

L9 - 2016

T.N. Srinivasan



# NIMAS

MICRO FOUNDATIONS OF  
PUBLIC POLICY:  
SOME THOUGHTS INSPIRED BY THE  
CONTRIBUTIONS OF M.N. SRINIVAS

15<sup>th</sup> MN SRINIVAS MEMORIAL LECTURE 2016



NATIONAL INSTITUTE OF ADVANCED STUDIES

Bengaluru, India



# **MICRO FOUNDATIONS OF PUBLIC POLICY: SOME THOUGHTS INSPIRED BY THE CONTRIBUTIONS OF M.N. SRINIVAS**

15th MN Srinivas Memorial Lecture  
2016

**T.N. Srinivasan**



**NATIONAL INSTITUTE OF ADVANCED STUDIES**  
*IISc Campus, Bengaluru-560012*

**2016**

© National Institute of Advanced Studies 2016

**Published by**

National Institute of Advanced Studies  
Indian Institute of Science Campus  
Bengaluru - 560 012  
Tel: 2218 5000, Fax: 2218 5028  
E-mail: [admin@nias.iisc.ernet.in](mailto:admin@nias.iisc.ernet.in)

*L9-2016*

**Typeset & Printed by**

Aditi Enterprises  
Bengaluru - 560 023  
Ph.: 080-2310 7302  
E-mail: [aditiprints@gmail.com](mailto:aditiprints@gmail.com)

# MICRO FOUNDATIONS OF PUBLIC POLICY: SOME THOUGHTS INSPIRED BY THE CONTRIBUTIONS OF M.N. SRINIVAS

T.N. Srinivasan<sup>1</sup>

## I. Introduction<sup>2</sup>

It is a great honor to be invited to deliver the **Fifteenth M.N. Srinivas Memorial Lecture** at the National Institute of Advanced Studies (NIAS). It is also a challenge for me as an economist for several reasons. The previous lecturers in this series have not only been very distinguished in their own right, but many of them were also sociologists and social anthropologists as Srinivas was. I am neither, being an economist, so that I am not professionally qualified to speak with any authority from the perspective of the disciplines of sociology and social anthropology. Still I accepted the challenge with great trepidation taking comfort in Srinivas's own vision. In his foreword to the very first lecture in this series by T.N. Madan,

---

<sup>1</sup> Samuel C. Park Jr. Professor of Economics Emeritus and Emeritus Professor of International and Area Studies, Yale University and Distinguished Professor, IIT Madras. I thank Dr. Baldev Raj, Director, National Institute of Advanced Studies (NIAS), Bengaluru for inviting me to deliver the 15<sup>th</sup> M.N. Srinivas Memorial Lecture on January 19, 2016 and Professor Gopi Rethinaraj, Academic Head, Ph.D. Group at NIAS for arranging my programme at NIAS. I thank Sangeetha Nair of Okapi Research and Advisory for help in preparing the first draft of this lecture. I am very grateful to Soundarya Iyer, Ph.D. scholar at NIAS for efficiently typing several subsequent drafts and preparing the PowerPoint of my lecture.

<sup>2</sup> I thank André Béteille, Arjun Appadurai, Kaivan Munshi, Roddam Narasimha, Narendar Pani, Sudhir Chella Rajan, Jessica Seddon, K. Sivaramakrishnan, A. Vaidyanathan and Thomas Weisskopf for their comments on an earlier version. They are not responsible for my particular phrasing and use of their comments in this version.

a pre-eminent sociologist and social anthropologist, Professor Roddam Narasimha said (and I quote) “[Srinivas’s] presence at the Institute was an indicator of our commitment to the value of multi-disciplinary research. Professor Srinivas believed fervently in this vision. His worldview encompassed all the commentaries that man has made (and continues to make) on his surrounding from religion at one end and technology on the other; indeed he made me realize that the two are not the ends of a spectrum” (end of quote) (Madan 2001, p. iii). I was emboldened to think that Srinivas would have indulged my attempt at using his scheme or framework he laid out in his doctoral thesis at Oxford (Srinivas 1952) and in his well-known work *The Remembered Village* (Srinivas 1976) for studying a village (the micro foundation in my lecture title) to understand the public policies towards changes in Rural India since Independence. Srinivas’s commitment to **multidisciplinary** as well as **interdisciplinary** research (which, I understand is also the founding philosophy of NIAS) suggested that I should explore the need for and the opportunities that are opening up for such research in India. Such an exploration naturally has to be in the context of India’s current economic status, the challenges it faces and its prospects for the near and medium term.

I believe I met M.N. Srinivas, called Chamu by his friends, almost fifty years ago. But with my failing memory, I am not entirely sure. We co-signed in 1966 an appeal for contributions to the Sameeksha Trust that was to publish the Economic and Political Weekly. We could have met then or it could have been some time during 1967 or 1968 when I was a Visiting Professor and Faculty Research Fellow at Stanford University on a leave of absence from the Indian Statistical Institute at Delhi and Chamu was at the Stanford Centre for Advanced Studies in Behavioral Science, if I remember right, soon after, a fire destroyed his notes from field work and other studies forcing him to reconstruct them entirely

from memory. He and his wife Rukmini (Ruka to her friends in US) became my friends and also of the late Alan and his wife Jacqueline (Jackie) Manne of Stanford. Alan was at Yale when I was doing my Ph.D. and was on my thesis committee. Besides, Alan and Jackie visited India in the early sixties. Alan worked at the Indian Statistical Institute (ISI) where I was. Srinivas and I kept in continuous touch with Alan and Jackie till they passed away.

## **II.A Brief Outline of the Lecture**

Srinivas's focus was in field studies in rural India with the social anthropologist as a participant observer. I will therefore begin with a brief picture of rural India. I will then lay out my understanding of Srinivas's Structuralist-Functional model as a potential framework for studying it, particularly its concept of Dominant Caste and its functionalist approach to the relation of dominant caste with other castes and non-Hindu groups, and the processes of Sanskritization and Westernization. By comparing what we know about the reality of Rural India today with what the dynamic processes in the Srinivas framework would have projected, I will argue that the framework is broadly consistent with the available factual data and in particular, that class has not yet replaced caste as the dominant factor in inter-caste socio-economic relationships in rural India.<sup>3</sup>

On the other hand Srinivas's framework though clearly important, is not the only one to try to understand and characterize rural India.

---

<sup>3</sup> I owe it to Professor Roddam Narasimha, who in his comments at the end of my lecture drew my attention to Srinivas's last lecture at the NIAS with the title, "An Obituary to caste as a system". A few weeks later Srinivas passed away. A posthumous version based on a transcription by his two daughters, Tulasi Srinivas of Harvard and Lakshmi Srinivas of Wellesley College appeared in the Economic and Political Weekly (Srinivas 2003). As Professor Narasimha remarked, this final lecture by Srinivas "is a summary of his life's work and a masterly review of his own and others' views". In this revised version of the lecture I will be drawing extensively from Srinivas (2003).

In fact there are two really big narratives of what is happening <sup>4,5,6</sup>.

---

<sup>4</sup> Jessica Seddon suggested the two narratives.

<sup>5</sup> In his telephone conversation with me after reading the version of my lecture as delivered, André Béteille, sociologist and chancellor of Ashoka University and perhaps the most eminent of Srinivas's students questioned my attribution to Srinivas of the Structuralist-Functional model. Given Professor Béteille's authority as a sociologist and student of Srinivas, I wanted to make sure I was not mistaken and re-read Srinivas's autobiographical essay (Srinivas 1997) and his last lecture (Srinivas 2003) at NIAS before he passed away, since the two in my view in many ways summarize his thoughts over decades of his academic career.

The account in Srinivas, 1997 of his scholarly career as an undergraduate in philosophy in Mysore, followed by a law degree on the side as an insurance against unemployment, his graduate work in sociology at Bombay under G. Sudhir Ghurye (a student of W.H.R. Rivers of Cambridge, the founder of diffusionism), and eventually, as a student for a second PhD degree at Oxford, first with A.R. Radcliffe-Brown (R-B) and then with E. Evans Pritchard (E-P) is fascinating. As he puts it, "looking back, I am surprised, that as late as 1944 I was unacquainted with the functionalism of Malinowski or Radcliffe-Brown... Ghurye recommended me Oxford [for my PhD], because Radcliffe-Brown was a professor there and because he was 'a seeded functionalist' whatever that meant." (Srinivas 1997, p 7)

Once Srinivas reached Oxford, Radcliffe-Brown took his doctoral thesis under Ghurye to read and asked him to write a paper on cultural patterns. After reading both, Radcliffe-Brown told him that "there was a considerable amount of material in my thesis on ritual and religion and I should look at it from the structural-functional point of view... the task of looking at the Coorg material from a Structural functional point of view proved to be exciting. It looked as though the material was crying out for such an approach and analysis" (Srinivas 1997, p 7, emphasis added). In the abstract of Srinivas (1997), he mentions that at Oxford he became a structuralist-functionalist, albeit a somewhat skeptical one" (emphasis added). For me such skepticism is the hall mark of a good theorist, otherwise he/she becomes dogmatic and the theory becomes an article of faith rather than a statistically testable and falsifiable hypothesis in the Popperian (Popper 1959) tradition.

He begins his last essay (Srinivas 2003, p 455) with "I shall be arguing in this paper that the localised system of production of foodgrains and other necessities... based on a caste-wise division of labour is fast breaking down all over rural India and is likely to disappear in the near future". In the body of the paper he goes on to discuss various attempts to uproot the caste hierarchy which had failed to make a dent on it and in its concluding page (Srinivas 2003, p 459) he writes "But the paradox is that Oxford while caste as a *system* is dead or dying, individual castes are thriving...the moral to be drawn is that an ideological attack on caste



---

which is not backed up or underpinned by a mode of social production ignoring or violating caste based division of labour is totally inadequate. **A combination of wholly new technologies, institutions, based on new principles, and a new ideology which includes democracy, equality and the idea of human dignity and self-respect has to be in operation for a considerable time in order to uproot the caste system**". (Srinivas 2003, p 459, emphasis added)

In my view as an economist, the caste based division of labour is the quintessential feature of Srinivas's structuralist-functional model. I do not believe that either a new non-caste based mode of production, or the combination needed to uproot the caste system that he articulated, are currently in place throughout India, let alone in operation for a considerable time.

It is likely that André drew support for his view that Srinivas was not strictly an adherent of the structuralist-functional model from Srinivas (1997, p 13) where he says "It is ironic that Oxford soon proved to be a place where the basic postulates of Radcliffe-Brownian structural functionalism were rejected. The leader of this move was E-P..." (Srinivas 1997, p 13) After discussing the arguments of E-P, Srinivas goes on "Where did I stand in this controversy? To me E-P's argument that anthropologists had produced nothing remotely resembling laws in the natural sciences is self-evident; in addition I had never really believed in the irrelevance of historical data for sociological explanation...I accepted, however, the functionalist idea of interdependence of institutions and that such interdependence enabled the anthropologist to talk of "social systems". I accepted them only as heuristic devices that enabled me to understand and better analyze social phenomena. Indeed a major consequence of anthropological (or sociological) training ought to be to enable the anthropologist to view institutions in relation to one another, and in relation to the whole, even if the whole happens to be, an anthropologist's own construct." (Srinivas 1997, p 14).

I would argue that 'heuristic devices' are the analogues of theories or statistical hypotheses in the tradition of Popper (1959) and their tentative non-rejection until sufficient data emerge to reject them beyond reasonable doubt, that is at conventional levels of statistical significance, is also in the same tradition. Indeed in Srinivas (1997) and Srinivas (2003) there is no evidence that he rejected Structuralist-functional model either as a theory or on the on the Popperian ground that the available data statistically rejected it beyond reasonable doubt.

<sup>6</sup> In his email to me conveying his comments on my lecture, Kaivan Munshi said: "My comments are more general and have to do with the caste system and its relevance for economic activity... Srinivas is best known for his sociological theories of caste dominance and hypergamy. However, I am unaware of empirical work that has documented either phenomenon as being widespread or important. A recent paper on local caste politics that I have written (together with Mark Rosenzweig) finds no evidence that dominant castes play a significant role in village life...From the perspective of growth and development, this aspect

One is of course the village based micro-narrative of rural India by itself. The other is to look at the macro or “big picture” of what is happening in India, rural and Urban. In the middle part of the lecture I will discuss the two narratives, starting with a digression on Tamil Brahmins<sup>7,8</sup>. These two narratives need to be combined, interwoven,

---

of the caste system may have greater relevance than the hierarchical aspect that Srinivas (and other social scientists who followed him) are concerned with.”

In my response I pointed out that Srinivas focused on *whether caste system* in Hinduism can be eliminated root & branch, as Ambedkar wanted to do and failed, so that he embraced Buddhism. I have not read anything of Srinivas on hypergamy. He argued in his last paper (posthumously published in EPW in 2003) that “while caste *as a system* is dead or dying, individual castes are thriving...the moral to be drawn is that an ideological attack on caste which is not backed up or underpinned by a mode of social production ignoring or violating caste based division of labour is totally inadequate. **A combination of wholly new technologies, institutions, based on new principles, and a new ideology which includes democracy, equality and the idea of human dignity and self-respect has to be in operation for a considerable time in order to uproot the caste system**” (emphasis added). I see your work with Mark as supporting rather than rejecting the Srinivas conclusion.

In an email acknowledging my response Kaivan said; “The points you made below make complete sense to me - thank you for the clarification.”

<sup>7</sup> This digression was motivated by Srinivas’s remark in the very first chapter of his doctoral thesis that “An important process in Mysore, if not in South India as a whole, is the urbanization of Brahmins. This process is yet to be studied, and its many consequences and implications understood. This process has gone on for a hundred years or so... it is not necessary for me here to consider urbanization in all its complexity, and my statement that Brahmins were the first to urbanize and many other rural castes followed remains broadly true” (Srinivas 1976, p 5-6). I will also comment on India’s current urbanization in the digression.

<sup>8</sup> Distinguished anthropologist Arjun Appadurai of New York University, formerly my colleague at Yale, in his email to me on my lecture, raised a number of points. First, he correctly points out that Tamil Brahmins are “in every way a special case: a tiny percentage of the population, disproportionately influential, but somewhat minor players in electoral and legislative politics. How can their history teach us about India today?”

As Srinivas himself noted, Brahmins in general were the pioneers in migrating from rural areas to urban areas, becoming westernized and transforming themselves from being petty landlords in rural areas to a service oriented urban middle class, and later in taking advantage of the change in race/nationality based US immigration quotas to skill based ones and also in seeing an opportunity for

---

advancement in the emergence of information technology. Their commitment in supporting the southern languages, music, culture and religions in the rest of India or abroad to which they migrated has relevance to others of all castes and classes who are contemplating migration, be it from rural areas to urban areas within India, or from urban areas to foreign countries, particularly because they were able to achieve so much without strong electoral and political presence in most of India and abroad.

Arjun suggests that I should pay more attention to small towns which are vital links in the continuum from rural to urban and today involve lot of aspiring elites both as income generators and consumers. "Are they in your statistical data, and if not, what can we do about them?"

They are indeed in the Statistical Data. Census definition of an urban area consists of four categories (i) Statutory Towns (ii) Census Towns, that is places (a) with a minimum population of 5000 (b) at least 75 percent of its male main working population engaged in non-pursuits and (c) a density of population of at least 400 per sq. Km. (iii) "urban agglomeration", which is a continuous urban spread constituting a town and its adjoining outgrowths (OGs) or two or more physically contiguous towns with or without outgrowths of such towns and (iv) An Outgrowth is a viable unit. such as a village or hamlet or enumeration block made up such village or hamlet and clearly identifiable in terms of its boundaries and location.

Between 2001 and 2011 the fastest growth (near tripling) was exhibited by the number of census towns. Some of the towns in categories (i) and (ii) are part of Urban Agglomerations UAs) and the rest are independent towns (Towns), thus the urban frame consisting of UAs/Towns was 6166 in 2011. Urban Population (i.e. the population of 6166 UAs/towns) in 2011 was 377 million or 31.16% of total population. There are further sub-divisions of UAs/Towns by size of their populations into Class I (with 70% of urban population), Million Plus (42% of urban population) and the three Mega Cities (with 13% of total urban population). It is very likely that the faster growing census towns are likely to be near metropolitan cities and Class I towns. On a future occasion I will attempt an analysis of the census towns. While I do agree with Arjun's point, that such towns that dominate the peri-urban area are not quite rural or urban, they now dominate sectors like real estate, education, and increasingly health care centres such as multi specialty hospitals, let alone multi-cuisine restaurants.

Arjun's point that OBCs have little interest in Sanskritization is not a surprise since as I argued in my lecture since they are dominant land ownership by size and hence dominant castes in Srinivas's framework. As such do not need Brahminical dominance in the purity/impurity sense of caste hierarchy.

Arjun's last comment, which he admits is only loosely related to my paper, is about the lack of interest in Sanskritization as a social aspiration by those marching under the Hindutva banner and asks where this fits in my analysis. In

in order to get anywhere further. This has been done before, but not for long time. This is a major priority.

It so happens that a book on a sub-group of South Indian Brahmins, namely, Tamil Brahmins, by C.J. Fuller, Professor of Anthropology at the London School of Economics, and Haripriya Narasimhan, Assistant Professor of Social Anthropology and Sociology at the Indian Institute of Technology, Hyderabad, had been published in 2014 by University of Chicago Press. The two authors were interviewed by Radhika Santhanam in *The Hindu* of November 22, 2015. The book and the interview further motivated the digression. After the digression, I will explore shocks exogenous to village society, including technology, public investment and the endogenous responses, possibly differentiated across social groups, to the shocks. I will end with a discussion of interdisciplinary research and some important topics for consideration as an agenda for interdisciplinary research about rural India in honor of Srinivas.

