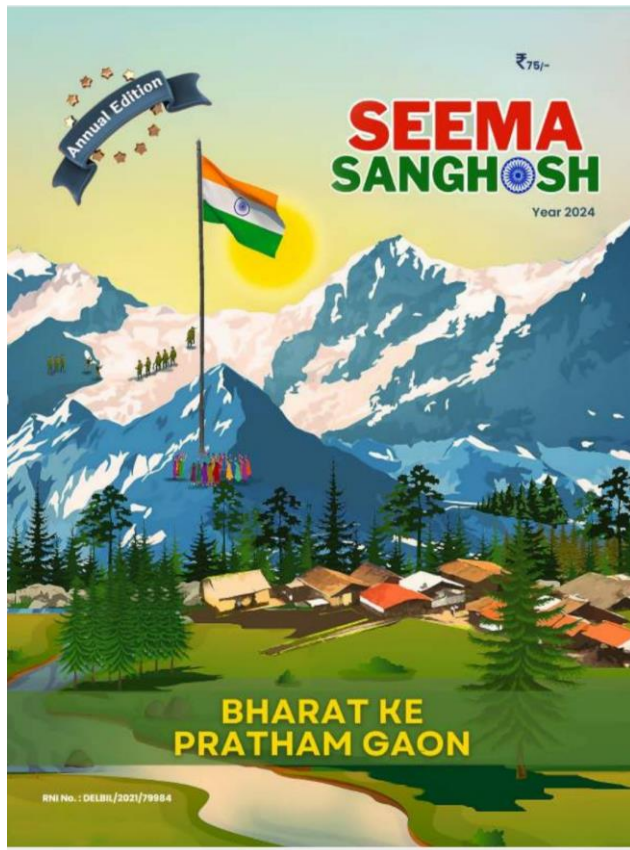




## First INA Administered Village in Naga Hills- Dr. Zhokusheyi Rhakho



**Dr. Zhokusheyi Rhakho**  
Professor at Phek Govt. College, Phek, Nagaland


### First INA administered village in Naga Hills

The INA was given independent charge by the Japanese Generals to proceed on to Kohima with instruction that with the fall of Imphal "to advance rapidly and cross the Brahmaputra into the heart of Bengal."

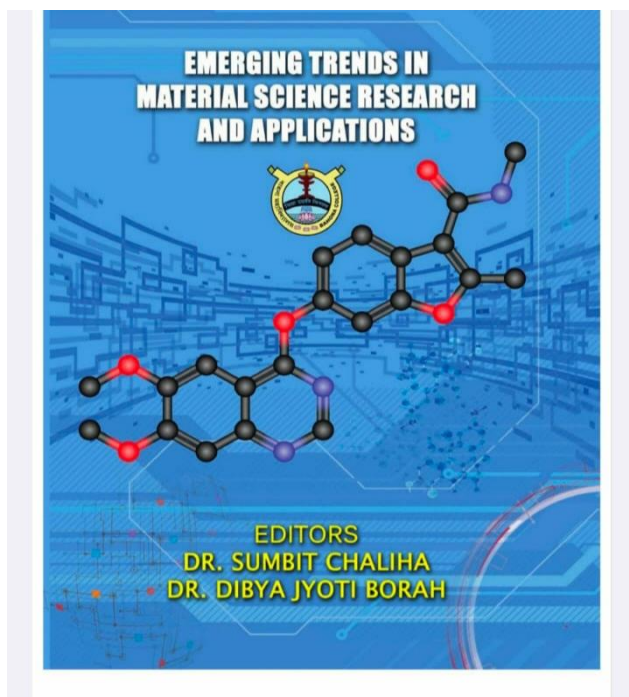
**Azad Hind administration: the First Gaon**

After overrunning all British outposts along the routes from Burma to Naga Hills, the INA arrived in Ruzazho village in the early part of April 1944. Bose himself was reported to have camped at Ruzazho village which is 75 km away from Kohima, where an eye witness Poswuyi Swuro (age 96 as in 2017) was said to have served as the interpreter/dobashi for Bose. When Bose reached the Village, he called a meeting with the people and this was where he organised the first Azad Hind administration when he appointed 10 Gaon

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## Exploring the smart and tungsten based alloys: Advances in the quest for the optimal plasma facing material for future DEMO reactors – Mr. Sabir Chetri



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### EXPLORING THE SMART AND TUNGSTEN BASED ALLOYS: ADVANCES IN THE QUEST FOR THE OPTIMAL PLASMA FACING MATERIAL FOR FUTURE DEMO REACTORS

\*SABIR CHETRI & MIZANUR RAHMAN

**WHAT IS A PLASMA FACING MATERIAL ?**

In the realm of fusion energy and the pursuit of harnessing the power of the stars, the concept of a "Plasma Facing Material" (PFM) stands as a critical pillar in the foundation of this groundbreaking technology. A fusion reactor like, the International Thermonuclear Experimental Reactor (ITER) is a machine designed to replicate the energy-producing processes of the sun by creating and confining a superheated, electrically charged gas called plasma. Mainly, two components of the reactor will be exposed to the plasma load i.e., the "First Wall" which acts as an overcoat to the blanket material and the "Divertor" which dissipates the heat and ash produced in the fusion reaction, thus minimizing plasma contamination. To achieve this extraordinary feat, scientists and engineers have been tasked with a formidable challenge - finding materials that can withstand the extreme conditions of a plasma while maintaining the integrity of the reactor itself. Currently, due to unavailability of an integrated device, material testings are being carried out at specialised facilities around the world like: MAGNUM-PSI (DIFFER, Netherland), STEP (Beihang University, China), CMPL-PSI (CPP-IPK, Assam, India), PFCES (UCSD, California) etc. [1-4]. An in-depth analysis of these tests can minimize the risk of an unexpected material or component failure in the future reactor. This quest has given rise to the essential field of PFMs, a subject that bridges the gap between materials science, engineering, and the limitless potential of clean, sustainable energy generation. However, to achieve it successfully, significant technical problems, particularly in the field of high-temperature and radiation-resistant materials, must be solved.

In this chapter, we will emphasize the ongoing progress for finding the optimal PFM candidate, Department of Physics, Gauhati University, Gauhati-781014, Assam, India  
\*E-mail: sabirchetri77@gmail.com

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