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**SCIENCE COMMUNICATION VIA THE MEDIUM OF STREET THEATRE  
FOR BHIL TRIBE OF MADHYA PRADESH IN SPECIAL CONTEXT OF THE  
PROGRAMME**

***“KONA THI VIGYAN NI VAAT”***

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## Abstract

This paper discusses the variety of strategies adopted in the effective implementation of the programme “*Kona Thi Vigyan Ni Vaat*” jointly conceived by Vigyan Prasar(VP) and Madhya Pradesh Council of Science and Technology (MPCST). Starting from July 2012, this one year long programme based on street theatre, especially designed for Bhil tribes of Madhya Pradesh has proved successful in bringing scientists, drama experts, artists, science writers, local activists and students on one platform, who then worked together to produce pieces of dramatic performance addressing a wide range of scientific issues. 400 street plays or *Nukkad Nataks* were performed in five Bhil dominated districts of Madhya Pradesh to raise awareness on the various issues related to tribe’s health and hygiene, environment, agriculture, technology etc. Our results could be useful reference for those wishing to communicate science via the medium of street theatre to deliver science to a wider audience.

*Keywords:* science communication, nukkad natak, theatre, Bhil tribe

## Introduction

Science Communication through theatre creates an interface between science and arts. It combines cultural, ethical and social aspects of science. Drama from centuries is being used in many countries, not just for entertainment but as a media for giving social messages. In India street-plays or the *nukkad-natak* has been a common form of drama used for transmitting social messages. Modern science has dramatically changed the world around us and is affecting our lives in many ways. The advancement of science has created a gap between people who have knowledge to use science and those who don’t have. This gap can be filled only by creating awareness about advantages of science and technology. Everyday we hear about health issues like AIDS, Polio, TB, Malaria etc. global warming, gene therapy, agricultural related issues like pesticide, water resistant crops, crop varieties, animal husbandry, fodder and much advance topics like stem-cell research, nanotechnology, biogas, and environment degradation etc. Moreover, we begin to realize that beyond dealing with intriguing discoveries and technical problems, scientific progress has social and ethical implications that should be addressed by our entire society. In contemporary theatre this is reflected by increase in number of ‘science

plays'. The use of drama is an educative experience for both the performers as well as the audience. Formal theatre has been regularly used by the activists and this medium undoubtedly leaves a long lasting effect on audiences. Drama takes many forms. Besides the role-play and street play, one also comes across pantomime plays that do not use language but only facial expressions and body gestures. Dance is also a form of drama. The classical dances like Kaththak, Odissi, Kathakali, etc. have been effectively used in communication of social messages.

Vigyan Prasar has been using radio as a medium for its science awareness mission since its inception in 1989. These radio programmes are being broadcast in 19 languages from 117 stations of All India Radio on weekly basis. Every year VP develops special programmes for different tribal communities of India. In our country almost 400 languages and dialects are used for communication out of which 304 dialects are associated with 613 tribal communities. To empower these tribal communities with development process, tremendous efforts are being carried out by govt. and non-government agencies. To supplement these ongoing efforts, VP is playing an important role by creating scientific awareness through radio which is still a cheapest and popular media among these groups. Till now VP has developed radio programmes in Kok-borok (Tipura), Khasi (Meghalaya), Bhili (MP), Chhattisgarhi (Chhattisgarh), Gondi (MP, Chhattisgarh) and Balati/Purugi (Kargil district of J&K) languages. These radio serials became very popular among the tribal communities and helped them to understand local issues in their own dialects. These programmes are being developed in the form of radio science serial with the help of local available experts, writers, science communicators etc. These serials make them aware about issues related to their health, hygiene, agriculture, environment, energy, traditional knowledge etc by identifying related problems and suggesting appropriate solutions. These programmes were broadcast through local radio station of All India Radio.