I will begin with emphasizing the continuing importance of Rural India and the need for an analytical framework for studying it. I will then lay out Srinivas's Structuralist-Functional model as a potential framework, particularly its concept of Dominant Caste and its functionalist approach to the relations of the dominant caste with other castes and non-Hindu groups, and the dynamic processes of Sanskritization and Westernization over time. The analytical foundation for this model, paraphrasing Srinivas (2003), is a local subsistence non-monetary economy of a cluster of neighboring villages, largely self-sufficient in its production of food grains and necessities. The overarching value of the culture was acceptance of, if not necessarily satisfaction with, one's lot. Economic relations such as

---

my view Hindutva is a movement for political domination of minorities and little to do with purity/impurity and ritual based dominance within the Hindu society.

division of labor were embedded in social relations primarily inter-caste relations sanctioned by custom and morality. The structure of relations was stable over time, hierarchical, with the share of one's land ownership in total arable land in the cluster determining one's rank in the hierarchy of production relations. At the same time caste ranking by ritual notions of purity and impurity was not identical but congruent with ranking by land ownership (Srinivas 2003, p455-456).

By comparing what we know about the reality of Rural India of the second decade of the 21<sup>st</sup> century CE, with what the dynamic processes in the Srinivas framework would have projected, I will argue that the framework is broadly consistent with the available factual data and in particular, that class has not yet replaced caste as the dominant factor. After a brief digression on Tamil Brahmins I will explore shocks exogenous to village society, including technology, public investment and the endogenous responses, possibly differentiated across social groups, to the shocks.

The concluding section of the lecture will try to look ahead from India's current status to what is needed to do to achieve its aspiration to be a global power with rising levels of living. I will argue that among the needed actions is to promote interdisciplinary research and then cite several examples.

### **III. The Continuing Importance of Rural India**

According to Registrar General (2011) the decennial population Census of 2011 (15th since 1872) showed that out of India's total population of 1210 million, 833 million or 69 per cent was rural representing a decline from 72 per cent in 2001. India's urbanization is by no means rapid by international standards although there is some suggestive evidence that it may be accelerating. Gap in literacy rates between rural and urban areas of both males and females is closing.

In 2011-12, 55 per cent (56 per cent) of rural (urban) males and 25 per cent (16 per cent) of females were in labour force according to usual (principal plus secondary activity) status. The worker population ratio was 46 per cent in rural and 36 per cent in urban areas (Registrar General, (2011). Given that 69 per cent of the population is rural, rural shares of gross domestic expenditure on household consumption and capital formation would be substantial, though lower than the population share, since urban per capita income is likely to be significantly higher than that of its rural counterpart.

Apart from its size in an absolute sense as well as its share of all India values of major economic dimensions, because of the fact that rural and urban India are interlinked parts of India, what happens in rural India will determine pace of migration to urban, what happens in urban affects social dynamics in rural (e.g. through remittances, markets). An analytical framework such as Srinivas's is essential to understand this interplay.

## **IV The Basic Analytical Framework of Srinivas**

### **IV.1 The Concept of Dominant Caste and its attributes**

"When a jati owned the bulk of land in a village, and enjoyed numerical strength, it exercised dominance in village affairs, everyone obeying its decrees, even castes marked ritually higher. Such jatis existed in most parts of rural India, and I called them dominant castes. Another pan Indian phenomenon was the existence of a large overlap between landlessness and traditional 'untouchable' castes, a fact which enhances their ['untouchable' castes'] poverty, misery and exploitability" (Srinivas 2003, p 455). Thus, for a caste to be dominant, it should own a sizable amount of the arable land locally available, have strength of numbers and occupy a high place in local caste hierarchy. When a caste has all the attributes of dominance, it may be said to enjoy decisive dominance.

## IV.2 Structural-Functional Approach to the study of Society

It studies a society in terms of its constituent parts and their socio-economic-political relationship with each other in order to maintain the society as a whole. In his autobiographical essay, Srinivas admits that “the task of looking at the Coorg material from a structural-functional point of view [as suggested by one of his teachers at Oxford, Radcliffe-Brown (R-B)] proved to be exciting. It looked as though the material was crying out for such an analysis. I also had the satisfaction of fleshing out a few simple –sounding but key concepts of R-B’s such as “ritual idiom” and “spread” in the analysis of Hinduism. The social structure of the Coorgs, when analyzed, fell into clear, distinguishable units, each with its own cult, the cults formed a hierarchy, from lineage to Pan-India Sanskritic Hinduism”(Srinivas 1997, p 9). Srinivas admits that, “After I completed my analysis, I felt I had not probed deeply enough and the feeling remained with me, but two recent verdicts on my effort, Singer (1996) and Goody (1995) have been more positive than I could have dared hope.”

For me as an economist the structural functional approach to analyzing a society sounds analogous to formulating a structural model of an economy as a set of interdependent relationships among economic variables. Indeed Srinivas’s characterization of it as a localized system of production of food grains and other necessities... based on a caste-based division of labor and its characteristics such as that, “it was local, a cluster of neighboring villages forming a unit” for production and exchange and that “The cluster could claim a large degree of self-sufficiency as far as the production of basic needs are concerned... cash was scarce and used minimally, the artisan and servicing castes being paid with grain at the annual harvest.” is in fact close to a description of an economy in a long run or steady state equilibrium. However, issues arise as to whether these relationships

are an analyst's purely empirical abstraction of a complex reality or whether normative considerations (for example, social welfare maximization) led to them. To me the structural-functional point of view seems to **assume**, rather than **derive** its relationships from some normative basis. In particular, **the explicit assumptions** that (i) the overarching value of the culture is contentment with one's own lot (ii) social relations in which economic relations are embedded are sanctioned by custom and morality (iii) patron-client relations in the village are durable with **the implicit** assumption that (iv) the members of the society not only agree that durability is in itself a social virtue but also that this agreement is, to use a game theoretic term, 'Common knowledge' among them, together lead to the socio-economic relationships of the cluster, rather than some normative process such as social welfare maximization.

In an economist's structural model, a sharp distinction is made between **exogenous variables** that are determined outside the economy being modeled and hence are 'given' to it, so to speak, and **endogenous** or jointly dependent **variables** representing that economy's responses to the exogenous variables and to each other. Put in a different way, a **structural model** is a set of relationships that "explain" each endogenous variable in terms of one or more of other endogenous variables as well as exogenous variables; whereas a **reduced form model** in effect would "solve" the structural model for each endogenous variable as a function of exogenous variables only. I will not go into sufficient conditions for the existence of equilibrium and its uniqueness if one exists and into the purely econometric issues of identification and estimation of the structural relationships. It suffices here to say, using a slightly different terminology, the analogues of and the distinction between the 'driven' variable and 'driving variable' also arise in structural-functional models of Sociology and Social Anthropology. For example, Srinivas's concepts



of Pan-Regional(Pan-Indian) Sanskritic Hinduism could be deemed as the ‘driving’ or **exogenous variables** for a village or cluster of villages (region), while the rituals of a cult of a particular village or cluster in the region (particular region) would constitute the ‘driven’ or **endogenous variables** of the structural-functional relationships at their level.

Depending on the issue being analyzed, modeling a village as if it is insulated from the rest of the world with respect to its socio-economic, cultural, religious and political relations, thus abstracting away all such relations would be lot simpler without necessarily biasing significantly any of the intra-village relationships estimated from village data. On the other hand, if for example, the village is not self-sufficient in major staples, has to grow and trade with the rest of the world, some non-staple crops or produce and trade some simple manufactures, its trade relations with others cannot be abstracted away. Indeed in the contemporary globalized world, international trade institutions and policies are very important. For this reason, global general equilibrium models involving several countries are estimated for assessing the impacts of trade policies and international trade agreements. Put another way, at one end of the spectrum of models is a model of each village by itself. At the other end is a very large global model in which villages, regions, countries, and their trade and non-trade relations at a point in time and over time are incorporated. Needless to say, the data needed for building such a comprehensive and global model are formidable.

Coming back to Srinivas’s framework, he defined two processes: Sanskritization and Westernization. Srinivas first used the term Sanskritization “in the context of social change and social mobility, when an individual or his/her Jati captured political power or became wealthy over a period of time, he/she or Jati emulated the customs,

ritual and life-style of a higher caste. Eventually a myth or purana came into existence claiming noble origins for the caste and changing the caste name by adding a suffix or characteristic of one or the other of the three twice-born varnas<sup>9</sup>. Sanskritization occurred right from the earliest times in Indian history. Thus individual jatis were able to move up in the caste system by Sankritization themselves.” (Srinivas 1997, p16)

Although Srinivas does not mention it, the coming into existence of a caste purana had its geographical *analogue* in locations of pilgrimage centers with major temples in the coming into existence of a local ‘punya-sthala purana’ claiming the association of the temples with one of the major characters of the puranas of Ramayana, Mahabharata, Bhagavatam, Matsya Purana, Skanda Purana, Vayu Purana and so on. The Ramanatha temple at Rameswaram with its ‘punya-sthala purana’ of Rama (human avatar of god Vishnu) having

<sup>9</sup> The Sanskrit word ‘varna’ means colour. It is commonly interpreted to mean skin colour. However, it is widely used to indicate occupational classification of the population into four groups: the Brahmins who are priests, teachers and scholars; the Kshatriyas who are warriors, Vysyas who are traders and merchants and Sudras, the workers. Except the Sudras, the other three groups are deemed twice-born, with their first birth denoting their physical birth and their second birth denoting their formal initiation into their occupation such as the ceremony of Upanayanam in which a Brahmin boy is taught the Gayatri Mantra, and the daily rituals as a brahmachari and is entrusted to a Guru to teach him the scriptures, literature and arts to enable him to practice the profession of priest, artist and teacher. Similarly, warriors (traders) are born the second time when they are formally initiated into their professions.

In the Dharmaśāstrs, the phrase Varnaśramadharmā is used to denote ‘aśramas’ or stages of life of a male as a brahmacharya (student), Grihastha (as a married householder), Vanaprastha (literally an itinerant in the forests) and finally, sanyasin (as one who has renounced all attachments such as to one’s family, occupation, etc).

Varnas are not mentioned in the Vedas except in the Purusha Sukta Slokas which some claim are later insertions. Also varnas are not the same as Jati or castes.

See also Chapter 5 on Varna in Srinivas (1992).

worshipped god Siva at the local temple (for that reason the deity of the temple is named Ramanatha) is an example. But it is by no means the only one. Clearly viewed in the context of a perpetual competition for upgrading one's caste or a pilgrimage centre improving its relative standing for attracting pilgrims, a competitive 'myth' or 'purana' manufacturing industry seems natural!

Srinivas argues that "in the context of modern India, mobility [across the caste spectrum] not only involves Sankritization but also Westernization. In several parts of the country, the higher castes (Brahmins in particular) took the lead in westernizing their life-style, and while the higher castes were Westernizing, the so-called lower castes were Sankritizing. This should not be interpreted to mean that the upper castes were throwing out their traditional culture or that the lower castes were not Westernizing. Both were occurring in each category, but since Western education had spread more widely among upper castes, and more of them had white collar jobs, Westernization was more conspicuous among them. The processes of improvement of communication, the activities of holy men, spread of the popularity of pilgrimage and of education in rural areas, all contributed to the increased popularity of Sankritization" (Srinivas 1997, p 17).

In his own overview (Srinivas 1996) of social change in modern India using concepts of Sanskritization and Westernization, "one of the features that stood out was the crucial role played by dominant, land-owning castes in the transmission of culture forms, ideas, patterns of behavior to the people within their jurisdiction. They favored the spread of some forms and ideas while they frowned on certain others, and these elements varied from region to region." (Srinivas 1997, p 17)

Srinivas (ibid, p 18) notes that "a most interesting and important feature of recent assertions of equality by the Dalits (ex-untouchables)

is, ironically through Sanskritization” and cites Neera Burra (1996) who studied the Mahars of Maharashtra, for their deliberate practicing of the forbidden rites and rituals of the upper castes as a means of asserting this right to equality knowing full well that the upper caste can do nothing about it.”<sup>10</sup>

Paraphrasing Srinivas’s (ibid, p 17-19) formulation, Westernization has several facets all of which involve secularization and India’s large and growing middle class is becoming increasingly Westernized and Westernization in one form or another is being seen as essential to upward mobility. Because of the various forces acting on caste in the past one hundred years or more, and in particular, since independence, the jatis or sections of jatis have broken free from their villages or other local cages to form large jati categories straddling large tracts of the country to compete for such resources as political power, economic opportunity, education. Success in such efforts results in upward mobility for the jatis. This competition is in total contrast to the intra-village cooperation among sections of jatis and its emergence weakens purity-impurity ideas. Srinivas concludes that finally with the rejection of the ideology of hierarchy, both in the constitution, and among large sections of the people, all point to a **systemic change**: as caste as a system breaks down, individual castes are likely to continue as

---

<sup>10</sup> In his emailed comments on my lecture, my former Yale colleague and friend, Professor Sivaramakrishnan of Yale Anthropology department sees the Dalit response to caste as including “some Sanskritisation, but mostly Westernization as the latter is what Ambedkar advocated, and as Dalit politics has become more assertive and effectively mobilized, the tendency to see Westernization as the preferred response to social mobility becomes more pronounced” and cites Dalit intellectuals Gopal Guru and Kancha Iliah in support. Sivaramakrishnan but certainly I, had not imagined the emergence of the ongoing violent backlash against Dalits in several states. I wonder what Srinivas would have thought of this phenomenon and more generally of the climate of intolerance against minorities and of vigilantism of organisations such as Go-Raksha Samitis to the extent of lynching of anyone who is suspected to eat and keep beef at home. Those of us who cherish the idea of India as a secular democracy are in distress.

they secure a variety of benefits. “As India becomes more urban and heterogeneity becomes the norm, ethnic – including caste identities are likely to assume greater importance” (Srinivas 1997, p 19).<sup>11</sup>

Other than referring to the consistent interpretation of Courts of “backward classes” [the phrase in legislation] as “backward castes”, Srinivas in the section entitled “Whither Caste” in his essay does not ask whether the concept of class will replace caste in the discourse on social stratification in India. However in Srinivas (2013, p 456) he argues that “the existence of a measure of congruence between land ownership and high ritual rank has led some interpreters to equate caste with class, representing a gross oversimplification of the reality.” Nor did he find persuasive the claim of Louis Dumont (1971) that the disjunction between ritual rank and power is the hallmark of caste. Clearly Srinivas did not believe, perhaps rightly, that class will replace caste.

Dipankar Gupta (1991) argues that to ask “whether caste is giving way to class is an outcome of conceptual fogginess. There is no reason to believe that if there is caste there cannot be class, nor is the case that as one grows that the other must weaken... a concept should be independently defined. Caste and class after all do not constitute a continuum. He emphasizes that “structural-functional relations, particularly the economic ones, have hierarchical and social stratification implications in terms of caste as well as in terms of class. For this reason, caste and class can co-exist in terms of being

---

<sup>11</sup> Professor Narendar Pani of NIAS in his brief email to me on my lecture drew my attention to the possibility that some dominant castes have crept into the Other Backward Castes (OBC) list and I should note it while discussing the size of OBC’s in contemporary rural India. Neither he nor I anticipated the violent agitation in February 2016 in Haryana of the economically dominant Jats for inclusion in the OBC list. Similar agitations in other states by some excluded castes to be included in the OBC list are ongoing or likely to be initiated.

different labels, but fulfilling the same kind of role in terms of being a kind of guideline/ladder for social advancement”<sup>12</sup>. One could argue that Westernization was further encouraged by globalization and perhaps induced the Pan Indian cooperation among caste group a la Srinivas’s Horizontal Integration, whereas the Sanskritization process is one of competition across castes. I will come back to the class-caste distinction in Section VII.

## **V. Contemporary Rural India: A Statistical Picture<sup>13</sup>**

NSS collects data on Land and Live Stock Holdings (LHS) every ten years. The latest survey was in the 70<sup>th</sup> Round (2013). Report 571 on Household Ownership and Operational Holdings in India presents a wealth of data including particular data from the last five LHS provide a picture of trends over time. In addition to LHS, a survey called Situation Assessment Survey of Agricultural Households was also conducted in the 70<sup>th</sup> Round (2013) and Report KI (70/33) presents its key findings. Complete set of findings from the survey are available in Report 569. Some selected tables from the two surveys are presented here. NSS also collects Land Use and Statistics (LUS) based on data recorded by revenue officials (Patwari, Karnam, etc.) in their annual Girdawri. The LHS and LUS data differ. Other than pointing this out as indicating the need for caution in the use of the data, I will make no further mention of the discrepancies. It may also be mentioned that the LHS survey is of rural households only. Rural land owned by households living in urban areas is not included. This has to be kept in mind in interpreting the data particularly of tenancy, for example total area leased-in.

Statement 3.1 shows an increase by a little over 5 per cent in the

<sup>12</sup> See critical comment of Sudhir Chella Rajan on Dipankar Gupta and André Béteille in footnote 20 below.

