

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:3077

ANSWERED ON:12.08.2005

STUDY ON PRIMITIVE TRIBALS IN ANDAMAN NICOBAR

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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether as a result of study by the Centre for Cellular and Molecular Biology has conclusively proved that the two primitive tribes of Andaman and Nicobar Islands are descendents of people who migrated through sea from Africa; and

(b) if so, the details thereof ?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE (INDEPENDENT CHARGE) OF THE DEPARTMENT OF OCEAN DEVELOPMENT(KAPIL SIBAL)

(a)&(b) Yes. Sir, Centre for Cellular & Molecular Biology (CCMB), Hyderabad studied origin of the 6 tribal populations of the Andaman and Nicobar Islands, of which 4 were Negroid (Onge, Jarawa, Great Andamanese and Sentinelese) and 2 were Mongolid (Nicobarese and Shompens) populations. CCMB Scientists collected blood samples from 46 Onge, 20 Great Andamanese and 25 Nicobarese ; and the buccal swab from 4 Jarawa tribals and initially analyzed the samples with the paternally inherited Y chromosome markers to trace the paternal lineage.

Studies demonstrated that the Onge and Jarawa fell in a genetic group closely related to the African specific origin. However, none of the Great Andamanese, although phenotypically similar to Onge and Jarwa, showed close affinities with the modern human populations, suggesting that original chromosomes of the Great Andamanese have been replaced by the recently evolved Y chromosome. In the same study CCMB scientists analysed very small region of the maternally inherited DNA (from mitochondrial DNA) and found that they showed close affinities with the Asian populations.

On complete sequencing of the mitochondrial DNA of 5 Onge, 5 Great Andamanese and 5 Nicobarese, several novel mutations (changes in DNA sequence) were found in Onge and Great Andamanese tribes, which have not been identified either in any of the world populations or in the 600 Indian samples screened by them. Based on the mutations in mitochondrial DNA of these populations, CCMB scientists estimated that they are the descendants of the group of people, who first migrated out of-Africa about 50,000-70,000 years ago, taking the southern route of migration by sea route via India to populate Southeast Asia and Australia , in contrast to the Nicobarese who have migrated from Southeast Asia , about 18,000 years ago, as these , samples showed affinity with populations found in China, Myanmar and other Southeast Asia.