

# Kiang Nangbah Govt. College, Jowai Department of Commerce

# Report on the National Webinar held on 12/03/2022

Topic: Indian Growth Model

The webinar was jointly organised by Commerce Department, Kiang Nangbah Government College, Jowai in collaboration with the Department of Economics, Sankardev College, Shillong.

#### **Programme**

- 1. Compere: Prof Shaikupar Kharshiing, Dept. of Economics, Sankardev College, Shillong
- 2. Moderator-cum-chair person: Dr. P. M. Passah, former professor of Economics, North Eastern Hill University, Shillong
- 3. Welcome-cum-Inaugural address: Prof R Singh, Vice-Principal, Sankardev College, Shillong
- 4. Vote: Prof H Toi, Head, Dept. of Commerce, Kiang Nangbah Government College, Jowai
- 4. Resource persons:
- a. Prof Chetan Ghate, Macroeconomist,
   Director, Institute of Economic Growth,
   University Enclave, New Delhi, North Delhi, Delhi-110007
- b. Dr Pawan Gopalakrishnan, Macroeconomist, and Manager (Research), RBI, Mumbai
- c. Ms Srishti Grover, MS(Quantitative Economics), ISI, New Delhi



Dated: Shillong, February,

Sequence of events

No. WSMGM/2022/C2C/01

11, 2022

To,

Prof Chetan Ghate, Macroeconomist,

Director, Institute of Economic Growtth,

University Enclave, New Delhi, North Delhi, Delhi-110007

Subject: Proposal for organising a National Webinar on Indian Growth model- request thereof.

#### Respected Sir,

Heartiest congratulations for your achievement and a well-deserved recognition by the concerned authority in the country. Iam honouredand privileged to get this opportunity of writing this proposal of holding a webinar on the mentioned topic based on you book.

I am writing this letter on behalf of the organisers [comprising of the faculty members of Commerce, Kiang Nangbah Government College, Jowai and faculty members of Economics, Sankardev College, Shillong] to request you to kindly suggest the date of the webinar in the month of March, 2022.

As I used to visit your LinkedIn page from time to time since 2010, I did the same on the 16<sup>th</sup> December, 2020. Your kind response to my congratulatory note on your promotion to the post of Professor of Economics, Indian Statistical Institute, New Delhi. was indeed motivating, encouraging and so inspiring.

For your kind information, when we had a departmental meeting on the 3<sup>rd</sup> December, 2021, with Dr E M Blah, the Principal, Kiang Nangbah Government College, Jowai, I was found fit to be entrusted with the work relating to organising a workshop/seminar/webinar on behalf of the Department. Consequently, on the 17<sup>th</sup> December, 2021, I was quite excited to know about your new book "The Mahalanobis Growth Model" and that a small virtual workshop could be organised with you as the resource person.

Now, preparation for the same ison-going in full swing. Thankfully, Sankardev College, Shillongwhich you had visited once in 2010 has several facilities as per the need of the teachers and students alike including a modern conference hall well equipped with wifi connection, sound system, camera and proper sitting arrangements. Going forward, Dr E F P Lyngdoh, the Principal, said Sankardev College, ShIllong is willing to provide the facilities for the webinar including zoom meeting platform which can accommodate not less than 500 participants. We are thrilled beyond words to get this kind of academic support.

On the basis of the above, we would fervently request you to kindly accept our proposal of hosting this virtual event and to finalise the date (as soon as possible) so that invitation to targeted audience/participants be sent in time. On receiving your written response to this proposal, the Principals of both the colleges would duly be informed for information and necessary action.

With gratitude, we are looking forward to this great event of meeting you online very soon.

Thanking you,

Sincerely yours,

Sd/-Mr Steshon D Tynsong, Convener

Organising Committee
Webinar on Indian Growth Model



### vvebinar on indian Growth







Director's Office 4:12 PM to me, Chetan ~



Dear Dr. Tynsong, Greetings from IEG!

I hope you are well and safe.

Thank you very much for the invitation for organizing the National Webinar on Indian Growth Model based on the book titled "The Mahalanobis Growth Model" – A Macro-dynamics Approach" on March 12, 2022.

The arrangements are okay with us. Please go ahead with organizing the event. I look forward very much to the Workshop.