<sup>13</sup> Tables of this section are in Annexure I

total number of rural households during 2003-2013. On the other hand, the Census 2011 data show an increase of 12.2 per cent in rural population during 2001-2011. Reconciling these two figures would suggest that the average size of households must have increased. This seems unlikely. Statement 3.2 interestingly shows that the land holdings distribution by size category of Other Backward Castes (OBC's) is close to that of all castes taken together. In other words, in 2013, OBC's are the dominant caste in land holdings in rural areas<sup>14</sup>. This is consistent with Srinivas's analysis of Rampura and one of the findings in Srinivas's overview, namely the crucial role played by dominant land-owning caste. Statement 3.3 shows, except the Scheduled Castes with less than 50 per cent being self-employed, all other social groups happen to be self-employed, predominantly in cultivation. This again is not a surprising since to be self-employed one needs some land or physical capital which the scheduled caste households are likely to have less of. Statement S3.3 shows substantial inter-state variations in employment patterns.

---

<sup>14</sup> My friend and one time coauthor of a paper, Thomas Weisskopf of University of Michigan, in his email to me on my lecture while agreeing that Statement 3.2 as well as Statement 4.4, "do suggest that the number of OBC's landholdings is far greater than that of other social groups", asks "does this fact alone imply [as I argue] that the OBC's are dominant in rural areas? I would think that such a conclusion would depend on the size—rather than numbers of holdings; and the last lines of Statements 3.2 and 4.4 suggest that upper caste groups are dominant". While it is true that compared to OBCs the social group 'others' which includes upper castes does own more land per household and in its distribution of landholdings by size the share of category 'large' is higher, its share of total land owned is 32 percent as compared to 46 percent for OBCs and only 23 percent of all households are in group 'others' as compared to 45 percent who are OBCs. Thus by sheer numbers and the extent of land owned OBC's are the dominant castes. I would claim that with the dominance in the two categories, dominance in terms of politico economic power would follow. In response to Tom's other question whether dominance in all the six attributes that are seen to be associated with dominance are necessary for it, I would argue that there is an implicit ordering of the attributes in terms of their necessity and desirability. Dominance in numbers and landownership are strictly necessary for dominance but the rest are desirable and would strengthen the power of dominant castes if present while not being strictly necessary.

Statement 4.1 shows a steep decline by 14 percent of estimated area owned between 2003 and 2013 as compared to a little over 8 percent decline between 1992 and 2003, virtually no change between 1971-72 and 1982, also a small decline between 1982 and 1992. A significant decline in the percent of the landless from 10 per cent in 2003 to 7.41 per cent in 2013 is also observed. It is possible that land ownership has shifted to households not resident in rural areas and hence are not included in the survey and that some of the landless households of 2003 have migrated out of rural areas. It is likely that a possible quickening in the pace of out migration from rural areas, particularly those near metropolitan cities could have also contributed to the shifts.

Statement 4.2 shows that the percentage of number of households has progressively declined for all size categories except the marginal. In terms of area, the percentage area owned has increased for all categories except medium and large.

Statement 4.4 of the distribution of land by social group<sup>15</sup>, shows that OBC's own 42 million (or 46 percent) hectares of the 92 million hectares owned by all social groups. The category "other" consisting in particular of upper castes, owned 30 million (or 32 percent).

This concentration of 78 percent of village land in the hands of OBC and upper castes is consistent with Srinivas's framework since the OBC categories includes dominant peasant castes, such as the peasant caste Vokkaligas in Rampura, and some of the upper castes (e.g., Lingayats and Brahmins) as well as non-Hindu groups owned land.

---

<sup>15</sup> Sivaramakrishnan in his comments suggests that while OBCs in many parts of India are perhaps the new dominant castes and in their case class and caste converge, unlike the dominant castes of an earlier type, they face contestation by other castes of their dominance and also with the shift to the cultivation of riskier and costlier water-fertilizer intensive high yielding varieties, they do not see the same prosperity enjoyed by earlier high castes in agriculture.



Unfortunately ownership data by social groups are not available for earlier years so that it cannot be concluded, though it is plausible, that the OBC's and upper castes consolidated their dominance in land ownership over time.

Statement 4.6 and 4.7 provide data on tenancy. They show that the extent of tenancy in terms of the extent of the land leased in or leased out is small and because of some of the land leased in by rural tenants is owned by urban landlords, the total area leased in exceeds area leased out. After falling from 15 per cent in 1992 to 12 per cent in 2003, the percentage of households leasing in land has risen to 14 per cent. In any case, area leased in is a small proportion of total area operated.

Statements 5.1, 5.2 and 5.3 provide data on operational holdings and their trend over time. Total area operated has declined by 25 percent since 1991-92 while the number of operational holding increased by about 15 percent during the same period resulting in a fall operated per holding by more than a third.

Report KI (70/33) of the Survey of Situation of Agricultural Households has data on various aspects of farming practices and preferences, availability of resources, awareness of technological developments and access to modern technology in the field of agriculture and levels of living in terms of consumer expenditure and indebtedness.

Statement 1 gives the estimated number of agricultural and rural households in the agricultural year ending July 2012 and the percentage shares of the former in the latter across states. In India as a whole, agricultural households constituted 57.8 percent of rural households with Kerala having the lowest share of 27.3 percent

and Uttar Pradesh having the highest share of 74.8 percent. OBC's accounted for 45 percent of the country's agricultural households, with the shares of SC and ST being 10 percent and 13 percent respectively. The category "others" that includes upper castes accounted for 26 percent of agricultural households.

NSS for good and valid reasons normally does not collect data on income. Yet its Report KI (70/33) provides income data. Statement 4 on principal sources of income shows that for households possessing 1 ha or more of land, a full 80 percent or more of income came from cultivation. For those possessing between 0.4 and 1 ha of land, cultivation accounted for 69 percent of their income with wage/salary employment contributing another 20 percent. Statement 6 shows the variation in principal sources of income across states, with cultivation accounting for a maximum of 86.8 percent in Telangana and a minimum of 16.2 percent in Kerala. The maximum share of wage and salaried employment, which includes regular wage and salaried employment as well as well as employment in casual labor was 33.4 percent in Rajasthan, with the minimum share 6.2 percent in Telangana.

More than 20 statements follow, many of them such as for example, the source of ration card held, sale of crops by households to different agencies, expenditures on consumption and production investment, indebtedness of households etc. From them I will present just a few important ones only.

Statement 5 presents the distribution of principal sources of income of agricultural households by deciles of monthly per capita consumption expenditure. It is no surprise that cultivation is the principal source for between 58-66 percent of the households across deciles.

Statement 11 provides state-wise distribution of the sources of ration cards. Households with no ration card varied from as low as 0.8 percent in Tamil Nadu to as high as 21.5 percent in Uttar Pradesh. Statement 12 is an important one - it provides data on an average monthly income from different sources, consumption expenditure and productive investment for each size-class of land possessed. Except for agricultural households that possessed 1 ha or less of land, for all other categories total income exceeded consumption plus investment. Statement 13 presents the same data as Statement 12 but according to monthly per capita consumption expenditure classes. For all deciles except the richest, income fell short of consumption plus investment, this naturally leads to the data on sources of loans (Statement 15). Even after nearly 5 decades of nationalization of major banks and opening of rural branches, only 43 percent of the outstanding loans are from a bank and for a full 26 percent, the source is agricultural / professional money lenders. Statements 17A, 17B, 18A, 18B, 19A, 19B, 20A and 20 B all relate to sales of agricultural households of their harvest to different agencies. Except for sugarcane, very few agricultural households sell to cooperative and government agencies. Awareness that opportunity to sell at minimum support price (MSP) was available, and also that a government procurement agency that offered MSP was available as well, did not influence sales to procurement agencies except with respect to sugarcane and paddy to a lesser extent. The reasons for not selling to government procurement agency included that farmers received a better price than MSP from other buyers.

The functional inter-relations among castes of Srinivas's framework though weakening have not disappeared altogether. For example traders, shop-keepers as well as agricultural moneylenders as major sources of credit to peasants who need credit both for working capital for purchase of agricultural inputs such as fertilizers, for

consumption until harvest and for expenses of marriages, funerals etc. Events such as the death of the principal income earner can put a peasant family into debt.<sup>16</sup>

The landlord as a supplier of land as well of credit, both for consumption and for input purchases to his tenant or share cropper and the tenant in turn as a supplier of labor and demander of land, credit etc led to a large theoretical and empirical literature on interlinked rural markets and a debate ensued on the welfare implication of the linkage such as whether already significant dominance of land owners was enhanced by him being source of supply of credit.

The contributors to the theoretical and empirical literature on tenancy and share-cropping included many well-known economists including Joseph Stiglitz, Pranab Bardhan, Clive Bell, Debraj Ray and others. A project for the World Bank on tenancy, credit, labor and product markets in Andhra Pradesh, Bihar and Punjab with Clive Bell and I as Principal Investigators supported some of this research (Bell, Srinivasan and Udry 1997). My limited experience in field work was in Bihar under this project.

---

<sup>16</sup> In contemporary accounts, farmer suicides are attributed mostly to failure of crops such as High Yielding Varieties of cereals and cash crops including BT cotton and sugarcane. Many of these crops need irrigation and the use of chemical fertilizers and pesticides to reap the full benefits of their sowing. Borrowing from non-institutional sources, primarily moneylenders, at high interest rates for investment in irrigation and purchase of fuel, fertilizers, pesticides, etc and the inability to service debt thus incurred as the cause of suicides. However it often turns out that much of the debt that a farmer cannot service was accumulated over a long time and was incurred for various purposes many of which had little to do with farming.

**VI.A Digression on Tamil Brahmins or Brahmins<sup>17</sup>**

The book *Tamil Brahmins* is by C. J. Fuller, Professor of Anthropology the London School of Economics and Haripriya Narasimhan, Assistant Professor of Social Anthropology and Sociology at the Indian Institute of Technology, Hyderabad. In their interview with Radhika Santhanam of *The Hindu*<sup>18</sup>, the authors say that their book is the outcome of a new project on Tamil Brahmins since the 1950s and 1960s and it “combined ethnographic research on them in villages, in Chennai and other Indian cities, and overseas and also used older ethnography, historical materials, and so on. The book discusses the unusual position of Tamil Brahmins at length and from different perspectives. In the concluding chapter, it compares them with other Brahman and non-Brahman communities throughout India on which there is reasonably good information.”

The authors’ general conclusions are: “First, Brahmins ... have been more completely transformed than any non-Brahman agrarian castes into modern, urban, middle-class groups. Second, although it is impossible to say whether they are unique, Tamil Brahmins are extremely unusual in how fully they have been transformed into an urban middle-class caste, so that they now constitute a social class-cum-status group, internally divided into upper and lower strata, which is itself structured by an isomorphism between Tamil Brahmanhood and middle classness.(p 227)

<sup>17</sup> In his comments, Sivaramakrishnan points out that the response of Tamil Brahmins to Westernization has been very varied—by income wealth, education and participation in the international diaspora. He found C.J. Fuller’s restudy the Madurai Meenakshi Temple Priesthood and his more synthetic book *The Camphor Flame* much more interesting than the one on Tamil Brahmins. The spread of temple going by all castes in Tamil Nadu has rejuvenated the priesthood and more Tamil Brahmin youth are finding the vocation attractive and are combining being priests and a fairly westernized life styles and traveling overseas to be priests to the diaspora as well.

<sup>18</sup> <http://www.thehindu.com/opinion/for-tamil-brahmins-caste-and-class-are-one-and-the-same-thing/article7904428.ece>

The crucial point about this isomorphism is, put simply, that Tamil Brahmins, unlike other communities, are now overwhelmingly an urban middle-class — and are assumed to be by Tamil Brahmins themselves; furthermore, this means that their caste and class positions are seen by them as one and the same thing. Hence, for example, success in the IT profession tends to be explained by many Tamil Brahmins by their caste's supposedly superior intellectual ability, whereas in fact that success is mainly a product of their middle-class family background, good education, cultural capital, etc. (Neither it is, incidentally, a product of Tamil Brahmin, monopolistic control over IT companies. Popular anti-Brahmin explanations of Brahmin success are no more accurate than Brahmin ones.)"

When asked whether their staying clear of the politics in the book is deliberate, they respond: "Our informants were consistently dismissive about politics, which they regarded as mostly a corrupt waste of time, and they never wanted to talk about it much — except to make stereotyped complaints about reservations. It is standard ethnographic methodology to concentrate one's effort on the topics that most interest one's informants, and that is what we did. The book says little about modern politics because Tamil Brahmins say little about it."

The authors were asked about the apparent contradiction between their reference to the process of "de-Sanskritisation" that implies their giving up age-old customs which defined them and gave them superior status and yet maintaining a superior status, the authors' response is interesting and plausible: "The word 'de-Sanskritisation' occurs once in concluding the chapter on the changing position of women (p 151), but only to say that this is not a process that Tamil Brahmins would recognize. It does indeed look contradictory to give up customs that defined superior status, while still maintaining a

claim to superior status. But the simple solution to this contradiction is to insist, after the change, that the custom — e.g. child marriage — was never really important for the community anyway. This solution is not peculiar to Tamil Brahmins — it is found among many changing communities everywhere, whose members abandon inconvenient age-old customs, claim afterwards they never mattered much anyway, and adopt new customs.”

It can be argued that the authors’ solution for the apparent contradiction reflects the flexibility of the Tamil Brahmins in their adherence to rituals, diets etc and their ability to rationalize any deviation from prescribed rituals. A widely repeated, though most likely apocryphal story goes like this. A Tamil Brahmin student is to travel to the US for graduate studies and as is customary he performs the ritual of “Yatra Danam” in which a Brahmin priest is invited to do a puja invoking the blessings of the gods for a safe journey and return after successfully completing his studies for the student. After the puja is completed, the student tells the priest of his concern that he may have to eat, heaven forbid, beef abroad. The priest tells the student not to worry: “Son, first of all you will not be eating our cows and second, when you return home you will do a purificatory ritual that would require you to imbibe “pancha gavya”!<sup>19</sup>

More seriously, I wonder whether the authors note the three important institutions that Tamil Brahmins and more generally South Indians, established when they migrated within India or abroad. The very first was to build a temple at which idols of all principal deities of Hinduism were installed for worship. The temple also served as a community hall to observe Hindu religious festivals and rituals as well as celebrate marriages. The second was to build

---

<sup>19</sup> The phrase pancha gavya denotes a ritual mixture of five products from a cow, namely, milk, curd, ghee, dung and urine.

a school in which their children could learn South Indian languages in addition to the local language. The last, but not the least, is to constitute a music sabha and eventually build an auditorium for holding concerts in carnatic music, performance of Bharata Natyam, Kuchipudi, Yakshgana and other classical and folk singing besides other meetings of the community.

Running the clock fast forward, learning music or dance by (Non Resident Indian (NRI) students from Gurus in India through Skype is now ubiquitous. Moreover, in the well-known December Music Season in Chennai in recent years, NRI artists perform. One Chennai Sabha, Hamsadhwani in Adyar even hosts a series of concerts by NRI artists during the annual Music and Dance Season. The ways in which the South Indians and others in the diaspora have adopted modern technology available abroad to pursue their religion, language, culture and business are many.

As a Tamil Brahmin who has lived in Chennai, Delhi, Kolkata and Mumbai and who has attended concerts in the music sabhas of these cities, I can testify to their popularity among south Indians as well as other residents of these cities.

Coming back to Srinivas's interest in historical data, let me relate my attempt to explore the Tamil trader groups such as Ainnurruvar (group of five hundred) in South East Asia during the Chola period. These groups had been studied by Late Noboru Karashima (1984) of Tokyo University. I wanted to examine whether like the Maghrebi traders in Europe, studied by Avner Greif of Stanford University, Ainnurruvar also had mechanisms for settling disputes among themselves. I talked to the historians in Tamil Nadu about this idea and I was thoroughly discouraged by their dismissal of the proposal on the grounds that inscriptions relating to Ainnurruvars



in Tamil Nadu have no information on any aspects of disputes and their settlement.

## **VII. Responses to and Impacts of External Shocks on a village**

Although Gandhians promoted the concept of a self-sufficient village that was in effect insulated from the rest of the country and the world, no village can really be literally insulated. In any case, shocks that originate elsewhere such as for example weather, epidemics, and opportunities for beneficial exchange do impact on village societies. Among these shocks, one of the most important is technological shocks as well as infrastructural investment, particularly public investment.

Professor Scarlett Epstein, a student of Srinivas, in her 7<sup>th</sup> Srinivas Memorial lecture Epstein (2007), referred to Srinivas's emphasis on development orientation and poverty alleviation and his suggestion that she should study the impact of the large Krishnaraja Sagar Irrigation Scheme on the socio-economic system of Mysore rural societies. She did so by studying two villages, one in which villagers had access to irrigation from the scheme and a neighboring one which did not. I recommend her lecture for the details of the differing impact of the schemes as the two villages, reinforcing the pre-existing relationships in one and disrupting them in the other with different impacts on the intra-village income distribution.

Coming back to the caste-class distinction, Srinivas wanted to study Brahmins (and upper castes more generally) for their pioneering roles in Westernization and also in inducing other castes to Westernize as well as migrate to urban areas in search of education, jobs and so on. Fuller and Narasimhan in their book also discuss the migration of Tamil Brahmins from rural to urban areas of India and from India to North America & Europe but not apparently analyze the long term implications of the migration process as one of a set interrelated

political, economic and social processes. In fact, Srinivas (2003), his final lecture, was devoted to them as will be evident from below.

