

Indian Earthquake Zone-4 & G.R. Irlapati'S Geoscope

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Abstract: This zone is called the High Damage Risk Zone and covers areas liable to MSK VIII. The IS code assigns zone factor of 0.24 for Zone 4 Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, the parts of Indo-Gangetic plains (North Punjab, Chandigarh, Western Uttar Pradesh, Terai, North Bengal, Sundarbans) and the capital of the country Delhi fall in Zone 4. In Maharashtra, the Patan area (Koyanagar) is also in zone no-4. In Bihar the northern part of the state like Raxaul, Near the border of India and Nepal, is also in zone no-4. Let us study about the exploitation of Indian cities and towns highly vulnerable to earthquakes and the methods of studying Indian cities and towns highly vulnerable to earthquakes in this paper. I have conducted many researches on the Indian cities and towns highly vulnerable to earthquakes and invented the geoscope which is very useful in studying the Indian cities and towns highly vulnerable to earthquakes and also can help to study, forecast and mitigate geological hazards including the earth quakes and its secondary consequent hazards 24 hours in advance.

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Key Words: G.R. Irlapati's Geoscope, Earth Quakes, Local, Regional, Central Geoscope Centers: Simple, Homemade, Micro Geoscope Centers: Seismic luminescence studies, Electrogeopluse study etc.

Introduction:

The branches of Earth Science include, geology, oceanography, astronomy, and meteorology. Meteorology means the study of climate, astronomy is the study of the solar system, oceanography is the study of the ocean, and geology is the study of the earth.

1. Geology - study of the solid matter that makes up the earth, its origin, composition, structure and history. it is divided into several branches:

- a. mineralogy - study of minerals
- b. petrology - rocks
- c. stratigraphy - deposition of successive beds of sedimentary rocks
- d. palaeontology - fossils
- e. tectonics - deformation and movement of earth's crust
- f. geophysics - using physics to study earth's surface, interior and atmosphere.

g. geochemistry - science of chemistry as it applied to geology

2. Meteorology - scientific observation and study of the atmosphere so that weather can accurately forecast

3. Oceanography - study of water movements-currents, waves and tides

4. Astronomy - study of physical things beyond the earth.

A natural disaster is a major adverse event resulting from natural process of the earth. A Geological Hazards is one of several types of adverse geologic conditions capable of causing damage or loss

of property and life. These hazards consists of sudden phenomena and slow phenomena.

Sudden Phenomena:

01. Avalanches: Snow, Rock or air and snow and its run out.

02. Earth Quakes and earth Quakes – Triggered phenomena such as tsunamis.

03. Forest fires and leading to deforestation.

04. Geomagnetic Storms.

05. Ice Jams on rivers or glacial lake out burst floods below a glacier.

06. Landslides lateral displacement of earth material on a slope or hill slide.

07. Mudflows, avalanche – like muddy flow of soft or wet soil and sediment materials, narrow landslides.

08. Pyroclastic flows.

09. Rock falls, Rock slides, Rock avalanches and debris flows.

10. Torrents like flash floods, rapid floods, heavy current creeks with irregular course.

11. Volcanic eruptions, lahars and ash falls.

Slow Phenomena:

01. Alluvial fans like at the exit of canyons or slide valleys.

02. Caldera development like volcanoes.

03. Geyser deposits.

04. Ground settlement due to consolidation of compressible soils due to collapsable soils.

05. Ground subsidence, sags and sink holes.

06. Liquefaction, settlement of the ground in areas underlain by loose saturated sand / slit

during an earthquake events.

07. Sand dune migration.

08. Shoreline and stram erosian.

09. Thermal springs.

Geological Hazards and disasters, however, still inflict a major economic and social cost. I have conducted many studies on the Geological Hazards and invented the Geoscope which can held to predict the Geological Hazards in advance.

An earthquake (also known as a quake, tremor or temblor) is the shaking of the surface of the Earth, resulting from the sudden release of energy in the Earth's lithosphere that creates seismic waves. Earthquakes can range in size from those that are so weak that they cannot be felt to those violent enough to toss people around and destroy whole cities. The seismicity or seismic activity of an area refers to the frequency, type and size of earthquakes experienced over a period of time. At the Earth's surface, earthquakes manifest themselves by shaking and sometimes displacement of the ground. When the epicenter of a large earthquake is located offshore, the seabed may be displaced sufficiently to cause a tsunami. Earthquakes can also trigger landslides, and occasionally volcanic activity. In its most general sense, the word *earthquake* is used to describe any seismic event — whether natural or caused by humans — that generates seismic waves. Earthquakes are caused mostly by rupture of geological faults, but also by other events such as volcanic activity, landslides, mine blasts, and nuclear tests. An earthquake's point of initial rupture is called its focus or hypocenter. The epicenter is the point at ground level directly above the hypocenter.