With kind regards,

Chetan Ghate Director, IEG



To
Mr. Streshon D Tynsong
Convener, Organising Committee

# Workshop (webinar) on Indian Growth Model, based on a book titled "The MahalanobisGowth Model – A Macrodynamics Approach" by Chetan Ghate, PawanGopalakrishnanandSrishti Grover

### Concept note

#### Introduction

As we know, Economics was initially referred to as Political Economy. During those initial years, mathematical concepts were not part of economic analysis. Adam Smith's book "An Inquiry into the Nature and Causes of The Wealth of Nations" has no elements of Mathematics in it. However, Economics as a social science has evolved over time to become a discipline of study in which mathematical concepts and methods of analysis were being applied successfully. Thus, the field of economics is full of mathematical equations and applications.

The types of mathematics used in economics are primarily Algebra, Calculus and Statistics. Recognising the meaningful applications of mathematics in the field of Economics, UGC model curriculum has both Mathematics and Statistics as compulsory papers for UG and PG courses in Economics in all Indian Universities. It is also a fact that there are mathematical concepts, tools and methods which are widely used in Microeconomics, Macroeconomics and across all branches of Economics. It is also quite evident that the synthesis of mathematics, statistical methods and economic principles have created a whole new branch of study like Econometrics. So also the branching out of the subject into Mathematical Economics, Economic Statics, Economic Dynamics, Operation Research and the Theory of Economic Growth to name a few is undoubtedly due to the application of Mathematics.

#### **Objectives**

Understanding fully well the importance of mathematics for Economics, the purpose of organising this workshop is to help us achieve the following objectives:

- 1. To create an atmosphere of refreshment and sense of upskilling among the college/university teachers as mandated by the present day digital economy.
- 2. To remind ourselves that Mathematical concepts and methods are very useful and quite powerful if college teachers are made to do research work.
- 3. To open an opportunity for research scholars doing research work in the field of Economics, Mathematics, Statistics and Management to listen to experts in the field of Quantitative Economics.
- 4. To create an atmosphere that helps undergraduate students understand the importance of mathematics for Economics, Science and Technology.

#### The workshop

To mention again, Mathematics is of great help for economists to perform quantifiable experiments and create models for predicting future economic growth.

Advances in computer software, large-data techniques and other advanced mathematical technologies have also played a major role in making quantitative methods a fundamental aspect of economics. In order to prove, disprove or forecast economic behaviour, economics depends heavily on statistical observations. Thus, the applications of Mathematics and Statistics has enabled the quantification of economic changes effectively. It is obviously



through the inclusion of mathematics that theoretical economic models have become useful instruments for day-to-day economic policy decision-making.

#### Mathematical model and Indian Planning

The First Five Year Plan model was based on Harrod-Domar growth model and it was set up in 1952. The main architect of Second Plan Model was Prof. P.C. Mahalanobis. The income growth path equation of the Mahalanobis two sector model shows that income growth depends upon  $\beta_k$ ,  $\beta_c$ ,  $\lambda_k$ ,  $\lambda_c$  and  $\alpha_0$ . In the initial stages, the system grows at a slower rate but as the time passes the rate of growth increases. Due to this, the Indian Planners laid great emphasis on investment in goods sector.

The growth model as contained in the second plan was carried upto the Fifth Five Year Plan (1975-76) as it was based on initial figures of the First Plan.

On the basis of the above, when we know that a book on Mahalanobis Growth Model was written by non-other than Prof Chetan Ghate (and his team) who is known to us, this Virtual workshop is organised so that the target audience gets a chance to hear about the growth model and planning process in India from the experts himself/themselves. We are very much thankful to know that he always has a friendly attitude towards the North East India, as he expressed his desire of doing some meaningful research works on the region. We are also fortunate that his co-authors have expressed their willingness to be a part of the webinar to share their expertise on the topic along with Prof Ghate. The organisers would also like to express their appreciation and gratitude to Dr P M Passah, former professor of economics, NEHU, Shillong for accepting and consenting to grace the occasion as the host chairperson-cum-moderator.

Webinar Organising Committee



#### **Organising Committee**

#### **Patrons**

Dr E M Blah, Principal, Kiang Nangbah Government College, Jowai

Dr E F P Lyngdoh, Principal, Sankardev College, Shillong

#### Contacts

Convener: Mr S D Tynsong, Assoc professor, Faculty of Commerce, Kiang Nangbah Government College, Jowai

Co-convener: Mrs IrabelNongbri, Head, Department of Economics, Sankardev College, Shillong

Co-ordinator: Mr WanshanKhardewsaw, Faculty of Economics, Sankardev College, Shillong

#### Members

Mr Hercules Toi, Assoc. professor and Head, Depatment of Commerce, Kiang Nangbah Government College, Jowai