"I shall be arguing in this paper that the localized system of production of food grains and other necessities (from now on "basic needs") based on a caste-wise division of labor is fast breaking down all over rural India, and is likely to disappear in the near future. This event is of momentous importance for it augurs the end of a social order which has continued for 2,000 years or more." (Srinivas 2003, p 455)

"However, what is of vital concern to me is that money was used minimally, service and labor were rewarded with grain, or grain producing land and economic relations were an integral part of more inclusive bonds. Production was local, subsistence oriented, and occurred in a hierarchical framework." (Srinivas 2003, p 457)

"I am convinced that this system which has endured for over two thousand years is on its way out. I am confident that production will become freed from jati based division of labor, economic relations will become autonomous, and grain payments will be replaced by cash. Indian rural society will move, or is moving, from status to contract." (Srinivas 2003, p 457)

"The single most important engine of India's social revolution has been democracy based on adult franchise." (Srinivas 2003, p 457)

"A new feature of village life is the emigration of large numbers of people both seasonally and on a long-term basis." (Srinivas 2003, p 457)

"All in all, migration is now accepted in rural areas as a fact of life, and the development of roads and communications and ever expanding urban frontiers have facilitated this phenomenon. All in all, the social and mental space of villagers has increased considerably." (Srinivas 2003, p 457)

“In a word, the improvement of communication, the spread of education, a host of governmental policies favoring the weaker sections, political mobilization of the people, and the many technological changes referred to above has all had the effect of greatly weakening the link between jati and traditional occupations.” (Srinivas 2003, p 457)

After discussing the conflicts particularly from the assertions of their rights by Dalits and the roles played by Buddhism, Jainism and the Bhakti movements and their strong anti-hierarchical and anti-ritual stance and led by persons of all castes, classes and both genders, Srinivas notes that they failed to make a dent on caste hierarchy, because at the local level production continued to be based on caste based division of labour.

“It is the government of independent India which mounted a determined comprehensive and sustained attack on the institution and set in motion a programme of development which culminated in smashing the link between caste and traditional occupation. The jajmani system is beginning to disintegrate. In its disappearance lie the true seeds of equality.” (Srinivas 2003, p 458-459)

In conclusion Srinivas argues that first “The situation may be summed up by saying that a variety of forces are bringing about the destruction of the caste-based system of production in the villages and at the local level. The system served India well for two millennia, but it is giving way. On the other hand, individual castes are competing with each other for access to secular benefits. The conflict is likely to become sharper. India’s revolution seems destined to be a slow, bleeding one, largely unrecognized by the middle classes in urban areas” (Srinivas 2003, p 459) and second “The moral to be drawn is that an ideological attack on caste which is not backed up or underpinned by a mode of

social production ignoring or violating caste-based division of labor, is totally inadequate. A combination of wholly new technologies, institutions, based on new principles, and a new ideology which includes democracy, equality and the idea of human dignity and self-respect has to be in operation for a considerable time in order to uproot the caste system<sup>20</sup>." (Srinivas 2003, p 459)

<sup>20</sup> In an email to me following our conversation on M.N. Srinivas before I had finished drafting my lecture, Sudhir Chella Rajan suggested that I read recent work by Balmurli Natarajan (*Culturalization of Caste in India* - 2011 Routledge) and Milind Wakankar (*Subalternity and Religion* - 2010 Routledge), who are critical of the flattening out of hierarchy that is implied in readings of this thesis by Dipankar Gupta, André Béteille and others. He said in his email, "What I understand them to be suggesting is that Sanskritization arguments, along with other policies around classification tend to treat caste as a set of interest groups having lower or higher initial endowments, rather than having endogenous and systematic features of dominance and subordination, especially in relation to Dalits".

I did not have the opportunity to access and read the books of Natarajan and Wakankar and also an essay, suggested by Chella, of the anthropologist Bhriugupati Singh, until after the lecture.

I have responded to André Béteille's comments on my lecture in footnote 5. My reading of Srinivas (1997 and 2003) does not suggest that he ignored endogenous features of dominance and subordination in relation to Dalits. On the contrary he admits, "I am aware that regarding the subsistence economy of rural India, dependent upon a jati-based division of, as the essence of caste, I have made an assumption which may be unacceptable to some of my colleagues, sociologists, anthropologist and Indologists. However, I hope that the rationale for my assumption will become clear as I proceed with my argument" (Srinivas, 2003, p 455). After some reasoning with the assumption he finds that, "When a jati owned the bulk of land in a village, and enjoyed numerical strength it exercised dominance in village affairs...Another pan-Indian phenomenon was the existence of landlessness and traditional untouchable castes, which enhanced their poverty, misery and exploitability" (ibid, emphasis added). The data on landownership by social groups cited in the lecture that the Scheduled Castes (i.e. Dalits) confirms the near landlessness of Dalits and their dependence on agricultural labour as the major source of their income.

Bhriugupati Singh (2014) describes his essay as follows, "... in this essay, I describe a long standing philosophical antagonism between...dialectical and non dialectical genealogies of thought, how this and how this difference may implicitly or explicitly impact our ethnographic ways of perceiving the world... this philosophical antagonism surfaced to me, in thinking about power, ethics,

---

and life itself in the ethnographic setting of rural central India, that may otherwise seem so distant from the concerns of Continental Philosophy (ibid, p 161)". Singh's ethnographic study is of Sahariyas in the Shahabad sub-district in Rajasthan, "governmentally classified as a primitive tribe, known locally as Adivasi, but also one among many local *jatis*" (ibid p 164). The only reference to Srinivas in the essay is Singh's contrasting the Subaltern historian David Hardiman's analysis of the rise of a "vegetarian" Mother Goddess among tribes in Western India and his characterization of it as a form of "Adivasi" self assertion "and resistance" with Sanskritization of Srinivas, which Singh describes as the mimicry of "high" Hinduism by lower status groups. This contrast ignores Srinivas's own reference to Burra's study of Mahars and their defiance upper castes through Sanskritisation. I found the essay and in particular, the accounts of Bansi Baba, Kalli and their nuanced interpretation of their actions in implicit philosophical terms, utterly fascinating and indeed relevant in the current saga of Dalit struggle.

Wakankar (2015) says that "I have tried to write a history of the traditions of Dalit (untouchable) sapience, which is to say the mystic traditions that are associated with the poetry of low-caste poets...what I have attempted...is only minimally different from a history of mainstream forms of Hindu devotionalism such as Bhakti. My point is that low caste forms of mystic speech I describe in these pages are *also* part of the larger story of deities, temples, pilgrimages, religious nationalism. But my concern is to see how there is an ever so slight turn away from mainstream religion in the work of these low-caste poets. This infinitesimal departure from the mainstream is crucial. The rhetorical ambition of the book rests on it. This is what saves the concepts used here (such as "hearsay", "miracle" and "violence") from appearing as mere verbal conceits" (Wakankar 2015, Preface, p vii-viii).

He goes on "This book tries to imagine what it means to intercept a mode of thinking at the cusp. Its subject is the poetry of three medieval saint poets [Dnyanesara (d.1296), Kabir (d.1518) and Tukaram (1608-50)] from northern western India...The key figure in this book. The fifteenth century weaver poet Kabir who was a convert to Islam is known both in the English speaking and Perso-Arabic world as a mystic poet whose poems are often placed alongside those of great Sufi poets like Rumi. In India, Kabir was for long seen as a poet who defied caste and religious distinctions in his impassioned verses; he was taken to be the very embodiment of Indian secularism before and after the time of Nehru." (Wakankar, 2015, p 3)

Wakankar lists Srinivas (1962) in the bibliography and cites pages 42-62 from it for Sanskritization. But his reference to Sanskritization is in Chapter 5 in the context of an answer to the motive for conversion by the low caste groups when they have little to gain by it as caste envy, or the "*sanskritizing* desire of these castes for ritual and social mobility by token of brahmin-envy" (Wakankar 2015, p 77). The footnote on Brahmin envy refers in fact to Dirks (2001, p 252)

Thomas Weisskopf of University of Michigan, my friend and one time co-author, delivered his **Srinivas Memorial** lecture on Globalization and Discrimination. His focus<sup>21</sup>, as in his other publication on India in the Economic and Political Weekly seems to have been on positive and negative discrimination and the impact of globalization on them. However, many dimensions of globalization and their intensification over time constitute major external shocks to a country. Obviously depending on their location, villages will be impacted by the shocks to a greater or lesser extent. Indeed Tamil Brahmins discussed earlier did take advantage and benefited from the globalization shocks. However

---

who criticizes Srinivas for not “having come to terms with the extent his theory of Sanskritization was exemplified by the struggles around the census [its inclusion of caste in pre independence censuses from 1901 to 1941] but was also in large part produced by them. Dirks’ point is salient in the context of as yet unpublished recent Caste Census. Although Wakankar’s book is only distantly related to Srinivas, its introduction and chapters on the medieval poets are very interesting though their links to ideas of nationhood, democracy and equality seem somewhat stretched.

Balmurli Natarajan’s book seems to me to address what he calls the paradox of caste, namely a decline in the observance of the traditional markers of the *caste system* namely, ritual hierarchy and practices of occupational *hereditary*, and mutual *separation* or revulsion, yet casteism continues to be widespread in labor market practices and production relations, educational institutions, housing, banking, and of course marital practices, regularly resulting in violence whenever caste boundaries are transgressed. The traditional markers of the caste system are being replaced by another hierarchy based on achieved status. Natarajan notes that the secularization of caste thesis or paradox of *caste without the caste system* is more in line with Srinivas’s (2003) obituary for the caste system (Natarajan 2016, p 10-12). Natarajan’s book develops what he calls a cultural analysis of caste through an ethnographic analysis of Kumhar in Chhattisgarh. The copiously referenced and footnoted book is rewarding to read.

- 21 In his email to me Weisskopf said that in his lecture “he started by paying tribute to the pioneering interdisciplinary research [of Srinivas], but then on some recent work of my own”. While he agreed that both caste and class continue to play significant roles in India, that of class is growing more rapidly than the role of caste under the influence of westernization of economic life and ironically, westernization of political life has led to greater caste competition in the political arena.”

as in the case of technological shocks, the income distributional welfare impacts of the response to globalization shocks would vary across socio-economic groups and their location in our vast country. Whether employment opportunities abroad as well as outside one's own village, district or state induced by globalization as well as the formation of large Pan-Indian Jati groupings (called "horizontal integration" by Srinivas) 1996, p115 could enable discriminated groups (such as SCs) in a village escape local constraints. (called local cages by Srinivas 1997, p 19) result in upward mobility for Jatis that come together is an open question. Martin (2013, abstract) for example argues that despite assertiveness in pressing their rights by SCs in Punjab "on political leaders and bureaucrats..., they still do not exercise meaningful power in panchayats" and "wealthy class of farmers increasingly involved in urban businesses uses a combination of party connections, cash and coercions to capture and maintain growth at their expense... [so] that when SCs mobilize to demand their rights, they are still careful not to challenge dominant interests". This is somewhat surprising given that Punjab is a state that is substantially globalised.

Whether or not societal response to shocks that are in principle beneficial and result in their adoption with the resulting benefits well distributed across socio-economic groups, depends to a significant extent on the role played by the state. Governance failures including failing to provide the needed services that only the state can provide could be socially costly.

### **VIII. Indian Economy: Current States and Near Term Prospects**

Indian economy's current status on the one hand seems sound, poised as it is for further growth and improvement. On the other hand, the available economic data suggest that this assessment is

fragile. Before turning to them, I should mention an overarching concern, namely, threats to internal and border security. The continuing encounters with Naxalites, unrest in states in the North East that border Bangladesh, China and Myanmar are domestic security threats with cross-border implications. The terrorist attack in Pathankot Air Force Base and the apparent entry of terrorists into the Air Base in spite of advance intelligence information of the possibility of terrorist attack are very worrisome.

The mid-year Economic Analysis 2015-16 (MoF, 2016) by the Department of Economic Affairs, Ministry of Finance is the latest official Review of the Economy. It claims that the “Indian Economy continued to exhibit resilience to register a growth of [GDP at real market prices] 7.2 percent in the first half of 2015-16. That this has been attained, despite the highly tentative global economic environment that has not shown credible signs of improvement and despite sub-par monsoon rains for the second year in succession is an encouraging development. The year thus far has witnessed macro-economic stability aided by favorable factors such as comforting inflation indicators, benign fiscal situation and improving external current account”. It does not mention a favorable factor for India, an oil importing country, namely the continuing fall in prices of crude oil. In any case, the claim that “all these factors, have resulted in India emerging as the fastest growing among the large economies” is very misleading. Given the facts that Brazil, Russia and Japan are in recession, Chinese growth is slowing down, it is not so much India’s superior performance but the relatively poor performance of other large countries that has led India to shift from the ‘fragile five’ not so long ago to being the fastest grower.

There are other data that are disquieting. Exports of goods and services have been declining since the first quarter of 2014-15 (MoF,



2016, Table 3.1). According to D.G.C.I & S data cited in the RBI bulletin for January 2016, exports declined from US \$ 26.5 billion in November 2014 to US \$ 20.0 billion in November 2015, a fall by 25 percent. Based on Balance of Payment Data, RBI bulletin (January 2016) shows a decline of 17 and 24 percent respectively in exports in the first and second quarter of 2015-16.

Index of Industrial Production (IIP) data (MOSPI) show that during November 2015 the latest month for which data are available, IIP declined by 3.2 percent compared to the year before and for April-November 2015 the average growth was 3.9 percent over the previous year. The general index stood at 166.6 in November 2015 as compared to its peak of 189.2 in January of 2015. Clearly the data are by no means comforting.

Disturbingly, the overall index of core infrastructure industries (electricity generation) showed an anemic growth of 2.3 percent (4.1 percent) during April–September 2016 as compared to 5.1 percent (10.4 percent) the year before. In fact, every one of the core infrastructure industries except fertilizers showed a decline in growth during 2015-2016 as compared to the year before [MoF, 2016, Annex Table 4].

The budget for 2016-17 presented on February 29, 2016. MoF (2016) presents an optimistic picture of the fiscal situation. The Finance Minister has indicated his intention to keep the fiscal deficit of the Central Government within his budget limit set a year ago. However, with the defense-security related expenditures likely to go up, it will be a difficult task to keep the deficit under control in fiscal year 2016-17.

In my assessment, the current status of the economy shows serious strains and in the near term a substantial improvement in the situation is unlikely. I am not alone in this assessment. For example,

Kaushik Basu, the former Chief Economic Adviser in the Department of Economic Affairs and currently Vice-President of the World Bank is reported to have said that the World Bank will be revising India's near term growth downwards, in large part because the government has not taken actions that were promised but not yet taken. One of them is the passage of the long overdue GST of Goods and Sales Tax. [The Hindu, December 27, 2015]. Before the Left front was defeated in the last elections, my friend Asim Dasgupta, the Finance Minister of West Bengal was Chairman of the Interstate Committee negotiating GST. He had almost succeeded in forging a consensus for enacting it. Lot of water has flown down Cauvery since then but alas GST is nowhere near being enacted.

On the financial front, the burden of subsidies that have no social welfare considerations behind them and revenue foregone form tax expenditures (exemption altogether or reduction in rates of taxation) on activities with no ostensible social justification are yet to be reviewed. It is my belief that tax reforms recommended by Committees headed by my friend Vijay Kelkar have not been successfully implemented.

Turning to the monetary sector, the Federal reserve of the United States, has recently moved away from the unconventional monetary policy of quantitative easing around a near zero federal funds rate, by raising the federal funds rate by 25 basis point. Since this action was widely expected, there was no "taper tantrum" by financial markets this time as compared to the last time the Federal announced its intention to taper quantitative easing. Moreover under Governor Rajan's astute management, India is well placed to absorb the shocks were any market turmoil to occur.

Attracting foreign capital, particularly Foreign Direct Investment to India, is an objective that the government, with the Prime Minister

in front has been pursuing. I would argue that what is needed is the creation of a distortion-free investment climate such that the risk adjusted social return over cost of capital is fairly uniform across activities. Whether the investor is domestic or foreign is not particularly relevant. In such an investment climate, capital will flow to those worthwhile production activities in India for sale in the global market – no ‘Make in India’ pitch would be needed.

C Rangarajan, former Chairman of the Prime Minister’s Economic Advisory Council and former Governor of Reserve Bank and Andhra Pradesh drew attention to the need to pay attention to the investment climate as well as cautioned that reforms by themselves do not create growth and turn the economy around and they need to reach the needy (Rangarajan 2015, 2016 a,b). Professor Amartya Sen in a wide ranging interview in the Hindu on January 8 said:

“The three big lessons that economics offers have not been fully appreciated. One is the lesson that you need a successful market economy for continued fast growth and development. That is being absorbed but even now I have to say that the Modi government has been too slow with the reforms and has not carried out the reforms they promised they will.

Secondly, while the market economy does well for industries and agriculture, by and large, with a few exceptions, it does not do well for education and healthcare. There you need the government to come in a big way, a point that was made by Adam Smith in 1776. And that has been neglected and not much has happened on that. The UPA government was an under-performer and the Modi government is even more of a disaster.

The third point is the issue of asymmetric information: the fact that quite often the buyers don’t know what the seller is selling. This is a very important part in the understanding of any market economy,

and which is why the idea that you could privatize healthcare at a basic level without first providing public health is something that has not been possible in any country in the world and it will not be possible in India.

India is the only country which is trying to get universally educated and universal healthcare through the private sector. Japan, US, Europe, China, Vietnam, Cuba, Hong Kong, Singapore, whether they are politically right or politically left, they all saw the importance of the state in making education and healthcare widely spread and universal."

Other than drawing attention to the political power that being a dominant land holder gives a land owner in a village, to the best of my knowledge Srinivas did not delve into politics and political science in his scholarly work. I do not propose to do either other than in the political slant in some of the statements of the luminaries I have cited. But I do not mean to belittle the importance of political economy in the analysis of theory and practice economic and social development. This leads me to the concluding section of my talk, namely interdisciplinary research.

