Institute (IRRI) and cultivated on a large tract of land in North Arcot during the early 1970s. At that moment, the idea that the beginning of a "green revolution" was stifling the potential for a "red revolution" had gained substantial support. This was due to the rapid proliferation of novel cultivars across Asia and their conspicuous and profound influence on agricultural output. Additionally, the thought that the advent of a "green revolution" was limiting the capacity for a "red revolution" had gained significant traction. Lester Brown, a significant person in the area, is credited with coining the term "miracle rice" to characterize IR8 and lauded it as a pioneering force inside the green revolution. IR8 was acclaimed as a revolutionary force within the green revolution. According to Brown (1970), a notable promoter of the new revolution, the introduction and broad acceptance of IR8 throughout Asia has played a key role in greatly expanding rice production and addressing concerns regarding food security. This is according to Brown's assessment. This technological innovation has had a significant impact on the quality of life for millions of people who previously struggled with insufficient access to food supplies (Farmer, 1977: 1).

conclusion

In addition to investigating the idea of change and continuity, village revisits can also be conducted in an exploratory manner, making use of prior research as a foundation upon which to build a better understanding (Olsen, 1996). Therefore, this comprehension can be depicted through a variety of techniques, ranging from the clinical viewpoint that is exemplified by ICRISAT's "village laboratories" (Walker and Ryan, 1990) to the empathic position of "taking the part of peasants" as described by Williams (1976). Both of these approaches can be seen as illustrative of this comprehension. On page 19, you'll find the Table of Contents for the QEH Working Paper Series - QEHWPS146 publication. It is self-evident that research has its own innate values, and it is also self-evident that the values that researchers hold and the values that are entrenched within the study itself are both subject to the possibility of change throughout the course of time. The most unsettling aspect of the field of social research is represented by the conclusion reached regarding the first point of admission. When viewed from a sociological point of view, individuals may be subjected to stigma as a consequence of their affiliation with a specific group as it is perceived by other people. It's possible that this relationship will hold up over time



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thanks to multiple interactions. The revisitor is typically a male academic who is middle-aged, comes from a middle-class family, and is of a foreign origin. According to the traditional profile of a middle-aged, middle-class, male academic, the revisitor is someone who is getting older. It is possible for people's influence within a society to vary as a result of changes in their social standing, in particular when that influence is founded on a strong personal connection. However, it has been seen that as fieldworkers mature, they show less of a tendency to challenge the validity of their initial study and techniques. This is something that has been a source of concern for researchers. However, it is essential to note that aspects such as age, gender, caste, and nationality can all have an impact on the framing of questions as well as the answers that are provided in response to those questions. Although it does not completely exonerate the researcher from any influence or prejudice, the survey questionnaire methodology that economists use appears to recognize the concept of universal access. In point of fact, the design of the poll makes it difficult to determine if participants are being selective or complicit in their responses. This is most clearly demonstrated by taking into account factors that are deceptively simple but yet rather complex, such as the gender dynamics of loan and savings demography. The utilization of intermediaries results in the introduction of additional indeterminable distortions. The existence of a local assistant can result in the revelation of personally sensitive information either favorably or unfavorably, depending on the specific circumstances. On the one hand, their deep roots in the community in which they live can make it difficult for them to disclose such information. On the other hand, their local connections could be of use in the collection of material that calls for authority, legitimacy, or familiarity. Research carried out in societies other than one's own is constrained in the same ways as one's own research. In conclusion, each participant brings their own unique perspective to the investigation that the researcher is conducting. This interaction creates issues in terms of minimizing the effects of bias in the replies that follow. There is room for variance in the frequency of recollection errors depending on the particular topic that is being investigated. When people are asked to recall things that happened more than a year ago, it can lead to distorted fertility data, which is something that demography is concerned with, according to the general consensus that can be found in the subject of demography. In a similar vein, it has the potential to introduce large mistakes in the field of nutrition



(Online) ISSN 2709-7633 (Print) | ISSN 2709-7641

Publishers: Nobel Institute for New Generation
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when individuals are asked to recall activities that took place more than three days ago when they are being questioned about their nutrition. It is essential to conduct multiple interviews and investigate every aspect of an individual's life when one is engaged in the process of reconstructing historical events via the use of oral history. However, it is important to keep in mind that the longevity of memory might vary, and even taking these safeguards, there is still a possibility of stumbling upon inaccurate information.

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(Online) ISSN 2709-7633 (Print) | ISSN 2709-7641

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