Dr J P Sharma, IQAC co-ordinator, Kiang Nangbah Government College, Jowai Mr M S Warjri, IQAC co-ordinator, Sankardev College, Shillong

Mr SankiroiBamon, Faculty of Computer Application, Kiang Nangbah Government College, Jowai Mr Ridley M Lyngkhoi, Faculty of commerce, Kiang Nangbah Government College, Jowai Mr Julius Kharkongor, Faculty of commerce, Kiang Nangbah Government College, Jowai Mr Vivek L P Lyngwa, Faculty of commerce, Kiang Nangbah Government College, Jowai Mr RennysonBareh, Faculty of commerce, Kiang Nangbah Government College, Jowai Mr ShaikuparKharshiing, Faculty of Economics, Sankardev College, Shillong Mr DobreiñS Sawkmie, Faculty of Economics, Sankardev College, Shillong

Programme schedule (tentative)

9. 10AM		Joining time
Compere		Mr ShaikuparKharshiing
9.30 AM	Welcome-cum-inaugural address	Prof R Singh
To Brief Introduction of the webinar		Dr P M Passah
9.40AM and the resource persons		
9.40AM -	First Speaker	Dr Pawan Gopalakrishnan
11.40AM		
·	Second Speaker	Ms Srishti Grover
15Minutes		
	Break	Break
12.05PM	Distinguished Speaker	Drof Chatan Chata
		Prof. Chetan Ghate
1.05PM	Question-Answer session	Dr P M Passah
When QnA	Vote of thanks	Mr Hercules Toi
Session is over		



## ON 'INDIAN GROWTH MODEL'

•The Mahalanobis Growth Model' —A Macrodynamics Approach

By Chetan Ghate, Pawan Gopalakrishnan and Srishti Grover

#### ORGANISED JOINTLY BY

Commerce Department with IQAC, Kiang Nangbah Government College, Jowai

Economics Department with IQAC, Sankardev College, Shillong

[Soth are NAAC B-Grade Accredited Institutions affiliated to North Eastern Hill University, Shillong]

### RESOURCE PERSONS



Dr Chetan Ghate, Professor of Economics and Director, Institute of Economic Growth Dally



Dr Pawan Gopalakrishnan



Ms Srishti Grover MS (Quantitative Economics)

Participants of the webinar will be awarded E-certificate.

MARCH 12, 2022 9.30AM to 1.00 PM

#### OBJECTIVES

- To create an atmosphere of refreshment and sense of upskilling among the college/university teachers as mandated by the present day digital economy.
- To remind ourselves that Mathematical concepts and methods are very useful and quite powerful if college teachers are made to do research work.
- 3 To open an opportunity for research scholars doing research work in the field of Economics, Mathematics, Statistics and Management to listen to experts in the field of Quantitative Economics.
- 4 To create an atmosphere that helps undergraduate students understand the importance of mathematics for Economics, Science and Technology.

#### A GIST OF CONCEPT NOTE

Economics as a social science has evolved over time to become a discipline of study in which mathematical concepts and methods of analysis were being applied successfully. Thus, the field of economics is full of mathematical equations and applications. Thus, mathematical approach has been a part and parcel of theoretical economics and theory of economic growth.



#### Organisers

Patrens

Dr E M Blah, Principal, Kiang Nangbah Government College, Jowai Dr. E. F. P. Lyngdoh, Principal, Sankardev College, Shillong Chairman-cum-moderator: Dr P M Passah, former professor of Economics NEHU, Shillong

For any enquiry please contact the following:

Convener: Mr S D Tynsong, Commerce Dept, KNGCJ (+91 9856007998)

Co-convener: Mrs Irabel Nongbri, HoD, Economics, SKDC (+91 6009606955)

Co-ordinator: Mr Wanshan Khardewsaw, Economics Dept, SKDCS (9089465891)

Or, send an email to skdceconomics@gmail.com

REGISTRATION LINK https://forms.gle/5MDKtQQ3M3GQKMKG8

WHATSAPP LINK GROUP FOR JOINING https://chat.whatsapp.com/ClaQboRGeBbFyzkXaZONYg

FILLING OF FEEDBAC (FOR) IS COMPULSORY



12th march event hyperlinked.pdf

Brochure as above

## **Press Release**

12-3-2022

The Department of Economics, Sankardev College in collaboration with the Department of Commerce, Kiang Nangbah, Government College, with the support of their respective IQAC has organised a One Day Webinar on 'Indian Growth Model', based on a book titled "The Mahalanobis Growth Model – A Macrodynamics Approach" written by Chetan Ghate, Pawan Gopalakrishnan and Srishti Grover.