In his remarks at the "Nobel Solutions" broadcast by NDTV, Chennai in January 2016, Sen reiterated many of his points and was critical of Free Basics offered by Facebook and argued that if India's were to allow it, the digital divide will widen. Apparently the government agreed with Sen and other critics of Free Basics and with supporters of net neutrality to deny Facebook the freedom to offer them.

## **IX. Some Ideas for Multi- and Inter-disciplinary Research**

I began the lecture by citing Professor Roddam Narasimha on M.N. Srinivas's commitment to the value of Multi- and Inter-disciplinary research, combining scholarship in the natural and social sciences,

and his conviction that religion are not two ends of a spectrum. In honoring Srinivas, I thought for a fleeting moment focusing the lecture on his profound work on religion in the private life of citizens of a democratic and secular society. But I decided against it since doing it would have required my entering into the apparent and disturbing rise of intolerance and its manifestation in violent forms in our society and the politics thereof. Not only would it have stretched my analytical competence but would also require far more time than I had for doing the needed research. I would conclude the lecture by proposing a few topics for interdisciplinary research in India in his honor.

**Convergence Research:** The National Academies of Sciences of the United States of America has instituted the Raymond and Beverly Sackler Prize for the integration of one or more of the following disciplines; mathematics, physics, chemistry, biomedicine, biology, astronomy, earth sciences engineering and computer science—for achievements possible only through such integration. The inaugural prize is presented for convergence research that benefits human health.

Chad Mirkin of Northwestern University, the inaugural recipient has been honoured for “impressively integrating chemistry, materials science, molecular biology and biomedicine in the development of spherical nucleic acids and new types on nanostructures that are widely used in the rapid and automated diagnosis of infectious diseases—including cancers and cardiac diseases—and in the detection of drug resistant bacteria.” (<http://www.nasonline.org/programs/awards/sackler-prize-convergence.html>)

**Health Care:** I do not need to emphasize the importance of interdisciplinary research on Health, Health Care and Delivery issues in India. Economist Angus Deaton, the recipient of the Alfred Nobel

Memorial Prize for 2015 and his coauthors Abhijit Banerjee and Esther Duflo discuss health care delivery issues in India (American Economic Review, 2004). Ravi and Ahluwalia (2015) and papers cited therein discuss priorities for India's Health policy. Clearly research involving a combination of natural, medical and social sciences relating to health care overall and the prospects of universal health care in India is negligible but very much needed.

Needless to say that such research and policy recommendations based on it have to be based on factual data. As early as 1945 the All India Institute of Hygiene and Public Health conducted a Health Survey of Singur Village in West Bengal (Lal and Seal 1949) which was exemplary. It was in effect a Pilot Survey to be replicated in many locations in our diverse country. A decade later scholars at the Indian Statistical Institute, Kolkata did a Pilot Survey on Morbidity in 1955 (Poti et al 1959). National Sample Survey from its 7th Round (1953-54) began collecting morbidity and related issues until the 28th Round (1973-74), including a Special Survey and a Pilot Enquiry on Morbidity for developing methodologies for collecting morbidity data on a regular basis. After a hiatus of a decade or so NSS began collecting morbidity data in its quinquennial Surveys of Social consumption from the 42nd Round (1986-87), followed by surveys in 1995-96, 2004 and 2014. As is to be expected concepts and definition including the definition of illness, specific months of a year that the survey was conducted have varied over time.

One specific issue that has attracted attention is that Kerala, which has high life expectancy, literacy, total fertility rate below replacement level nonetheless reports the nation's highest morbidity rates whereas Bihar with lower life expectancy etc reports low morbidity rates. It is argued that morbidity data are largely self-reported and as such responses would reflect the socioeconomic status of the respondent

and also of the disease environment of the area where the respondent lives. Thus, Amartya Sen (2002) hypothesizes that a Bihari respondent is less likely to report common diseases in Bihar and minor illnesses as compared to his/her Kerala counterpart. Others have attempted to test the Sen Hypothesis empirically with household level data from the 71st round.

The wealth of NSS data from 1953-54 till 2014 on morbidity broken down by gender and residence (rural/urban), and related data on recall and respondent (self or other) bias, hospitalization, medical expenses are yet to be analyzed on a comparative perspective over time. In collaboration with Professor Muraleedharan I have started such an analysis (Srinivasan and Muraleedharan, 2016).

**Law and Economics:** One of the well-established areas of interdisciplinary research and teaching in the United States is Law and Economics. Except in some of the newly established law schools, in India economics is not part of the curriculum of legal training. I have elsewhere (Srinivasan, 2016) argued that our supreme court has been excessively active and the unfortunate economic consequences of some of the decisions would have been avoided had the learned judges had economic training. This is another area that calls for more research.

**Neuronomics:** Another area is Neuronomics, involving Neuroscience and Economics. It began more than two decades ago. Surveys of research on Neuronomics are also available including one by George Lowenstein sometime ago. This is also an attractive area for research in India. Interestingly, Kris Gopalakrishnan, co-founder of Infosys with Narayanamurthy held a workshop at IIT, Madras in the last week of January 2016 on the use of internet in research on the brain. Clearly, this research is a part of Neuronomics.

**Risk Assessment, Spreading and Sharing:** Let me conclude with the need for interdisciplinary research on risk (individual and social) assessment, risk spreading and risk sharing. These issues arise in many contexts: health, construction of roads, residential and commercial buildings, energy, agriculture, weather, and climate change.

## References:

- Bagchi, S. (2015) "World Bank may review India's GDP forecast", <http://www.thehindu.com/business/economy/world-bank-may-review-indias-gdp-forecast/article8032008.ece>. Accessed on June 28, 2016.
- Banerjee, A., Deaton, A. and Duflo, E. (2004) "Wealth, Health and Health services in Rural Rajasthan", *American Economic Review*, Vol. 94, No. 2, 326-330.
- Bell, C., Srinivasan, T.N. and Udry, C. (1997) "Rationing, Spillover, and Interlinking in Credit Markets: The Case of Rural Punjab", *Oxford Economic Papers*, Vol. 49, No. 4. 557-585.
- Burra, N. (1996) "Buddhism, Conversion and Identity: A case study of Mahars", in M.N. Srinivas (Ed.) *Caste: Its Twentieth Century Avatar*, New Delhi: Penguin.
- Deshpande, S. (2013) "Caste and Castelessness" Mumbai, *Economic and Political Weekly*, Vol. XLVIII, No. 15, 32-39.
- Dirks, N. (2001) *Castes of Mind*, Princeton: Princeton University Press.
- Dumont, L. (1971) *Homo Hierarchicus: The Caste system and its Implications*. London: Weidenfeld and Nicolson.
- Epstein, S. (2007) *Back to the village*, Bangalore, National Institute of Advanced Studies.



Fuller, C.J. and H. Narasimhan (2014) *Tamil Brahmins: The Making of a Middle-class Caste*, Chicago: The University of Chicago Press.

Goody, J. (1995) *The Expansive Moment: Anthropology in Britain and Africa 1918-1970*, Cambridge: Cambridge University Press.

Gupta, D. (1991) "Hierarchy and Difference: An Introduction" Dipankar Gupta (Ed.) *Social Stratification*, Delhi: Oxford University Press, 1-21.

Karashima, N. (1984) *South Indian History and Society: Studies from Inscriptions AD 850-1800*, Delhi: Oxford University Press.

Lal, R.B. and S.C. Seal (1949) General Rural Health Survey, Singur Health Center, 1944, Calcutta, All India Institute of Hygiene and Public Health.

Madan, T.N. (2001) "Religion in the Modern World", First M.N.Srinivas Memorial Lecture, Bangalore, National Institute of Advanced Studies.

Martin. N. (2015) "Rural Elites and the Limits of Scheduled Caste Assertiveness in Rural Malwa, Punjab", *Economic & Political Weekly* dated December 26, 2015 Vol I No. 52

MoF (2015) "Mid-Year Economic Analysis: 2015-16", New Delhi, Ministry of Finance, Department of Economic Affairs.

Muraleedharan, V.R. and T.N. Srinivasan (2016) "Trends in Morbidity in India 1944-2014" (in preparation, Department of Humanities and Social Science, Indian Institute of Technology, Madras

Natarajan, B. (2012) *The Culturalization of Caste in India: Identity and Inequality in a Multicultural Age*, New York: Routledge.

NSS (2014) *Key Indicators of Situation Assessment of Agricultural Households*, Report KI (70/33), New Delhi, National Sample Survey Office

NSS (2015) *Household Ownership and Operational Holdings in India*, Report 570, New Delhi: National Sample Survey Office.

NSS (2015) *Some Characteristics of Agricultural Households in India*, Report 569, New Delhi: National Sample Survey Office.

Popper, K. (1959) *The Logic of Scientific Discovery*, London: Hutchinson & Co.

Poti, S.J., M.V. Raman, S. Biswas and Chakraborty (1959) "A Pilot Health Survey in West Bengal: 1955", *Sankhya: The Indian Journal of Statistics*, Vol 21, No 1/2March, 141-204.

Rangarajan, C. (2016a) "New Year Resolutions" *The Economic Times* dated January 01, 2016. <http://epaperbeta.timesofindia.com/Article.aspx?eid=31816&articlexml=New-Year-Resolutions-01012016016029>. Accessed on June 28, 2016.

Rangarajan, C. (2015) "Reforms need to reach the needy" *The Hindu* dated October 29, 2015.

Rangarajan, C. (2016b) "Improve the investment climate" *The Hindu* dated January 12, 2016

Ravi, S. and Ahluwalia, R. (2015) "Priorities for India's National Health Policy". *Brookings India*. [http://www.brookings.in/in\\_focus\\_category/priorities-for-indias-national-health-policy/](http://www.brookings.in/in_focus_category/priorities-for-indias-national-health-policy/) Accessed on June 28, 2016.

Registrar General, (2011) "Rural Urban Distribution of Population", New Delhi, Registrar General and Census Commission of India.

Santhanam, R. (2015) "For Tamil Brahmins, caste and class are one and the same thing" (Interview with anthropologists C. J. Fuller and Haripriya Narasimhan), <http://www.thehindu.com/opinion/for-tamil-brahmins-caste-and-class-are-one-and-the-same-thing/article7904428.ece>. Accessed on June 28, 2016.

Sen, A. (2002) "Health: Perception versus Observation", *British Medical Journal*, 324, 860-861.

Sharad Raghavan, T.C.A. (2016) "NDA has failed on Reforms", (Interview with economist Amartya Sen), <http://www.thehindu.com/news/national/>

*interview-with-amartya-sen/article8077882.ece*. Accessed on June 28, 2016.

Singh, B. (2014) "How concepts make the world look different: Affirmative and Negative Genealogies," Chapter 7 in Veena Das, Michael Jackson, Arthur Kleinman and Bhargupati Singh (Editors), *The Ground Between: Anthropologists Engage Philosophy* Durham and London: Duke University Press, 2014.

Singer, M. (1996) "On the semiotics of ritual: Radcliff-Brown's Legacy" in A.M. Shah, B.S., Baviskar and E.A. Ramaswamy (Editors), *Essays in Honor of M.N. Srinivas*, New Delhi: Sage.

Srinivas, M.N. (1952) *Religion and Society amongst the Coorgs of South India*, Oxford: Clarendon Press.

Srinivas, M.N. (1976) *The Remembered Village*, New Delhi: Oxford University Press, Second Edition.

Srinivas, M. N. (1962) *Caste in India and other essays*, Bombay: Asia Publishing House.

Srinivas, M.N. (1996) *Caste: Its Twentieth Century Avatar*, Viking: New Delhi.

Srinivas, M.N. (1997) "Practicing Social Anthropology in India", *Annual review of Anthropology*, Vol. 26, 1-24.

Srinivas, M.N. (2003) "An Obituary on Caste as a System", *Economic and Political Weekly*, Vol. 38, No. 5, 455-459.

Srinivasan, T.N. (2016) "Evolution of Judicial Activism: The Supreme court of India", Chapter 3 in Mahendra Dev, S. and P.G. Babu (Eds) *Development in India: Micro and Macro Perspectives*, New Delhi: Springer India.

Wakankar, M. (2015), *Subalternity and Religion*, Second Indian Reprint, First Published 2010, New York: Routledge.

**Annexure 1:**

| <b>Statement 3.1: Estimated number of households and landless households in rural areas in the last two LHS Survey of NSS</b>                       |         |         |
|---|---------|---------|
| Estimates   | 2003    | 2013    |
| (1)   | (2)     | (3)     |
| estimated number of households (million)  | 147.838 | 156.043 |
| estimated no. of landless households (million)  | 14.836  | 11.558  |
| percentage of landless households   | 10.00   | 7.41    |
| <i>Land holdings 'less than or equal to 0.002 hectares' is classified under 'landless' category, also includes plots where area is not reported</i> |         |         |
| <i>Source for 2003 data: NSS Report No.491</i>  |         |         |
| <i>Ref: Table 4 of Appendix A</i>   |         |         |

| <b>Statement 3.2: Percentage distribution of households by size category of land holdings for each household social groups</b> |                         |            |            |            |               |
|--|-------------------------|------------|------------|------------|---------------|
| category of holdings (land size class in ha)   | household social groups |            |            |            |               |
|  | ST                      | Sc         | OBC        | Others     | all (incl nr) |
| (1)  | (2)                     | (3)        | (4)        | (5)        | (6)           |
| landless(<=0.002)  | 9.41                    | 7.18       | 6.98       | 7.40       | 7.41          |
| marginal(0.002-1.000)  | 68.83                   | 85.70      | 75.25      | 70.22      | 75.42         |
| small(1.000-2.000)   | 14.64                   | 4.77       | 10.43      | 11.31      | 10.00         |
| semi-medium(2.000-4.000)   | 5.74                    | 1.84       | 5.12       | 7.18       | 5.01          |
| medium(4.000-10.000)   | 1.36                    | 0.48       | 1.99       | 3.34       | 1.93          |
| large(>10.000)   | 0.03                    | 0.03       | 0.23       | 0.55       | 0.24          |
| <b>All Sizes</b>   | <b>100</b>              | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b>    |
| <i>Ref: Table 4 of Appendix A</i>  |                         |            |            |            |               |

| Statement 3.3: Percentage Distribution of household classification across different social groups |   |                  |                               |                             |                                  |        |        |
|---|---|------------------|-------------------------------|-----------------------------|----------------------------------|--------|--------|
| Social Group  | Percentage disrtibution of household by household clasification |                  |                               |                             |                                  |        | total  |
|   | Self-employed   |                  |                               |                             | wages/ salaried employ-<br>ement | Others |        |
|   | cultivation   | livestock faming | other agricultural activities | non-agricultural enterprise |                                  |        |        |
| (1)   | (2)   | (3)              | (4)                           | (5)                         | (6)                              | (7)    | (8)    |
| ST  | 50.95   | 0.75             | 3.70                          | 5.54                        | 32.90                            | 6.17   | 100.00 |
| SC  | 30.88   | 1.50             | 4.79                          | 11.41                       | 43.22                            | 8.19   | 100.00 |
| OBC   | 45.58   | 2.17             | 2.81                          | 13.44                       | 31.23                            | 7.77   | 100.00 |
| Others  | 49.90   | 1.67             | 3.49                          | 11.27                       | 24.84                            | 8.85   | 100.00 |
| All   | 45.92   | 1.75             | 3.47                          | 11.59                       | 32.36                            | 7.91   | 100.00 |
| Ref: Table 4 of Appendix A  |   |                  |                               |                             |                                  |        |        |

# MICRO FOUNDATIONS OF PUBLIC POLICY

| <b>Statement S3.3: Per 1000 distribution of household classification for major states</b> |                    |                   |                               |                             |                            |           |               |
|---|--------------------|-------------------|-------------------------------|-----------------------------|----------------------------|-----------|---------------|
| per 1000 households by household classification   |                    |                   |                               |                             |                            |           |               |
| State/Ut  | self-employment in |                   |                               |                             |                            | Others    | all (incl nr) |
|   | cultivation        | livestock farming | other agricultural activities | non-agricultural enterprise | wages/ salaried employment |           |               |
| (1)   | (2)                | (3)               | (4)                           | (5)                         | (6)                        | (7)       | (8)           |
| Andhra Pradesh  | 403                | 20                | 29                            | 98                          | 333                        | 116       | 1000          |
| Assam   | 428                | 43                | 36                            | 149                         | 297                        | 46        | 1000          |
| Bihar   | 347                | 18                | 54                            | 151                         | 271                        | 160       | 1000          |
| Chhattisgarh  | 661                | 2                 | 51                            | 22                          | 236                        | 30        | 1000          |
| Gujarat   | 484                | 26                | 46                            | 74                          | 347                        | 23        | 1000          |
| Haryana   | 476                | 32                | 1                             | 66                          | 362                        | 63        | 1000          |
| Himachal Pradesh  | 364                | 15                | 17                            | 117                         | 400                        | 88        | 1000          |
| Jammu & Kashmir   | 325                | 26                | 7                             | 235                         | 363                        | 45        | 1000          |
| Jharkhand   | 477                | 15                | 12                            | 108                         | 294                        | 94        | 1000          |
| Karnataka   | 469                | 18                | 45                            | 97                          | 318                        | 53        | 1000          |
| Kerala  | 60                 | 24                | 110                           | 181                         | 474                        | 151       | 1000          |
| Madhya Pradesh  | 555                | 9                 | 23                            | 64                          | 322                        | 27        | 1000          |
| Maharashtra   | 458                | 10                | 32                            | 112                         | 320                        | 68        | 1000          |
| Odisha  | 399                | 11                | 15                            | 150                         | 330                        | 94        | 1000          |
| Panjab  | 274                | 41                | 24                            | 147                         | 410                        | 105       | 1000          |
| Rajasthan   | 502                | 32                | 8                             | 83                          | 329                        | 45        | 1000          |
| Tamil Nadu  | 217                | 30                | 34                            | 154                         | 466                        | 100       | 1000          |
| Telangana   | 483                | 13                | 36                            | 86                          | 322                        | 61        | 1000          |
| Uttar Pradesh   | 585                | 9                 | 8                             | 92                          | 249                        | 57        | 1000          |
| West Bengal   | 302                | 16                | 81                            | 157                         | 373                        | 71        | 1000          |
| N E States  | 484                | 6                 | 21                            | 153                         | 258                        | 78        | 1000          |
| Group of UTs  | 82                 | 8                 | 57                            | 191                         | 595                        | 67        | 1000          |
| <b>All India</b>  | <b>429</b>         | <b>18</b>         | <b>35</b>                     | <b>116</b>                  | <b>324</b>                 | <b>79</b> | <b>1000</b>   |