Drama and docu- drama were the formats which were used for producing radio serial in bhili language. These radio scripts may be utilized in performing nukkad nataks was the testing hypothesis in formulating the project "*Kona Thi Vigyan Ni Vaat*"

## **Bhili Tribal Group: Background**

The Bhils, India's second largest tribal community, live in Madhya Pradesh, Gujarat, Rajasthan and Maharashtra. Madhya Pradesh is a state with the largest tribal population of India. As per the census of 2001 - Total population of M.P. is 60,348,023 whereas total tribal population of M.P. is 12,233,474. Bhils comprise 37.7% of the total tribal population of M.P. Bhils speak Bhili, which is an Indo Aryan language. The rich cultural tradition of the Bhils of Madhya Pradesh is manifest in their rituals, their songs and dances, their community deities, tattoos, myths and lore. The Bhils, like all *adivasis*, live close to nature. Their economy is based on agriculture and when the rains fail, they face great hardship and in hundreds migrate to Bhopal, Kota and Delhi to work as construction labour. They have village headsmen, who deal with their disputes. The districts of Jhabua, Alirajpur, Badwani, Dhar and Khargaun in the south-western corner of Madhya Pradesh are home to the Bhil adivasi with the various sub-tribes like Bhil, Bhilala, Patelia and Mankar.

## **Science and Technology Intervention**

Why these communities do not actively participate in the process of development? What are the real problems which they face in day to day life? How their skills can be enhanced with the intervention of Science and Technology? To find out answers to these concerns, discussions were carried out with concerned people, policy makers, researchers and other stockholders. In other words participatory approach model of science communication was adopted. As an outcome of these discussions it was observed that the prevailing superstition among tribal people is a belief or practice resulting from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation. These people have a very little knowledge about health and hygiene and age old methods of treatment of diseases by unspecialized person still prevail. Obsolete methods are used for agriculture and crop cultivation and knowledge about conservation of environment is based on their wisdom and belief. They do not welcome application of any technology for the development of their socio-economic structure consequently forcing themselves to become laborers in order to earn living. It was observed that science communication

could play an important role in sensitizing and creating awareness among these people. So with the purpose of promoting and propagating scientific and rational outlook among Bhil tribe of Madhya Pradesh especially youth of bhil community, Vigyan-Prasar and Madhya Pradesh Council of Science & Technology came together to join hands for the performance of street plays in Jhabua, Alirajpur, Badwani, Dhar and Khargaun districts of M.P. This was probably first time in the history of Madhya Pradesh that street plays based on scientific themes were to be performed in a local dialect Bhili. Street play format was chosen as a medium of communication because Bhil being a song and dance loving tribe was expected to welcome this gesture open heartedly. The use of drama is an educative experience for both the performers as well as the audience. Many social activists have also used the formal theatre regularly.

### **Approach for Developing Scripts**

MPCST and VP officials chalked out a strategy to run their prestigious project. As obvious, a meeting to discuss modalities of the street-plays performances was mandatory. Apart from MPCST and VP officials, NGOs working in Bhil-dominant areas, historians, experts & researchers working on the tribe, eminent and literate personalities belonging to the tribe and journalists from the region were invited to contribute with their invaluable suggestions and experience. The input provided by all the experts was regarding the discrepancies of tribe's daily lifestyle and their uplift through small gestures made by adopting scientific temperament. The outcome of the meeting was the selection of 13 scientific themes viz. What is Science, Universe, Myths and Science, Earth, Evolution of life on earth, Human-body, Diseases and human health, Home remedies and medicines, Water, Natural Phenomenon, environment, Home & Energy and Food & Security. These themes were selected on the basis of Radio scripts which were used in 13 episodes radio serial in bhili language. Later themes with similar traits were clubbed together to form 5 categories-:

- First- What is Science, Universe and Myths and Science.
- Second-Earth and Evolution of life on earth.

- Third-Human-body, Diseases & human health and Home remedies & medicines.
- Fourth-Water, Natural Phenomenon and environment.
- Fifth-Home & Energy and Food & security.