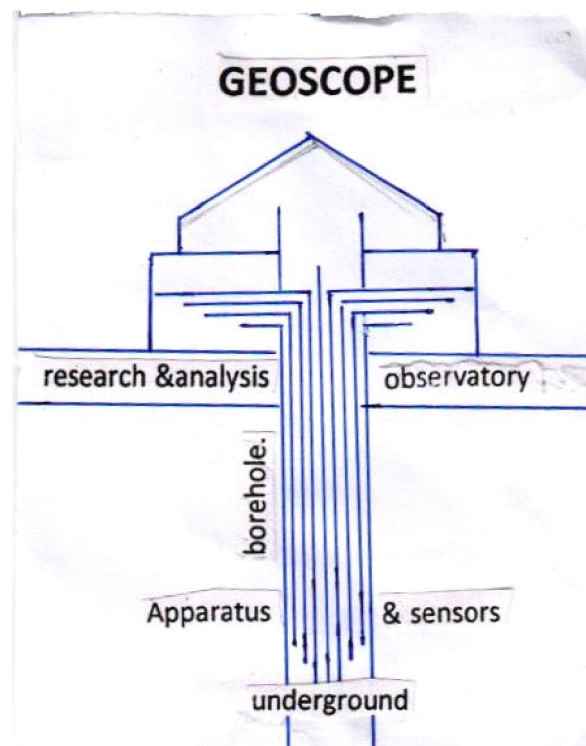
Construction: Geoscope means- a mechanical architecture established in between the underground and observatory with the help of bore-well proposed for conducting geological studies to know the earthquakes, ores and water currents etc.

A borehole having suitable width and depth has to be dug. An observatory having research & analysis facilities has to be constructed on the borehole Apparatus & sensors to recognize the geo- physical and geo-chemical changes generated in the underground such as foreshocks, chemical changes, electrogeopulses, micro-vibrations, pressure, geomagnetic forces etc should be inserted into the underground and linked with the concerned analysis sections of the observatory that is above the ground to study the changes taking place in the underground.

That means-relative results of geological & geographical researches & developments of past, present and future should be interposed, coordinated and constantly developed. The apparatus related to the geology and geography such as Richter scale etc also should be set in the observatories of the Geoscope. we

can make many more modern ideas & modifications thus bringing many more improvements & developments in the Geoscope.

Many kinds of super high remote sensing technology in the area of sensor physics, signal processing used specially image processing, electromagnetic detection technology etc should be used in the Geoscope. Geophysical deep underground detectors and mineral exploration equipments, natural gas sensors etc should be used in the Geoscope. Electromagnetic sensors may also be used in the Geoscope project.



Country-Wise National Geoscope Projects:

I have also proposed about 200 country-wise National Geoscope Projects for all the world countries.

National Geoscope Project:

Many extensive researches were conducted on the national geoscopic forewarning system to detect the geological changes in advance. In this system, there should be established three level centers i.e., Local Geoscope Centre, Regional Geoscope Centre and Central Geoscope Centre for maintaining the system in a coordinated manner.

Local Geoscope Centre: One or more required number of Geoscopes should be established in the expected earthquake zones. The observation personnel in the respective Geoscopes should watch the onset of earthquakes day and night.

Regional Geoscope Centre: There should be established a Regional Geoscopic Centre at every expected quake zone to co-ordinate and codify the information supplied by the local geoscopic centers of the zone.

Central Geoscope Centre: There should be established a Central Geoscopic Centre to co-ordinate and codify the information supplied by the Regional Geoscopic Centers from all over country in a coordinated manner.

Performance: Whenever a Local Geoscopic Centre sends warning about the onset of earthquakes, the observation personal should immediately send the information to its Regional Geoscopic Centre. The Regional Geoscopic Centre should analysis the information and send it to the Central Geoscopic Centre. The Central Geoscope Centre analyze the information supplied by the Local Geoscopic Centers, Regional Geoscopic Centers and estimates the epicenter, time, area to be affected urban places etc., details of the impending earthquake and send to the authorities, and media and warnings in advance to take precautions.