Ref: Table 5 of Appendix A

| <b>Statement 4.1: State important characteristics of household ownership of land across the last five LHS Surveys of NSS</b> |         |         |         |         |        |
|--|---------|---------|---------|---------|--------|
| items  | 1971-72 | 1982    | 1992    | 2003    | 2013   |
| (1)  | (2)     | (3)     | (4)     | (5)     | (6)    |
| 1. Estimated area owned (mha)  | 119.636 | 119.736 | 117.354 | 107.228 | 92.369 |
| 2. Average are owned per household (ha)  |         |         |         |         |        |
| (a) including landless households  | 1.53    | 1.28    | 1.01    | 0.73    | 0.59   |
| (b) excluding landless households  | 1.69    | 1.44    | 1.14    | 0.81    | 0.64   |
| 3. Percentage of landless households   | 9.60    | 11.30   | 11.30   | 10.00   | 7.41   |

Ref: 1. Data 2012-13-Table 4 of Appedix A

2. Previous years data: NSS Report No. 491

# MICRO FOUNDATIONS OF PUBLIC POLICY

## Statement 4.2: Percentage distribution of households and area owned over size category of ownership holding across the last five LHS Survey of NSS

| category of household ownership holdings | 1971-72                               | 1982  | 1992  | 2003  | 2013  |
|--|---------------------------------------|-------|-------|-------|-------|
| (1)                                      | (2)                                   | (3)   | (4)   | (5)   | (6)   |
|  | Percentage distribution of households |       |       |       |       |
| landless(<=0.002)                        | 9.64                                  | 11.33 | 11.25 | 10.04 | 7.41  |
| marginal(0.002-1.000)                    | 52.98                                 | 55.31 | 60.63 | 69.63 | 75.41 |
| small(1.000-2.000)                       | 15.49                                 | 14.70 | 13.42 | 10.81 | 10.00 |
| semi-medium(2.000-4.000)                 | 11.89                                 | 10.78 | 9.28  | 6.03  | 5.01  |
| medium(4.000-10.000)                     | 7.88                                  | 6.45  | 4.54  | 2.96  | 1.93  |
| large(>10.000)                           | 2.12                                  | 1.43  | 0.88  | 0.53  | 0.24  |
|  | Percentage distribution of area owned |       |       |       |       |
| landless(<=0.002)                        | 0                                     | 0     | 0     | 0.01  | 0.01  |
| marginal(0.002-1.000)                    | 9.76                                  | 12.22 | 16.93 | 23.01 | 29.75 |
| small(1.000-2.000)                       | 14.68                                 | 16.49 | 18.59 | 20.38 | 23.53 |
| semi-medium(2.000-4.000)                 | 21.92                                 | 23.38 | 24.58 | 21.97 | 22.07 |
| medium(4.000-10.000)                     | 30.73                                 | 29.90 | 26.07 | 23.08 | 18.83 |
| large(>10.000)                           | 22.91                                 | 18.01 | 13.83 | 11.55 | 5.81  |

Ref: 1. Data for 2012-13-Table 4 of Appedix A

2. Previous years data: NSS Report No. 491

\*Till 2002-03, the 'marginal' category of holding included 'landless' category also. In the above table, for better comparability, the estimates of the round for 'landless' is shown separately and excluded from 'marginal'

## Statement 4.4: Distribution of land owned per household by social group

| Indicators                                  | ST     | SC    | OBC    | Other  | all*   |
|---|--------|-------|--------|--------|--------|
| (1)   | (2)    | (3)   | (4)    | (5)    | (6)    |
| 1. percentage of households                 | 11.89  | 20.06 | 44.82  | 23.23  | 100.00 |
| 2. estimated total area of land owned (mha) | 12.062 | 8.528 | 42.190 | 29.588 | 92.369 |
| 3. percentage area of land owned            | 13.06  | 9.23  | 45.68  | 32.03  | 100.00 |
| 4. Average area (ha) owned per household    | 0.650  | 0.272 | 0.603  | 0.816  | 0.592  |

\*includes cases of social group not recorded

Ref: Table 4 of Appendix A

## Statement 4.6: Incidence of tenancy in rural India

| Sl no | characteristic                             | aggregate estimate |               | percentage of total households/area owned |               |
|-------|--|--------------------|---------------|---|---------------|
|       |  | Jul'12-Dec'12      | Jan'13-Jun'13 | Jul'12-Dec'12                             | Jan'13-Jun'13 |
| (1)   | (2)  | (3)                | (4)           | (5)                                       | (6)           |
| 1.    | households reporting leasing out (million) | 4.82               | 5.09          | 3.09                                      | 3.26          |
| 2.    | households reporting leasing in (million)  | 20.47              | 21.29         | 13.11                                     | 13.65         |
| 3.    | area reported as leased out (mha)          | 3.89               | 3.92          | 4.28                                      | 4.28          |
| 4.    | area reported as leased in (mha)           | 9.89               | 10.66         | 10.88                                     | 11.62         |

Ref: Table 4, 7, 8 of Appendix A

# MICRO FOUNDATIONS OF PUBLIC POLICY

## Statement 4.7: Estimates of reported incidence of leasing out and leasing in of land by households across the last five LHS Surveys of NSS

| Sl no | characteristic                                    | 1971-72 | 1982 | 1992 | 2003 | 2013* |
|-------|---|---------|------|------|------|-------|
| (1)   | (2)   | (3)     | (4)  | (5)  | (6)  | (7)   |
| 1.    | Percentage of households leasing in land          | 25      | 18   | 15   | 12   | 14    |
| 2.    | Percentage of area leased-in to total area owned  | 12      | 7    | 9    | 7    | 12    |
| 3.    | Percentage of area leased-out to total area owned | 6       | 4    | 5    | 3    | 4     |

\*For 2013, the estimates of Jan'13-Jun,13 have been used.

Ref: 1. Data 2012-13-Table 4, 7, 8 of Appendix A

2. Previous years data: NSS Report No. 491

## Statement 5.1: Estimated number of operational holding, area and area operated

| Sl no. | item                                      | Jul' 12-Dec'12 | Jan'13-Jun'13 | whole agricultural year |
|--------|---|----------------|---------------|-------------------------|
| (1)    | (2)                                       | (3)            | (4)           | (5)                     |
| 1.     | no. of operational holdings (million)     | 105.922        | 99.887        | 108.784                 |
| 2.     | total area of operational holding (mha)   | 96.288         | 88.404        | 98.614                  |
| 3.     | total area operated (mha)                 | 91.450         | 74.366        | 94.480                  |
| 4.     | average area per operational holding (ha) | 0.909          | 0.885         | 0.907                   |
| 5.     | average area operated per holding (ha)    | 0.863          | 0.745         | 0.869                   |

Ref: Table 13 of Appendix A

## Statement 5.2: Estimates of certain key characteristics of operational holdings across the last five LHS Surveys of NSS

| Sl no | items  | 1971-72 | 1981-82 | 1991-92 | 2002-03 | 2012-13 |
|-------|--|---------|---------|---------|---------|---------|
| (1)   | (2)  | (3)     | (4)     | (5)     | (6)     | (7)     |
| 1     | Number of operational holdings (million)               | 57.07   | 71.04   | 93.45   | 101.27  | 108.78  |
| 1.1   | percentage increase in operational holdings            | --      | 24.5    | 31.5    | 8.4     | 7.4     |
| 2     | Total area operated (mha)                              | 125.68  | 118.57  | 125.10  | 107.65  | 94.48   |
| 3     | Average area operated (ha) per holding                 | 2.20    | 1.67    | 1.34    | 1.06    | 0.87    |
| 4     | Percentage of joint holding                            | 0.60    | 0.62    | 0.08    | 0.40    | 2.60    |
| 5     | Number of parcels per holding                          | n.a.    | 4       | 2.7     | 2.3     | 2       |
| 6     | Percentage of operational holding with party or wholly | 95.64   | 92.91   | 96.15   | 95.33   | 97.29   |
|       | a owned land   | 24.68   | 15.20   | 10.99   | 9.90    | 13.69   |
|       | b leased-in land                                       |         |         |         |         |         |
| 7     | In totally area operated                               | 89.43   | 91.08   | 90.44   | 92.70   | 87.75   |
|       | a area owned   |         |         |         |         |         |
|       | percentage share                                       | 10.57   | 7.18    | 8.52    | 6.50    | 11.30   |
|       | b area leased in                                       |         |         |         |         |         |
|       | c area otherwise possessed                             | --      | 1.74    | 1.04    | 0.80    | 0.95    |

\*For 2012-13 area of operational in considered and the values correspond to jan'13-Jun'13

Ref: 1. Data 2012-13-Table 13, 16 & 31 of Appendix A

2. Previous years data: NSS Report No. 492

## MICRO FOUNDATIONS OF PUBLIC POLICY

| <b>Statement 5.3: Percentage distribution of the number of household operational holdings by category og holdings across the last five LHS Survey of NSS</b> |                                    |         |         |           |       |         |
|--|------------------------------------|---------|---------|-----------|-------|---------|
| Category of holdings (land size in ha)   | percentage of operational holdings |         |         |           |       |         |
|  | 1970-71                            | 1981-82 | 1991-92 | 2002-2003 |       | 2012-13 |
|  |                                    |         |         | kharif    | rabi  |         |
| (1)  | (2)                                | (3)     | (4)     | (5)       | (6)   | (7)     |
| landless(<=0.002)  |                                    |         |         |           |       | 0.03    |
| marginal(0.002-1.000)  | 45.80                              | 56.00   | 62.80   | 69.80     | 70.00 | 73.17   |
| small(1.000-2.000)   | 22.40                              | 19.30   | 17.80   | 16.20     | 15.90 | 15.30   |
| semi-medium(2.000-4.000)   | 17.70                              | 14.20   | 12.00   | 9.00      | 8.90  | 8.10    |
| medium(4.000-10.000)   | 11.10                              | 8.60    | 6.10    | 4.20      | 4.40  | 3.04    |
| large(>10.000)   | 3.10                               | 1.90    | 1.30    | 0.80      | 0.80  | 0.37    |
| all sizes  | 100                                | 100     | 100     | 100       | 100   | 100     |

Ref: 1. Data 2012-13-Table 13 of Appedix A  
2. Previous years data: NSS Report No. 492

| <b>Statement 1: Estimated number of agricultural households, its percentage share in rural households in the major States during the agricultural year July 2012-June 2013</b> |  |   |   |
|--|--|---|---|
| State  | estimated no of agricultural households (00) | estimated no of rural households (00)** | agricultural households as percentage of rural households (%) |
| (1)  | (2)  | (3)                                     | (4)   |
| Andhra Pradesh   | 35968  | 86763                                   | 41.5  |
| Assam  | 34230  | 52494                                   | 65.2  |
| Bihar  | 70943  | 140611                                  | 50.5  |
| Chhattisgarh   | 39305  | 58719                                   | 66.9  |
| Gujarat  | 15693  | 25849                                   | 60.7  |
| Haryana  | 15693  | 25849                                   | 60.7  |
| Jharkhand  | 22336  | 37516                                   | 66.9  |
| Karnataka  | 42421  | 77430                                   | 54.8  |
| Kerala   | 14043  | 51377                                   | 27.3  |
| Madhya Pradesh   | 59950  | 84666                                   | 70.8  |
| Maharastra   | 70970  | 125182                                  | 56.7  |
| Odisha   | 44935  | 78120                                   | 56.7  |
| Panjab   | 14083  | 27552                                   | 51.1  |
| Rajasthan  | 64835  | 82722                                   | 78.4  |
| Tamil Nadu   | 32443  | 93607                                   | 34.7  |
| Telangana  | 25389  | 49309                                   | 51.5  |
| Uttar Pradesh  | 180486                                       | 241328                                  | 74.8  |
| West Bengal  | 63624  | 141359                                  | 45.0  |
| <b>All India</b>   | <b>902011</b>                                | <b>1561442</b>                          | <b>57.8</b>   |

\*all India figures include all States and s which are not shown in the Statement

\*\*The estimate of rural households as per the results of the Land and Livestock Holding Suurvey of NSS 70th round



# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 2: Per 1000 distribution of agricultural households by social group for each decile class of MPCE**

| MPCE<br>decile class | per 1000 distribution of agricultural households by social<br>group |            |            |            |             | est. no. of agri.<br>households<br>(00) |
|----------------------|---|------------|------------|------------|-------------|---|
|                      | ST  | SC         | OBC        | others     | all         |   |
| (1)                  | (2)   | (3)        | (4)        | (5)        | (6)         | (7)                                     |
| 1                    | 306   | 206        | 375        | 113        | 1000        | 69253                                   |
| 2                    | 205   | 184        | 444        | 168        | 1000        | 71907                                   |
| 3                    | 173   | 199        | 465        | 163        | 1000        | 77923                                   |
| 4                    | 126   | 184        | 484        | 205        | 1000        | 81850                                   |
| 5                    | 144   | 147        | 474        | 235        | 1000        | 85797                                   |
| 6                    | 106   | 184        | 474        | 235        | 1000        | 91467                                   |
| 7                    | 123   | 164        | 480        | 232        | 1000        | 94987                                   |
| 8                    | 108   | 157        | 475        | 260        | 1000        | 100969                                  |
| 9                    | 83  | 140        | 479        | 298        | 1000        | 108888                                  |
| 10                   | 65  | 105        | 355        | 442        | 1000        | 118972                                  |
| <b>all classes</b>   | <b>134</b>  | <b>163</b> | <b>454</b> | <b>249</b> | <b>1000</b> | <b>902011</b>                           |

**Statement 4: Per 1000 distribution of agricultural households by principal source of income during last 365 days for each size class of land possessed**

| size class<br>of land<br>possesses<br>(ha) | per 1000 distribution of households by principal source of<br>income |                      |   |  |                                       |           |             | est. no.<br>of agri.<br>households<br>(00) |
|--|--|----------------------|---|--|---------------------------------------|-----------|-------------|--|
|  | cultiva-<br>tion   | livestock<br>farming | other<br>agricul-<br>tural<br>activi-<br>ties | non-ag-<br>ricultural<br>enter-<br>prise | wages/<br>salaried<br>emplo-<br>yment | Others*   | total       |  |
| (1)  | (2)  | (3)                  | (4)   | (5)                                      | (6)                                   | (7)       | (8)         | (9)  |
| <0.01                                      | 16   | 229                  | 27  | 108                                      | 564                                   | 55        | 1000        | 23890                                      |
| 0.01-0.40                                  | 421  | 48                   | 12  | 75                                       | 352                                   | 93        | 1000        | 287663                                     |
| 0.41-1.00                                  | 692  | 23                   | 9   | 36                                       | 200                                   | 41        | 1000        | 314811                                     |
| 1.01-2.00                                  | 830  | 25                   | 9   | 32                                       | 86                                    | 18        | 1000        | 154577                                     |
| 2.01-4.00                                  | 859  | 24                   | 11  | 16                                       | 71                                    | 18        | 1000        | 84345                                      |
| 4.01-10.00                                 | 879  | 27                   | 5   | 9  | 59                                    | 20        | 1000        | 33019                                      |
| 10.00-                                     | 894  | 55                   | 15  | 18                                       | 17                                    | 1         | 1000        | 3706                                       |
| <b>all sizes</b>                           | <b>635</b>   | <b>37</b>            | <b>11</b>                                     | <b>47</b>                                | <b>220</b>                            | <b>51</b> | <b>1000</b> | <b>902011</b>                              |