The Webinar was organised with the objective to create an atmosphere of refreshment and sense of upskilling among the college/university teachers as mandated by the present day digital economy and also to open an opportunity for research scholars and to also create an atmosphere that helps undergraduate students understand the importance of Mathematics for Economics.

The Webinar which was conducted on Saturday, 12<sup>th</sup> March, 2022, was graced with the intellectual presentation by the three authors of the book, who deliberated and briefs the participants with the contents of this yet to be published book, vis-à-vis the economic situation in India. The Distinguished Speaker for the webinar was Prof. Chetan Ghate, who is now the Director, Institute of Economic Growth (IEG), New Delhi. Prof Ghate was also the Winner of the 2014 Mahalanobis Memorial Gold Medal for the best research economist in India under the age of 45. He has also been associated as member of the Reserve Bank of India's first Monetary Policy Committee, between 2016-2020 and Professor of Economics at the Indian Statistical Institute (ISI), Delhi for over 18 years. He is also a member of the Advisory Committee of the National Accounts System (ACNAS) in the Ministry of Statistics and Programme Implementation. He is currently an external affiliate of the Centre for Research in Macroeconomics and Macro-Finance at Swansea University (Wales, UK).

In fact, it was Dr Pawan Gopalakrishnan, the first speaker in the webinar who caught the audience hooked on the subject within the first few minutes of his presentation. A macroeconomist whose research interests also include [Endogenous Growth Theory, Real Business Cycle Models, Dynamic Stochastic General Equilibrium modelling (abbreviated as DSGE), Fiscal and Monetary Policy], has made the Mathematics behind Mahalanobis Growth Model sounds so simple and easy to understand. His approach was aimed directly at the level of undergraduate students who atmost had Class-XII standard Mathematics.



Equally, impactful was Ms Srishti's presentation. For the benefits of the participants and students, it is a matter of pride for the organisers to properly introduce the her through this press note that she was the former student of Indian Statistical Institute, New Delhi in Master of Science (Quantitative Economics) with skills in Quantitative Finance, Microeconomics, Macroeconomics, Marketing, MS Word, MS Excel, MS powerpoint, Statistics, Probability, Machine Learning, Econometrics, Game Theory, Python (programming Language), R.1 Software, STATA and MATLAB to name a few. Our association with her is massively inspiring.

Prof Ghate's presentation was in a sense summarised the application of growth models in the history of planning in India. Various models including Mahalanobis' stressed on intensive capital investment which heavily depended upon the high savings rate in the country. To make the audience understand the planning strategy, he discussed an alternative model referred to as VakilBrahmananda growth model which is a Wage Goods Model in brief. The committee expresses its sincere thanks to all of them unequivocally.

The organising committee would like to express its deep sense of gratitude to both the Principals, especially that of Sankardev College, Shillong, Dr.E.F.P. Lyngdoh for having provided the committee with the Google meet platform making the virtual event happened smoothly as planned. The three resource persons under the guidance and leadership of the abled and distinguished speaker, Prof. Chetan Ghate, did exceedingly well to the satisfaction of all. In fact, many participants wanted more from them.

The committee would also like to place on record and expressed its appreciation to Dr P M.Passah, former Professor of economics, NEHU, Shillong, for his readiness, willingness and the efforts he made as moderator of the meet. Last but not the least, the organisers are happily grateful to all participants which included teachers, scholars, students, office staff working behind the scene and members of different organisations who had actively participated from the different parts of the States, Regions and Country as a whole for making the webinar/conference/workshop a grand success.

Our special thank goes to Dr Pranjal Kumar Phukan from Dibrugarh who is himself a professional and a trainer, coach and mentor to several start-ups for the last many years. His presence was a delight to all of us and his query about the relevance of Mahalanobis Growth Model in the present context due to pandemic and in view of VUCA (Volatility, Uncertainty, Complexity, Ambiguity) World was well received by the resource persons and the organisers alike.

SOMOLEY WAS

S D Tynsong Convener **Organising Committee** 

Irabel Nongbri Co-convener **Organising Committee** 

Press clipping (Highland post)

people with disabilities. South Shillong MLA Sanbor Shullai handed over a work order to the approved contractor to build accessibility ramps and other

decided to propose the construction of an annexe building with parking facilities and police staff quarters at Laban Police Station and Rilbong Beat stretch of the road from Laban SC Indoor Stadium up to Pine Mount School Junction and in other parts of areas within South Shillong.