### **Transformation of scripts into Drama**

It was decided that the mentioned 5 categories would be transformed into form of street plays. Our first priority was to develop concept notes for the selected themes. Experts, who had a deep know-how about tribe, helped in developing concept notes. Consequently a meeting was held to discuss and finalize concept notes which were then given to script writer for dramatization. Initially all the drama scripts were written in Hindi. Scripts were read out in front of experts and were open to suggestions and criticism. Content of the drama scripts was reviewed by experts. All the scientifically correct Hindi scripts were sent for transformation to street plays.

Our second panel of experts was from theatre world. Eminent play directors and actors from NSD and FTTI were invited to give their valuable inputs. First thing those experts decided was that the duration of plays not to exceed 20 minutes? Secondly to make the performances catchy, lot of tribal dance and music elements had to be incorporated in the plays. Lastly, a dress code was decided for all the artists so that they could always stand out of crowd. Once the adaptation was Okayed as appropriate for street plays, the plays' scripts were given for translation to Bhili dialect. Since it was a matter of science, it was very necessary for a translator to maintain the flavor of drama without losing the authenticity of Science.

### **Performances of Nukkad Nattak**

Primarily a research was done to fix the spots where street plays could be performed. Our aim was to target places and occasions when people were present in large number. After field research it was found the people gathered in large number at the time of weekly haat bazaars, maveshi-mela, Bhagoria(gathering at the time of Holi festival) and antyodaya

mela(M.P. Govt's schemes). Taking into consideration all the events, total number of gatherings covering all five bhil-districts turned out to be 80. If all the five plays were to be performed to cover the entire population of 5 districts then total number of performances had to be 400.

Culturally rich bhil tribe has no dearth of artists. After an audition, a team of around 30 artists was selected to perform street plays in five bhili districts. 30 artists were divided in five teams and each team comprising of 6 artists was allocated one play. A workshop to train the artists was held under the supervision of eminent theatre directors and actors from Madhya Pradesh. Five different teams along with their musicians and singers were ready to perform five different plays.

A performance certificate was provided to each group. This certificate had certain information to be filled in, like name of village, block and district where performance had taken place, Number of viewers and their comments about the play. The performance certificate had to be verified by a govt. servant or any eminent personality of the village. Those who could verify the performance certificate included Principal of village school, Gram Sarpanch, Aanganwadi karyakarta etc. This certificate was to be used as tool to check the authenticity of performance. After completion of a play the team had to fill and get it verified by the authoritative person. These certificates were then submitted to the group leader coordinating with 5 teams and MPCST official. This form also had a column for viewers' comments.

### **Response and Result**

It was observed that audience unanimously applauded all the performances. About more than 90% people thought that the show was interesting. Some of them had shown their curiosity by asking questions related to the subjects, which proved that they found it useful. Village Sarpanch reportedly appreciated these shows and wished to have some more programs of the type for the benefit of villagers. More than 90 % of the village heads said that the show was enjoyed by all the people all the time. 92% of the viewers said that their children learned a lot and 68% said that now on they expected their children to approach science and technology with more enthusiasm. 84% of the viewers

said they considered Floating Point's follow up work either very useful or a good source of ideas.

### **Conclusion:**

Success of Nuukad –Natak performances in Bhil region proved that the dance, music and drama have always been and still are the most powerful modes of communication. This becomes more significant when the dialect of the format happens to be one's own. Participation of Bhil artists in these performances was welcomed by the local audience and they could easily relate themselves with the shows. Inference is that methods of communication should be democratic in approach i.e. by the local people, of the local people and for the local people. No matter how difficult the subject is, if told in simple and interesting way, it is bound to reach the target audience. It is high time we realized that education should not remain confined to school buildings. Whenever and wherever possible, opportunities to educate people should be availed by all sects of society. Last but not the least every fun activity can be converted to education tool if little thinking is applied behind it.

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