\*others includes pension and remittance also

# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 5: Per 1000 distribution of agricultural households by principal source of income during last 365 days for each size class of MPCE**

| decile class of MPCE | per 1000 distribution of households by principal source of income |                   |                               |                             |                           |           |             | est. no. of agri. households (00) |
|----------------------|---|-------------------|-------------------------------|-----------------------------|---------------------------|-----------|-------------|-----------------------------------|
|                      | cultivation   | livestock farming | other agricultural activities | non-agricultural enterprise | wages/salaried employment | Others*   | total       |                                   |
| (1)                  | (2)   | (3)               | (4)                           | (5)                         | (6)                       | (7)       | (8)         | (9)                               |
| 1                    | 632   | 21                | 7                             | 28                          | 276                       | 36        | 1000        | 69253                             |
| 2                    | 638   | 35                | 11                            | 33                          | 244                       | 38        | 1000        | 71907                             |
| 3                    | 662   | 31                | 6                             | 53                          | 217                       | 31        | 1000        | 77923                             |
| 4                    | 636   | 36                | 6                             | 50                          | 222                       | 51        | 1000        | 81850                             |
| 5                    | 631   | 29                | 9                             | 37                          | 249                       | 44        | 1000        | 85797                             |
| 6                    | 641   | 47                | 7                             | 35                          | 227                       | 42        | 1000        | 91467                             |
| 7                    | 656   | 31                | 6                             | 58                          | 185                       | 65        | 1000        | 94987                             |
| 8                    | 639   | 38                | 9                             | 53                          | 217                       | 44        | 1000        | 100969                            |
| 9                    | 650   | 42                | 15                            | 45                          | 195                       | 52        | 1000        | 108888                            |
| 10                   | 578   | 49                | 24                            | 60                          | 204                       | 85        | 1000        | 118972                            |
| <b>all classes</b>   | <b>635</b>  | <b>37</b>         | <b>11</b>                     | <b>47</b>                   | <b>220</b>                | <b>51</b> | <b>1000</b> | <b>902011</b>                     |

\*others includes income from pension and remittance also

**Statement 11: Per 1000 distribution of agricultural households by type of ration card for major States**

| States           | Antyodaya | BPL        | others     | no ration card | all         | est. no. of agri. households (00) |
|------------------|-----------|------------|------------|----------------|-------------|-----------------------------------|
| (1)              | (2)       | (3)        | (4)        | (5)            | (6)         | (7)                               |
| Andhra Pradesh   | 37        | 918        | 22         | 23             | 1000        | 35968                             |
| Assam            | 40        | 369        | 403        | 188            | 1000        | 34230                             |
| Bihar            | 42        | 450        | 369        | 139            | 1000        | 70943                             |
| Chhattisgarh     | 41        | 570        | 299        | 90             | 1000        | 25608                             |
| Gujarat          | 26        | 340        | 616        | 18             | 1000        | 39305                             |
| Haryana          | 26        | 87         | 862        | 24             | 1000        | 15693                             |
| Jharkhand        | 58        | 350        | 224        | 369            | 1000        | 22336                             |
| Karnataka        | 58        | 651        | 196        | 95             | 1000        | 42421                             |
| Kerala           | 12        | 229        | 743        | 15             | 1000        | 14043                             |
| Madhya Pradesh   | 53        | 365        | 406        | 176            | 1000        | 59950                             |
| Maharashtra      | 57        | 303        | 538        | 101            | 1000        | 70970                             |
| Odisha           | 36        | 488        | 238        | 238            | 1000        | 44935                             |
| Punjab           | 38        | 175        | 739        | 49             | 1000        | 14083                             |
| Rajasthan        | 37        | 243        | 659        | 60             | 1000        | 64835                             |
| Tamil Nadu       | 41        | 321        | 630        | 8              | 1000        | 32443                             |
| Telangana        | 15        | 927        | 28         | 30             | 1000        | 25389                             |
| Uttar Pradesh    | 81        | 178        | 527        | 215            | 1000        | 180486                            |
| West Bengal      | 31        | 317        | 633        | 19             |             | 63624                             |
| <b>All India</b> | <b>49</b> | <b>364</b> | <b>464</b> | <b>123</b>     | <b>1000</b> | <b>902011</b>                     |

\*based on all States and UTs, including States and Uts not shown in the Statement

# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 12: Average monthly income (Rs.) from different sources, consumption expenditure and net investment in productive assets (Rs.) per agricultural households during July 2012 June 2013 for each size of land possessed**

| size class of land possessed (ha) | income from wages/salary (Rs.) | net receipt from cultivation (Rs.) | net receipt from farming of animals (Rs.) | net receipt from non-farm business (Rs.) | total income (Rs.) | total consumption expenditure (Rs.) | net investment in productive asset (Rs.) | est. no. of agri. households (00) |
|-----------------------------------|--------------------------------|------------------------------------|---|--|--------------------|-------------------------------------|--|-----------------------------------|
| (1)                               | (2)                            | (3)                                | (4)                                       | (5)                                      | (6)                | (7)                                 | (8)                                      | (9)                               |
| <0.01                             | 2902                           | 30                                 | 1181                                      | 447                                      | 4561               | 5108                                | 55                                       | 23857                             |
| 0.01-0.40                         | 2386                           | 687                                | 621                                       | 459                                      | 4152               | 5401                                | 251                                      | 287381                            |
| 0.41-1.00                         | 2011                           | 2145                               | 629                                       | 462                                      | 5247               | 6020                                | 540                                      | 315008                            |
| 1.01-2.00                         | 1728                           | 4209                               | 818                                       | 593                                      | 7348               | 6457                                | 422                                      | 154810                            |
| 2.01-4.00                         | 1657                           | 7359                               | 1161                                      | 554                                      | 10730              | 7786                                | 746                                      | 83964                             |
| 4.01-10.00                        | 2031                           | 15243                              | 1501                                      | 861                                      | 19637              | 10104                               | 1975                                     | 33519                             |
| 10.00+                            | 1311                           | 35685                              | 2622                                      | 1770                                     | 41388              | 14447                               | 6987                                     | 3499                              |
| <b>all sizes</b>                  | <b>2071</b>                    | <b>3081</b>                        | <b>763</b>                                | <b>512</b>                               | <b>6426</b>        | <b>6223</b>                         | <b>543</b>                               | <b>902039</b>                     |

\*estimated number of households based on the common households of visit 1 and visit 2 differ from the estimate based only on visit 1 households due to effect of multiplier

**Statement 13: Average monthly income (Rs.) from different sources, consumption expenditure and net investment in productive assets (Rs) per agricultural household during July 2012- June 2013 for each decile class of MPCE**

| decile class of MPCE | income from wages | net receipt from cultivation | net receipt from farming of animals | net receipt from non-farm business | total income | total consumption expenditure | net investment in productive asset (Rs.) | est. no. of agri. households (00) |
|----------------------|-------------------|------------------------------|-------------------------------------|------------------------------------|--------------|-------------------------------|--|-----------------------------------|
| (1)                  | (2)               | (3)                          | (4)                                 | (5)                                | (6)          | (7)                           | (8)                                      | (9)                               |
| 1                    | 1729              | 1533                         | 478                                 | 130                                | 3870         | 3537                          | 243                                      | 65652                             |
| 2                    | 1624              | 1858                         | 642                                 | 139                                | 4263         | 4337                          | 131                                      | 71640                             |
| 3                    | 1716              | 2046                         | 578                                 | 357                                | 4697         | 4708                          | 306                                      | 77307                             |
| 4                    | 1685              | 2059                         | 732                                 | 263                                | 4739         | 4933                          | 420                                      | 82771                             |
| 5                    | 2036              | 2445                         | 651                                 | 339                                | 5471         | 5358                          | 242                                      | 85534                             |
| 6                    | 2049              | 2653                         | 821                                 | 308                                | 5830         | 5515                          | 390                                      | 92140                             |
| 7                    | 1679              | 2944                         | 596                                 | 484                                | 5703         | 5896                          | 699                                      | 96285                             |
| 8                    | 1822              | 3106                         | 671                                 | 524                                | 6122         | 6385                          | 523                                      | 101973                            |
| 9                    | 2424              | 3737                         | 723                                 | 546                                | 7430         | 7169                          | 627                                      | 108704                            |
| 10                   | 3265              | 6306                         | 1414                                | 1473                               | 12458        | 11107                         | 1339                                     | 120033                            |
| <b>all sizes</b>     | <b>2071</b>       | <b>3081</b>                  | <b>763</b>                          | <b>512</b>                         | <b>6426</b>  | <b>6223</b>                   | <b>513</b>                               | <b>902039</b>                     |

\*estimated number of households based on the common households of visit 1 and visit 2 differ from the estimate based only on visit 1 households due to effect of multiplier

# MICRO FOUNDATIONS OF PUBLIC POLICY

| <b>Statement 15: Per 1000 distribution of outstanding loans by source of loan taken for different size of land possessed</b> |  |                             |            |                                  |  |                            |                            |           |             |
|--|--|-----------------------------|------------|----------------------------------|--|----------------------------|----------------------------|-----------|-------------|
| size class of land possessed (ha)  | per 1000 distribution of outstanding loans by source of loan |                             |            |                                  |  |                            |                            |           |             |
|  | government   | corper-<br>ative<br>society | bank       | em-<br>ployer /<br>land-<br>lord | agricul-<br>tural /<br>profes-<br>sional<br>money<br>lender` | shop-<br>keeper/<br>trader | rela-<br>tives &<br>friend | others    | all         |
| (1)  | (2)  | (3)                         | (4)        | (5)                              | (6)  | (7)                        | (8)                        | (9)       | (10)        |
| <0.01  | 4  | 16                          | 129        | 6                                | 637  | 14                         | 175                        | 18        | 1000        |
| 0.01-0.40  | 13   | 146                         | 10         | 8                                | 324  | 25                         | 142                        | 31        | 1000        |
| 0.41-1.00  | 17   | 139                         | 376        | 8                                | 274  | 66                         | 106                        | 14        | 1000        |
| 1.01-2.00  | 26   | 147                         | 475        | 7                                | 233  | 15                         | 76                         | 20        | 1000        |
| 2.01-4.00  | 19   | 156                         | 500        | 14                               | 238  | 12                         | 58                         | 3         | 1000        |
| 4.01-10.00   | 38   | 175                         | 502        | 4                                | 187  | 14                         | 65                         | 15        | 1000        |
| 10.00+   | 11   | 143                         | 635        | 0                                | 161  | 5                          | 38                         | 6         | 1000        |
| <b>all sizes</b>   | <b>21</b>  | <b>148</b>                  | <b>429</b> | <b>8</b>                         | <b>258</b>   | <b>29</b>                  | <b>91</b>                  | <b>16</b> | <b>1000</b> |

| <b>Statement 17A: Number per 1000 of agricultural households reporting sale for selected crops during July, 2012- December, 2012</b> |  |       |                  |                                    |                 |       |     |   |
|--|--|-------|------------------|------------------------------------|-----------------|-------|-----|---|
| Crop   | no. per 1000 households reporting sale by agency |       |                  |                                    |                 |       |     | est. no. of<br>house-<br>holds<br>reporting<br>sale of<br>crop (00) |
|  | local<br>private<br>trader                       | mandi | input<br>dealers | coopera-<br>tive & govt.<br>agency | proces-<br>sors | other | all |   |
| (1)  | (2)  | (3)   | (4)              | (5)                                | (6)             | (7)   | (8) | (9)   |
| paddy  | 234  | 80    | 37               | 39                                 | 7               | 28    | 411 | 186734  |
| jowar  | 200  | 70    | 7                | 3                                  | 0               | 21    | 298 | 15092   |
| bajra  | 117  | 114   | 9                | 1                                  | 0               | 7     | 243 | 17487   |
| maize  | 222  | 105   | 23               | 2                                  | 1               | 8     | 354 | 34563   |
| ragi   | 148  | 26    | 4                | 0                                  | 0               | 16    | 190 | 3549  |
| arhar(tur)   | 190  | 215   | 38               | 1                                  | 0               | 6     | 449 | 15507   |
| urad   | 343  | 128   | 29               | 4                                  | 0               | 12    | 503 | 18783   |
| moong  | 209  | 191   | 16               | 2                                  | 0               | 10    | 427 | 8227  |
| sugarcane  | 192  | 59    | 14               | 376                                | 209             | 45    | 880 | 36000   |
| potato   | 346  | 122   | 60               | 4                                  | 1               | 22    | 510 | 8625  |
| groundnut  | 371  | 182   | 59               | 25                                 | 0               | 28    | 654 | 15509   |
| coconut  | 379  | 50    | 6                | 14                                 | 0               | 37    | 457 | 9571  |
| soyabean   | 416  | 413   | 45               | 12                                 | 1               | 5     | 884 | 45017   |
| cotton   | 482  | 222   | 120              | 54                                 | 18              | 11    | 885 | 57158   |
| jute   | 684  | 198   | 46               | 0                                  | 10              | 1     | 919 | 9038  |

# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 17B: Number per 1000 of agricultural households reporting sale for selected crops during January 2013 - June 2013**

| Crop             | no. per 1000 households reporting sale by agency |       |               |                             |             |       |     | est. no. of households reporting sale of crop (00) |
|------------------|--|-------|---------------|-----------------------------|-------------|-------|-----|--|
|                  | local private trader                             | mandi | input dealers | coop-erative & govt. agency | proces-sors | other | all |  |
| (1)              | (2)  | (3)   | (4)           | (5)                         | (6)         | (7)   | (8) | (9)  |
| paddy            | 460  | 95    | 47            | 28                          | 6           | 12    | 638 | 54578  |
| jowar            | 155  | 105   | 12            | 0                           | 1           | 7     | 278 | 4565   |
| maize            | 514  | 136   | 61            | 19                          | 0           | 5     | 719 | 19581  |
| wheat            | 181  | 128   | 34            | 25                          | 1           | 4     | 368 | 129991   |
| barley           | 78   | 50    | 12            | 0                           | 0           | 0     | 140 | 1432   |
| gram             | 223  | 249   | 58            | 2                           | 0           | 3     | 532 | 33190  |
| arhar(tur)       | 156  | 122   | 36            | 0                           | 0           | 2     | 317 | 3517   |
| moong            | 391  | 38    | 4             | 6                           | 0           | 3     | 442 | 68   |
| masur            | 219  | 84    | 91            | 0                           | 0           | 0     | 393 | 93   |
| sugarcane        | 215  | 49    | 10            | 417                         | 255         | 7     | 943 | 7352   |
| potato           | 383  | 126   | 32            | 1                           | 1           | 2     | 534 | 20558  |
| onion            | 362  | 142   | 33            | 7                           | 0           | 5     | 543 | 24679  |
| groundnut        | 457  | 166   | 37            | 13                          | 1           | 20    | 689 | 5955   |
| rapeseed/mustard | 211  | 209   | 38            | 2                           | 1           | 1     | 456 | 36155  |
| coconut          | 412  | 51    | 4             | 15                          | 0           | 18    | 491 | 11084  |
| cotton           | 415  | 229   | 234           | 11                          | 35          | 1     | 923 | 10753  |

**Statement 18A: Percentage distribution of quantity sold by agency for selected crops during July, 2012 - December, 2012**

| Crop       | percentage distribution of quantity sold by agency |       |               |                             |             |       |     | estimated quantity sold (000 tonne) |
|------------|--|-------|---------------|-----------------------------|-------------|-------|-----|-------------------------------------|
|            | local private trader                               | mandi | input dealers | coopera-tive & govt. agency | proces-sors | other | all |                                     |
| (1)        | (2)  | (3)   | (4)           | (5)                         | (6)         | (7)   | (8) | (9)                                 |
| paddy      | 41   | 29    | 8             | 17                          | 2           | 3     | 100 | 47385                               |
| jowar      | 76   | 16    | 3             | 1                           | 0           | 4     | 100 | 1763                                |
| bajra      | 43   | 49    | 6             | 1                           | 0           | 2     | 100 | 1337                                |
| maize      | 46   | 39    | 12            | 2                           | 0           | 1     | 100 | 4983                                |
| ragi       | 67   | 23    | 2             | 0                           | 0           | 8     | 100 | 148                                 |
| arhar(tur) | 31   | 61    | 7             | 1                           | 0           | 0     | 100 | 731                                 |
| urad       | 63   | 32    | 5             | 1                           | 0           | 0     | 100 | 481                                 |
| moong      | 47   | 51    | 2             | 0                           | 0           | 0     | 100 | 185                                 |
| sugarcane  | 18   | 4     | 1             | 50                          | 24          | 3     | 100 | 124722                              |
| potato     | 39   | 56    | 4             | 0                           | 0           | 1     | 100 | 1449                                |
| groundnut  | 44   | 30    | 22            | 3                           | 0           | 1     | 100 | 1225                                |
| coconut    | 84   | 10    | 2             | 2                           | 0           | 3     | 100 | 1905                                |
| soyabean   | 36   | 59    | 4             | 1                           | 0           | 0     | 100 | 5851                                |
| cotton     | 48   | 26    | 15            | 8                           | 2           | 0     | 100 | 8601                                |
| jute       | 77   | 19    | 4             | 0                           | 0           | 0     | 100 | 537                                 |

MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 18B: Percentage distribution of quantity sold by agency for selected crops during January 2013 - June 2013**

| Crop             | no. per 1000 households reporting sale by agency |       |               |                             |             |       |     | estimated quantity sold (000 tonne) |
|------------------|--|-------|---------------|-----------------------------|-------------|-------|-----|-------------------------------------|
|                  | local private trader                             | mandi | input dealers | coop-erative & govt. agency | proces-sors | other | all |                                     |
| (1)              | (2)  | (3)   | (4)           | (5)                         | (6)         | (7)   | (8) | (9)                                 |
| paddy            | 64   | 17    | 11            | 6                           | 1           | 1     | 100 | 15489                               |
| jowar            | 51   | 43    | 3             | 0                           | 0           | 3     | 100 | 323                                 |
| maize            | 63   | 16    | 5             | 15                          | 0           | 0     | 100 | 5192                                |
| wheat            | 29   | 44    | 7             | 19                          | 0           | 0     | 100 | 29793                               |
| barley           | 35   | 62    | 2             | 0                           | 0           | 0     | 100 | 197                                 |
| gram             | 30   | 64    | 5             | 1                           | 0           | 0     | 100 | 2522                                |
| arhar(tur)       | 44   | 49    | 6             | 1                           | 0           | 0     | 100 | 164                                 |
| moong            | 79   | 18    | 0             | 3                           | 0           | 0     | 100 | 142                                 |
| masur            | 50   | 38    | 12            | 0                           | 0           | 0     | 100 | 209                                 |
| sugarcane        | 16   | 2     | 2             | 57                          | 23          | 0     | 100 | 68767                               |
| potato           | 73   | 21    | 4             | 0                           | 0           | 1     | 100 | 8921                                |
| onion            | 57   | 37    | 3             | 3                           | 0           | 0     | 100 | 1976                                |
| groundnut        | 53   | 34    | 8             | 2                           | 1           | 3     | 100 | 400                                 |
| rapeseed/mustard | 32   | 63    | 4             | 1                           | 0           | 0     | 100 | 2511                                |
| coconut          | 78   | 18    | 2             | 1                           | 0           | 1     | 100 | 2215                                |
| cotton           | 51   | 16    | 30            | 1                           | 2           | 0     | 100 | 1026                                |