Types Of Geoscope Models:

Simple Geoscope: This is a simple construction involving no expenditure. A deep well having suitable width and depth has to be dug. Construct a room over the well. Wash the inner walls of the room with white Lime. Fix an ordinary electric bulb in the room.

Home Made Geoscope: This construction involves no expenditure. Even students, children's and science enthusiasts can make the Home-Made Geoscope and detect the earth-quakes 24 to 28 hrs in advance. By making certain changes and alterations, the house having a well can be converted into a Geoscope i.e., wash the inner walls of the house with white Lime. Fix ordinary electric bulbs in the room.

Performance: Observe the colour of the room lighting daily. When the bulb glows, the light in room generally appears white in color, but before occurrence of an earth-quake, the room lighting turns blue in colour. The onset of earth-quake can be guessed by this "Seismic luminescence Emission".

Principle: Due to stress of continental plates and some other reasons on a place where there are favorable chances for earth-quake to occur, the pressure is induced in the underground. As a result, there is a steady rise in the pressure around the focus centre. Because of the large disparity in the magnitude of energies involved, gas anomalies such as (a) Helium emission (b) chemico seismic anomalies of sulphur, calcium, nitrogen etc., chemical compounds (c) seismic atomic radiations of radioactive mineral compounds show up much earlier even at large distance from the epic-centre which enter the well through the underground springs. These gas anomalies

occupy the room in this manner; emit radiation which gives blue colour (some times red) to the room.

Micro Geoscope: Micro-Geoscope is an elaborate construction. For this model a deep bore-well having suitable width and depth has to be dug. An observatory having the most modern high-technological research facilities has to be constructed on that well. Most modern mechanical systems like electronic, physical and chemical sensors and apparatus to recognize the rise and fall of the underground water levels, micro-vibrations and waves generated in the underground, differences in pressure, temperature and other seismic activities should be inserted into the underground and linked with the concerned research analyzing departments of the observatory that is above the well to observe the seismic changes taking place in the underground. The results of researches on the quakes like Richter scale etc., also should be setup in the Geoscope. That means relative results of past, present and future pertaining to the earthquakes or seismic researches should be interposed, co-ordinate, and constantly developed. We can make many more changes thus bringing many more developments in the geoscope.

Observe the geophysical & geochemical changes such as foreshocks, chemical changes, ground water levels, strain in rocks, thermal anomalies, fractoluminescence's gas anomalies, electrogeopulses, micro-vibrations, pressure, geomagnetic forces, etc taking place in the underground. The onset of earthquakes can be guessed by observing the aforesaid changes in the concerned analyzing departments of the observatory.

Studies: Geoscope should be designed to do researches, studies or to learn a specified subject. For example, I have designed Geoscope in two types proposed to study the earth's underground radiations and second one is to scan the earth's underground's waves through the Geoscope by which we can predict the earthquakes 6 to 24 hours in advance.

Seismic Luminescence Study:

This is a very easy and simple study in the Geoscope Project. Construct a room over a well having suitable width and depth. Wash the inner walls of the room with white lime. Fix an ordinary electric bulb in the room. (Otherwise by making certain changes and alternations any home or office having a well can be converted into the Geoscope. Wash the inner walls of the house with white lime. Fix an ordinary electric bulb but don't fix fluorescent lamp in the house. This method involves no expenditure).

Observe the colour of the lightning in the Geoscope room daily 24 hours 365 days. When the bulb glows, the lightning in the room generally appears as white (reddish). But before occurrence of

an earth-quake, the room lightning turns violet in colour.

Because, before occurring of an earthquake-gas anomalies such as radon, helium, hydrogen and chemico-mineral evaporations such as sulphur, calcium, nitrogen and other fracto-luminescence radiations show up earlier even at large distances from the epicenter due to stress, disturbances, shock waves and fluctuations in the underground forces. These gas anomalies & fracto luminescence radiations and other chemical evaporations enter into the well through the underground springs. When these anomalies occupy the room above the well, the room lighting turns violet in colour. The light in the room scattered in the presence of these gas anomalies, fracto-luminescence radiations and other chemico-mineral evaporations the ultra violet radiation is emitted more and the room lighting turns in violet colour. Our eye catches these variations in the radiation of the lighting in the room easily since_

- The violet rays having smaller wave length.
- The violet radiation having property of extending greatly.
- The light becoming weak in the violet region.
- The eyes having greater sensitivity to violet radiation.

