**ASSESSMENT OF MARGINAL WORKERS IN TAMIL NADU**

**A SOCIOECONOMIC ANALYSIS (ADS)**

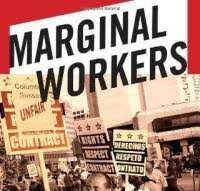
**ASSESSMENT OF MARGINAL WORKERS IN TAMIL NADU:**

**INTRODUCTION:**

**ABOUT :**

A number of changes have been incorporated in Cenus 2011 for the better capturing and analysis of data. The details of the changes incorporated are given hereunder.  
  
1. Gender: New category “Other” introduced in addition to Male and Female.   
  
2. Date of Birth question introduced along with Age.   
  
3. Current Marital Status: Separate codes Assigned for Separated and Divorced.   
  
4. New filter Question on SC/ST Introduced – “Is this person SC/ST?”   
  
5. Disability: The question on disability canvassed at the Census 2001 has been modified. Household Schedule attempts to collect information on eight types of disabilities as against five included in the Household Schedule of Census of India 2001. The information is being collected on disabilities namely, disability ‘In Seeing’, ‘In Hearing’, ‘In Speech’, ‘In Movement’, ‘Mental retardation’, ‘Mental Illness’, ‘Any Other’ and ‘Multiple Disability’.

6. A separate code-5 has been included under Non-economic activity for rentiers.   
  
7. Migration – Provision to specify the present name of the Village/Town of the Birth Place as well as the Place of Last Residence introduced.   
  
8. Name of the Institutional Household is also being recorded.   
  
This was stated by the Minister of State in the Ministry of Home Affairs, Shri Gurudas Kamat in written reply to a question in Rajya Sabha to



**A SOCIOECONOMIC ANALYSIS (ADS)**

**INTRODUCTION :**

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**Socio-economic analyses:**

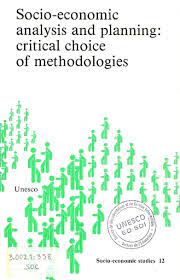
**Socio-economic analyses can help us assess the benefits and costs associated with climate change adaptation measures.**  
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Socio-economic screening of climate change adaptation  
The Ministry of Climate and Energy has published a cross-sector, national socio-economic screening of climate change adaptation, June 2010.  An English summary of the report can be downloaded from the publication list.



Modeling pandemic propagation is one of the most complicated subjects that are studied as dynamic systems or stochastic problems. Several approaches have been developed in order to enhance the understanding of the pandemic kinetics through a population. Phenomenological models like the basic SIR model (Susceptible, Infected, Recovered) and the related upgraded versions try to simulate the way a pandemic evolves .The SIR models are described by a system of Ordinary Differential Equations (ODEs) for which the initial conditions depend on the space and time considerations, according to the characteristics of each country.

Researchers developed number of approaches in order to estimate the different characteristics of the outbreaks evolution; Vizi et al. adopted pair-wise models with Markovian infection and arbitrary recovery processes that vary, so that the effect of recovery process choice is estimated . while other introduced additional SIR compartments to quantify different aspects on the propagation mechanisms and disease transmission. For instance, Maier and Brockmann proposed a new symptomatic-quarantined infected population compartment, .

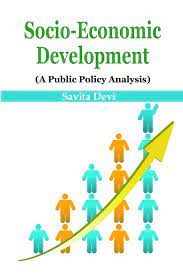


while Nadim et al. incorporated additional compartments such as quarantined, asymptomatic, and isolated compartments to simulate and catch the short-term behavior of COVID-19 and to discuss the preventive strategies against it Other studies built up physical-inspired approaches like the recrystallization Ostwald Growth theory to study different containment scenarios.the containment strategies were proved to slow down the kinetics of the pandemic as well as the wall boundaries should do for kinetics of crystal’s growth .

Samely, Bouchnita and Jebrane used the physics of particles dynamics to study the dynamics of pair-wise contact models between individuals that belong to a closed population. The characteristics of the closed region and the population that were studied are included as main features of the simulation so that it was possible to quantify the effect of the demographic characteristics on the outbreak propagation in closed regions .

Other researchers were more interested by the mathematical structure of the SIR models; the existence of the solution of the problem and the different scenarios are built up by varying the input of the simulations. That is why, based on the SIR model, Katriel studied the seasonality of the pandemic and proved the existence of the return period of a given pandemic while R0 is higher than .

Furthermore, other researchers tried to figure-out the eventual relationships that might exist between socio-economic characteristics of countries and the disease kinetics.



Most of these researches handle systemic models in terms of time series modeling statistical analysis stochastic and dynamic analysis using epidemiological modeling For instance, Nader et al. used non-parametric machine learning model to estimate the

Non-Pharmaceutical Interventions (NPI) effects on COVID-19 propagation; based on the simulations, the authors summarized numerous conclusions related to short-term pandemic propagation in schools or according to business activities in 176 countries (that was expressed by means of GDP per capita). Symmetrically, Lee et al. studied different scenarios of schools re-opening in Shanghai in terms of pandemic propagation regarding the age-structure and different contact patterns. Within the same scope

Arachchi and Managi associated the death rate of COVID-19 to the social behavior for different countries; this statistical analysis included the social capital based on multidimensional analysis as community attachment, social trust, family bonds, and security. The study figured-out interesting observations of death increase according to population density and ageing, while it is the inverse as the number of hospital beds increases and lockdown policy is appliedSimilar results were produced by Kaufman et al. proving that social distancing mandates the spread of the pandemic to decrease in USA, supporting the fact that NPI are as mostly importance even in case of vaccination.