**Statement 19A: Number per 1000 of agricultural households having awareness about MSP for selected crops during July, 2012 - December, 2012**

| Crop       | number per 1000 households reporting sale of crops |                              |                             | of the households sold to procurement agency |                                     | estd. no. of households reporting sale of crop (00) |
|------------|--|------------------------------|-----------------------------|--|-------------------------------------|---|
|            | aware of MSP                                       | aware of procure-ment agency | sold to procure-ment agency | % of sale at MSP to total sale               | avg. sale rate received at MSP (Rs) |   |
| (1)        | (2)  | (3)                          | (4)                         | (5)  | (6)                                 | (7)   |
| paddy      | 322  | 251                          | 135                         | 27   | 13.08                               | 186734  |
| jowar      | 83   | 63                           | 17                          | 1  | 13.5                                | 15106   |
| bajra      | 160  | 102                          | 30                          | 2  | 10.83                               | 17487   |
| maize      | 106  | 76                           | 42                          | 8  | 13.18                               | 34563   |
| ragi       | 25   | 25                           | 4                           | 2  | 14                                  | 3549  |
| arhar(tur) | 46   | 38                           | 13                          | 1  | 35.47                               | 15507   |
| urad       | 57   | 37                           | 16                          | 1  | 37.61                               | 18783   |
| moong      | 98   | 72                           | 18                          | 1  | 53.33                               | 8227  |
| sugarcane  | 398  | 361                          | 310                         | 34   | 2.79                                | 36000   |
| potato     | 42   | 32                           | 2                           | 32   | 6.75                                | 8625  |
| groundnut  | 64   | 45                           | 11                          | 2  | 39.4                                | 15509   |
| coconut    | 228  | 86                           | 19                          | 1  | 10.7                                | 9571  |
| soyabean   | 79   | 57                           | 36                          | 6  | 29.25                               | 45017   |
| cotton     | 204  | 154                          | 69                          | 12   | 37.44                               | 57158   |
| jute       | 154  | 91                           | 6                           | 0  | 18                                  | 9038  |

# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 19B: Number per 1000 of agricultural households having awareness about MSP for selected crops during January 2013 - June 2013**

| Crop             | number per 1000 households reporting sale of crops |                             |                            | of the households sold to procurement agency |                                     | estd. no. of households reporting sale of crop (00) |
|------------------|--|-----------------------------|----------------------------|--|-------------------------------------|---|
|                  | aware of MSP                                       | aware of procurement agency | sold to procurement agency | % of sale at MSP to total sale               | avg. sale rate received at MSP (Rs) |   |
| (1)              | (2)  | (3)                         | (4)                        | (5)  | (6)                                 | (7)   |
| paddy            | 315  | 187                         | 100                        | 14   | 13.15                               | 54578   |
| jowar            | 213  | 207                         | 192                        | 36   | 13.83                               | 4565  |
| maize            | 118  | 61                          | 29                         | 4  | 11.45                               | 19581   |
| wheat            | 392  | 345                         | 162                        | 35   | 13.99                               | 129991  |
| barley           | 110  | 105                         | 16                         | 1  | 4.75                                | 1432  |
| gram             | 126  | 97                          | 39                         | 5  | 29.96                               | 33190   |
| arhar(tur)       | 142  | 131                         | 47                         | 1  | 47                                  | 3517  |
| moong            | 91   | 37                          | 19                         | 2  | 58                                  | 6893  |
| masur            | 181  | 155                         | 20                         | 0  | 36                                  | 7352  |
| sugarcane        | 454  | 407                         | 366                        | 33   | 3.25                                | 20558   |
| potato           | 121  | 90                          | 6                          | 2  | 8.83                                | 24679   |
| onion            | 153  | 98                          | 6                          | 1  | 17.5                                | 5955  |
| groundnut        | 89   | 82                          | 13                         | 1  | 37.62                               | 6770  |
| rapeseed/mustard | 155  | 128                         | 29                         | 14   | 3.84                                | 36155   |
| coconut          | 215  | 110                         | 17                         | 0  | 9.34                                | 11084   |
| cotton           | 226  | 177                         | 84                         | 3  | 34.15                               | 10753   |

**Statement 20A: Number per 1000 of agricultural households having awareness about MSP but did not sell to procurement agency for selected crops during July, 2012 - December, 2012**

| Crop       | household aware of MSP of selected crop among per 1000 of hhs reporting sale of crops |                            |  |                    |                      |                          |                                |        |       | estd. no. of households reporting sale of crop (00) |
|------------|---|----------------------------|--|--------------------|----------------------|--------------------------|--------------------------------|--------|-------|---|
|            | aware of MSP  | sold to procurement agency | did not sell to procurement agency by reason |                    |                      |                          |                                |        |       |   |
|            |   |                            | procurement agency not available             | no local purchaser | poor quality of crop | crop already pre-pledged | received better price over MSP | others | total |   |
| (1)        | (2)   | (3)                        | (4)  | (5)                | (6)                  | (7)                      | (8)                            | (9)    | (10)  | (11)  |
| paddy      | 322   | 135                        | 31   | 18                 | 4                    | 2                        | 12                             | 117    | 187   | 186734  |
| jowar      | 83  | 17                         | 6  | 8                  | 0                    | 0                        | 17                             | 34     | 66    | 15106   |
| bajra      | 160   | 30                         | 22   | 12                 | 1                    | 0                        | 11                             | 79     | 130   | 17487   |
| maize      | 106   | 42                         | 8  | 18                 | 1                    | 1                        | 10                             | 25     | 64    | 34563   |
| ragi       | 25  | 4                          | 3  | 2                  | 0                    | 2                        | 4                              | 10     | 21    | 3549  |
| arhar(tur) | 46  | 13                         | 2  | 5                  | 1                    | 0                        | 15                             | 11     | 33    | 15507   |
| urad       | 57  | 16                         | 2  | 13                 | 1                    | 0                        | 4                              | 20     | 41    | 18783   |
| moong      | 98  | 18                         | 7  | 6                  | 0                    | 0                        | 16                             | 50     | 79    | 8227  |
| sugarcane  | 398   | 310                        | 9  | 2                  | 3                    | 2                        | 6                              | 64     | 88    | 36000   |
| potato     | 42  | 2                          | 4  | 1                  | 0                    | 0                        | 1                              | 17     | 40    | 8625  |
| groundnut  | 64  | 11                         | 22   | 2                  | 0                    | 1                        | 8                              | 20     | 53    | 15509   |
| coconut    | 228   | 19                         | 60   | 13                 | 28                   | 3                        | 8                              | 97     | 209   | 9571  |
| soyabean   | 79  | 36                         | 9  | 2                  | 1                    | 0                        | 9                              | 21     | 43    | 45017   |
| cotton     | 204   | 69                         | 34   | 18                 | 4                    | 1                        | 33                             | 45     | 134   | 57158   |
| jute       | 154   | 6                          | 74   | 15                 | 0                    | 0                        | 4                              | 54     | 147   | 9038  |

# MICRO FOUNDATIONS OF PUBLIC POLICY

**Statement 20B: Number per 1000 of agricultural households having awareness about MSP but did not sell to procurement agency for selected crops during January 2013 - June 2013**

| Crop             | household aware of MSP of selected crop among per 1000 of hhs reporting sale of crops |                            |  |                    |                      |                          |                                |        |       | estd. no. of households reporting sale of crop (00) |
|------------------|---|----------------------------|--|--------------------|----------------------|--------------------------|--------------------------------|--------|-------|---|
|                  | aware of MSP  | sold to procurement agency | did not sell to procurement agency by reason |                    |                      |                          |                                |        | total |   |
|                  |   |                            | procurement agency not available             | no local purchaser | poor quality of crop | crop already pre-pledged | received better price over MSP | others |       |   |
| (1)              | (2)   | (3)                        | (4)  | (5)                | (6)                  | (7)                      | (8)                            | (9)    | (10)  | (11)  |
| paddy            | 315   | 100                        | 53   | 19                 | 5                    | 7                        | 13                             | 117    | 215   | 54578   |
| jowar            | 213   | 192                        | 2  | 12                 | 0                    | 0                        | 0                              | 8      | 21    | 4565  |
| maize            | 118   | 29                         | 18   | 21                 | 0                    | 4                        | 7                              | 40     | 90    | 19581   |
| wheat            | 392   | 162                        | 18   | 18                 | 3                    | 2                        | 12                             | 171    | 230   | 129991  |
| barley           | 110   | 16                         | 39   | 3                  | 0                    | 0                        | 8                              | 45     | 94    | 1432  |
| gram             | 126   | 39                         | 9  | 7                  | 2                    | 0                        | 15                             | 55     | 87    | 33190   |
| arhar(tur)       | 142   | 47                         | 0  | 2                  | 0                    | 0                        | 73                             | 20     | 95    | 3417  |
| moong            | 91  | 19                         | 24   | 1                  | 0                    | 0                        | 2                              | 45     | 72    | 6893  |
| masur            | 181   | 20                         | 2  | 99                 | 0                    | 0                        | 22                             | 38     | 161   | 7352  |
| sugarcane        | 454   | 366                        | 12   | 1                  | 3                    | 0                        | 4                              | 52     | 88    | 20558   |
| potato           | 121   | 6                          | 22   | 29                 | 0                    | 0                        | 19                             | 43     | 115   | 54679   |
| onion            | 153   | 6                          | 37   | 7                  | 0                    | 0                        | 24                             | 78     | 147   | 5955  |
| groundnut        | 89  | 13                         | 16   | 23                 | 0                    | 0                        | 4                              | 32     | 76    | 6770  |
| rapeseed/mustard | 155   | 29                         | 17   | 4                  | 1                    | 0                        | 8                              | 95     | 125   | 36155   |
| coconut          | 215   | 17                         | 48   | 9                  | 1                    | 5                        | 20                             | 115    | 198   | 11084   |
| cotton           | 226   | 84                         | 25   | 20                 | 2                    | 0                        | 48                             | 46     | 142   | 10753   |

**Statement 6: Per 1000 distribution of agricultural households by principal source of income during 365 days for major States**

| States           | Per 1000 distribution of households by principal source of income |            |                               |                             |                           |           |             | est. no. of agri. households (00) |
|------------------|---|------------|-------------------------------|-----------------------------|---------------------------|-----------|-------------|-----------------------------------|
|                  | cultivation   | live-stock | other agricultural activities | non-agricultural enterprise | wages/salaried employment | Others    | all         |                                   |
| (1)              | (2)   | (3)        | (4)                           | (5)                         | (6)                       | (7)       | (8)         | (9)                               |
| Andhra Pradesh   | 592   | 45         | 16                            | 35                          | 280                       | 31        | 1000        | 15903                             |
| Assam            | 767   | 42         | 16                            | 23                          | 128                       | 54        | 1000        | 34230                             |
| Bihar            | 697   | 30         | 2                             | 50                          | 163                       | 58        | 1000        | 70943                             |
| Chhattisgarh     | 805   | 0          | 6                             | 15                          | 168                       | 7         | 1000        | 25603                             |
| Gujarat          | 574   | 90         | 7                             | 37                          | 267                       | 14        | 1000        | 39305                             |
| Haryana          | 600   | 91         | 9                             | 47                          | 236                       | 26        | 1000        | 15693                             |
| Jharkhand        | 725   | 1          | 5                             | 16                          | 186                       | 35        | 1000        | 22336                             |
| Karnataka        | 694   | 45         | 31                            | 24                          | 193                       | 17        | 1000        | 42421                             |
| Kerala           | 161   | 60         | 169                           | 134                         | 299                       | 176       | 1000        | 14043                             |
| Madhya Pradesh   | 753   | 25         | 1                             | 6                           | 204                       | 11        | 1000        | 59950                             |
| Maharashtra      | 717   | 27         | 5                             | 69                          | 180                       | 22        | 1000        | 30930                             |
| Odisha           | 602   | 10         | 12                            | 73                          | 259                       | 43        | 1000        | 44935                             |
| Punjab           | 456   | 92         | 5                             | 51                          | 119                       | 24        | 1000        | 14053                             |
| Rajasthan        | 456   | 64         | 5                             | 55                          | 334                       | 82        | 1000        | 44535                             |
| Tamil Nadu       | 548   | 102        | 11                            | 23                          | 293                       | 23        | 1000        | 32443                             |
| Telangana        | 863   | 15         | 5                             | 18                          | 62                        | 29        | 1000        | 25339                             |
| Uttar Pradesh    | 652   | 11         | 2                             | 51                          | 187                       | 26        | 1000        | 180435                            |
| West Bengal      | 558   | 12         | 17                            | 53                          | 268                       | 63        | 1000        | 63624                             |
| <b>All India</b> | <b>635</b>  | <b>37</b>  | <b>11</b>                     | <b>47</b>                   | <b>229</b>                | <b>51</b> | <b>1000</b> | <b>902011</b>                     |

\*based on all States and UTs, including States and UTs not shown in the Statement

\*others includes pension and remittance also



**Annexure 2:**

**Discussion session of the Fifteenth MN Srinivas memorial lecture delivered by Prof. TN Srinivasan, Samuel C Park Jr. Professor of Economics Emeritus and Professor Emeritus of International and Area studies, Yale University, New Haven, CT, USA and Distinguished Professor, IIT Madras on the 19<sup>th</sup> of January, 2016 at National Institute of Advanced Studies, Bangalore**

1. Q - What is the role of Bretton woods, IMF and the World Bank in developing countries? There is a stream of thought that ascribes the poverty of developing nations to their policies.

A – There are aspects of all policies, including those of Bretton Woods Institutions which have unintended side effects. These could go against the poor even if the policies are intended for the poor. If you are asking whether World Bank has an agenda to impoverish nations, I would say it is not possible, as most poor countries are members of the World Bank and are represented on its governing Board. Hence the World Bank cannot be at fault.

2. Q – In Srinivas's framework caste will emerge as a feature of identity but as a layman we have believed that caste will disappear. Could you please explain?

A – In his autobiographical essay in 1997, Srinivas writes that the function or use of caste in Rampura way back then as compared to recent times could be very different. Today's businessmen-employers would not care about caste of the workers. Heather and Vijay Joshi had written about this in the context of Bombay labour market. That while caste as a system is disappearing, the use of individual caste affiliation for personal gain is growing is the Srinivas proposition.

3. Q – Social security system exists in many European countries. Many governments take it as a burden, but is it possible to adopt in India?

A – Tamil Nadu started a pension scheme long ago, so we do have social security. The main insecurity comes from health problems, and therefore it is important to provide health care and life insurance, which will help to mitigate shocks that come from some adverse health event.

4. Q – The economically deprived farmers are committing suicides, is policy change possible to address this?

A – The usual story is the lack of the capacity to service debt. The cause of debt may not have anything to do with growing BT cotton or high yielding varieties. In 1969 banks were nationalized to provide safe investment opportunities for rural folks through opening rural branches. Despite this, local moneylenders are still a major source of credit, as they are always accessible. Another important issue is that farmers' unserviceable debts are not always accumulated from spending related to agriculture; In fact, marriage, dowry and death are important sources of debt.

5. Q – What is the role of the institution of marriage in the continuation of caste?

A – There are more inter caste marriages taking place now than earlier, it seems. But we do not have credible factual evidence about this. There is also more reporting about inter caste marriages today. Majority of marriages still continue in the same way as before.

6. Q (Prof. Roddam Narasimha) – In his essay Obituary of Caste,

Srinivas wrote that caste as a system may come back.

A - Castes want a greater share in power and wealth, as well as win elections, so he was right about that.

7. Q – Caste being hereditary, how has Sanskritization helped lower castes to be upwardly mobile? How about rejecting caste as an alternative strategy?

A – Living in a community of individuals who believe in caste, unilateral rejection by certain individuals will not have any impact on daily life.

8. Q - Nowadays people get rid of their surnames, this is common for instance in Bihar, Himachal Pradesh and in south India. Has it made an impact?

A – This is a hypothesis that needs more scrutiny. My guess is that its only impact is to create confusion as to the real given name of an individual.

9. Q - There is a resilience of caste despite globalization, urbanization and capitalism, but is there a resilience of caste to conversion and religion?

A –The converted often retain their caste-surnames which are in fact indicators of their occupations. For example a Lohar is one whose occupation is that of a metal worker so a person with surname Lohar could be a Hindu or a Muslim. We shouldn't confound occupational classification from caste.

10. Q – As long as party politics are organized – caste consolidation will continue to take place. Please comment.

A – This is a tricky proposition, did caste come first or politics?