Due to all reasons the room may appear violet in colour then we can predict the impending earth quakes 12 hours in advance.

Electro Geopulses Study:

This is also easy study to recognize the impending earth quake. A borehole having suitable width and depth has to be dug. An earth wire or rod should be inserted into the underground by the borehole and linked with the concerned analysis section having apparatus to detect, compare measure of the electric currents of the electric circuit of the earth systems. Otherwise by observing the home electric fans. etc. We can also study the electrogeopulses studies to predict the impending earth quake.

Observe the changes in the electric currents of the earth system 24 hours, 365 days. From a power station, the electricity is distributed to the far-off places. Normally the circuit of the power supply being completed through the earth system. Whenever if the disturbances occurs in the layers of the earth's underground, the fluctuation rate will be more due to the earth quake obstructions such as pressure, faults, vibrations, water currents etc., of the earth's underground. So we can forecast the impending earth quake by observing the obstruction of electric currents of circuit of the earth system in the observatory of the Geoscope and also by the obstruction sounds in the electric fans etc.

Experiments Carriedout:

I have carried out a number of experiments on the Geoscope project and all were successfully proved out in practice. The risk of earthquakes in Andhra Pradesh is less but the source is greater in north India and other regions in the world where the establishment of the geoscope is very useful.

Uses: By setting up the National Geoscope Project and maintain, the country can be predicted the impending earthquakes, volcanic hazards (and storm surges, tsunamis etc consequence secondary hazards due to the earthquakes occur in the womb that means underground of the sea or ocean if the country have the chances of occurring of these disasters) in advance. And also the country can be predicted mineral and underground resources by inserting many kinds of super high remote sensing technology in the area of sensor physics, signal processing used specially image processing, electromagnetic detection technology and geophysical deep underground detectors and mineral exploration equipments, natural gas sensors etc in the underground through the Geoscope. Setting up the National Geoscope Project and maintain will also be useful in emerging industries such as geothermal and geo-sequestration etc.

Hazard Detection Method: And also we can find out many more secrets of the underground by keen study of the Geoscope.

For example, build Geoscope in the seismic areas and earthquakes can be predicted by virtue of performing studies as described above.

Another example, build Geoscope in the coastal areas of the sea and earthquakes and its consequent secondary hazards such as tidal forces, rogue waves, tsunami can be predicted by virtue of performing studies as described above.

Furthermore example, build Geoscope in the possible areas where land slides are likely to occur and the earthquakes and it secondary consequent hazards such as land slides mud slides, mass movements, sink holes, coastal erosion, lahar, mud flows, etc can be estimated by virtue of performing studies as described above.

One more example, build Geoscope in the volcano areas and volcanic activities such as volcanic gases, steam generated eruptions, explosive eruption of high – silica lava, effusive eruption of low-silica lava, debris flow and carbon dioxide emission etc can be predicted by virtue of performing studies as described above.

These are some examples only. We can find out many more secrets of a country weather conditions by keen study of its monsoon time scale.

Conclusion:

We can make many more researches on the geoscope thus bringing many more developments, modifications and improvements in the geoscope.

History: During the years of 1980-86, he has conducted many researches with an ideal to invent a device that should be used to predict the geological hazards such as earthquakes and solve the mysteries such as mineral and water resources of the underground in advance. The Geoscope researches were completed in 1986 and the invention of Geoscope was presented to the Hon'ble A.J.V.B.M. Rao, Member of Parliament (L.S.), Amalapuram Constituency for consideration. After consideration in 1987, Sri A.J.V.B.M. Rao met the Hon'ble Minister of State for science and technology, New Delhi (later President of India) personally presented the Geoscope invention for further research and development in the services of welfare of the people. Sri K.R.Narayanan was issued orders to the C.S.I.R. in the capacity of Vice-President of Council of Scientific and Industrial Research to develop the invention Geoscope in 1988. In 1989, the Hon'ble High Court of Andhra Pradesh was also issued orders to the Government of India, Ministry of science & Technology, Council of Scientific and Industrial Research to provide research facilities to carryout the experiments on the Geoscope at National Geophysical Research Institute, Hyderabad for Implementation in the service of the country. He submitted many representations to the government and research Organizations for providing research facilities for further researches on the Geoscope but the government and research organizations did not encourage and provide research opportunities to him. He was envied by Research Institutes, scientists and subjected to incessant verbal insults. National and international magazines have published articles, comments, news items on the Geoscope. He sacrificed his life for the past 46 years in inventing the Geoscope to serve the world people from the earthquakes. But he is an unfortunate scientist who could not get recognition as the inventor of Geoscope. His home country did not recognize him. His appeal does not reach the international communities. He is now making his life's last journey due to pains and poverty & disregard and despair. Under the aforesaid circumstance he is making his appeal to the world scientists to recognize him as the inventor of the Geoscope.