Meghalaya. The meeting discussed various issues related to media houses in the State, problems faced by media houses in terms of government advertisements and also matters related to the welfare of journalists in the State. The meeting also passed a number of resolutions which shall be taken up by MEPA

government. The meeting also elected the new office

with the State

term of 20 Monarch S re-elected president, Thaiang, F Chaudhur Warjri and Nongrum i presidents Thabah as secretary, Lyngdoh a

## Sankerdev College, Kiang Nangbah College hold webinar on 'Indian Growth Model'

HP NEWS SERVICE

Shillong, Mar 13: The Department of Economics at Sankardev College, Shillong, in collaboration with the Department of Commerce at Kiang Nangbah Government College, Jowai, organised a one day webinar yesterday on the 'Indian Growth Model', based on a book titled 'The Mahalanobis Gowth Model - A Macrodynamics Approach', written by Prof Chetan Ghate, Pawan Gopalakrishnan and Srishti Grover, who were also the resource persons for the webinar.

The event was organised with the objective to deliberate on the present day digital economy and the importance of mathematics for economics, the target group

being faculty members of various colleges and universities as well as research scholars from the North East and the country as a

Prof Ghate, is the Director of the Institute of Economic Growth in New Delhi, a recipient of the 2014 Mahalanobis Memorial Gold Medal for the best research economist in India under the age of 45, member of the Reserve Bank of India's first Monetary Policy Committee between 2016-2020 and Professor of Economics at the Indian Statistical Institute (ISI), Delhi, for over 18 years.

PM Passah, former Professor of the Department of Economics at North-Eastern Hill University moderated the webinar.

VATIONAL HEALTHMISSION
Government of Meghalaya

No. DHS/NHM/HR&AD/371/2021-202

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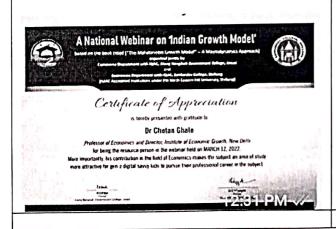
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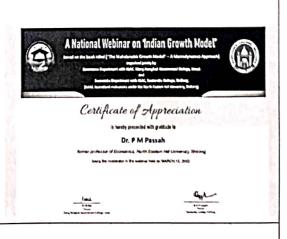
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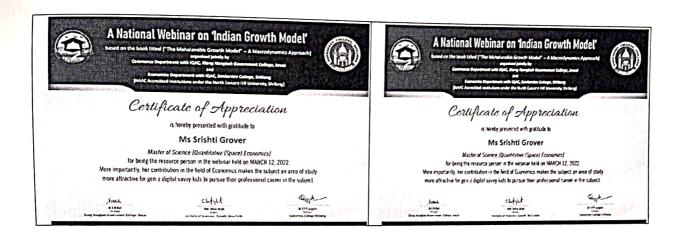
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Certificates to Chairperson and resource persons









This Webinar was organised for the benefit of young teachers and honours students of Economics, Commerce, Management, Statistics and Mathematics in the state f Meghalaya and elsewhere. The chosen topic is based on the book " *The Mahalanobis Growth Model – A Macrodynamics Approach*" written by Chetan Ghate, Pawan Gopalakrishnan and Srishti Grover. These young authors are a great source of inspiration to all of us in this age of online availability of resources because a good book is not replaceable we believe.

The presentation was started with Dr Pawan Gopalakrishnan, followed by that of Ms Srishti Grover and ended with Prof Chetan Ghate's. The main theme of discussion is Mahalanobis Growth Model as implemented in India's Second Five Year Plan. But for the benefit of the participants, Dr Pawan started his presentation with Harrod-Domar model as adopted in India's Five-Year Plan. Dr Pawan and Ms Srishti stressed on Mahalanobis' model and talked about the growth of both capital goods and consumption goods sectors in the economy.

Prof Chetan, on the other hand, highlighted the importance of this growth model and also the wage-goods-model of Vakil and Brahmananda which states that "the rate of growth of real income is determined by the proportion of savings to income and the portion of such savings devoted to the expansion of the wage goods sector." He then discussed briefly about the present scenerio of planning process in the country. It is also interesting to know that despite the significant achievement at the macro-level, growth story in India is identified with growth paradoxical problems even after many decades of independence.

#### Participation:

Number of participants registered online = 400+

Number of participants who joined the webinar = 300+

E-certificate was issued to all participants.

The overall participation was quite overwhelming and the programme was a grand success to the satisfaction of all - the organisers, the resource persons and participants alike.

Convener

Co-convener