Biography: Born on 25, May, 1958 at Merlapalem Village in India to pullaiah irlapati and manikyam irlapati. He has acquired all sciences inherently by birth. However, he completed his primary classes 1 to 5 in elementary school, Merlapalem (1963-1968), upper primary classes 6 & 7 in upper primary school, Vubalanka (1969-1971), High School classes 8 to 10 in Zilla Parishad High school, Ravulapalem (1971-1974), and junior college education 11 & 12 in Mahatma junior college, Atryapuram (1974-1976). He did his graduation B.A in economic sciences etc in

Andhra university (1985-1989) and post graduation M.Sc in disaster mitigation sciences in Sikkim Manipal University, Gangtok (2001-2003). He was honored with M.Phil (2006) for his researches on world weather and disaster sciences & its forecasting methods and mitigation measures, Ph.D (2010) for his researches on world weather changes and natural hazards & its forecasting methods & mitigation measures and D.Sc. (2015) for his researches on the global monsoons & its effects on weather changes and natural calamities.

He is a science enthusiast and experimenter with an ideal to serve the people from the weather changes and natural hazards and submitted many representations to the government research organizations for providing research facilities but the government and research organizations did not encourage and provide research opportunities to him. He was envied by Research Institutes, scientists and subjected to incessant verbal insults. He built a lab at his house with available apparatus and books and conducted thousands of researches on weather problems and natural calamities and made hundreds of research papers on weather problems and natural hazards. He invented the Lisposcope, Biolumicells and Bio-forecast In 1967. proposed A New Hypothetical Model of Cosmolgy in 1977. designed the Geoscope in 1989. invented the Indian Monsoon Time Scale in 1991. Mainly he did a lot of work into the design of the Global Monsoon Time Scales and Geoscope projects for the various regions of the world.

However much efforts did tho, he could not get recognition either by government or by society moreover ridiculed and subjected in many ways. Mainly the revolutionary and rational concepts about the cosmology were instantly criticized and exposed to the anger of superstitious, got into violent altercations. He was arrested, tortured and imprisoned. Research organizations and Officials were humiliated him in different ways. His efforts have been criticized. Political recommendations, officials support, publicity, region, religion, cash and community factors may influence in giving recognition, awards, rewards, honor and fame to dalit scientists in India. He is a victim of negligence. racism and discrimination. Now he is in severe crisis, making his life's last journey due to pains & poverty and disregard & despair.

References:

1. Aithabathula Jogeswara Venkata Buchi Maheswara Rao, Member of Parliament (Loksabha), Amalapuram letter dt:08/12/1987.
2. K.R. Narayanan, Minister of state, Science & Technology, Government of India, letter dt:09/12/1988.
3. G.S.Rao, MLA letter dt:1988.

4. N.T. Rama Rao, Chief Minister of Andhra Pradesh, letter dt:30/01/1989.
 5. Order, Hon'ble High Court of Andhra Pradesh W.P. No.12355/1989, dt:06/09/1989.
 6. G.R. Iralapati, Geoscope, Science promoter, June-July, 1995 (41).
 7. G.R. Iralapati, Geoscope, Science promoter, June-July, 1995 (43).
 8. G.R. Iralapati, Geoscope, Andhra Pradesh, Nov.1994, 31-36.
 9. G.R. Iralapati, Geoscope, Geoscope Project (National Geoscope Forecasting System), Kisan world, May-2002.
 10. News Story on Geoscope, Eenadu, 2001 January 29.
 11. Opinion of Supreme Court Legal Services Committee dt:02/01/2006.
 12. News Story on Geoscope, NGO samacharam, January-2007.
 13. India Metrological Department, letter No.S-01416/ prediction dt:11/12/200.
1. Gangadhara Rao Iralapati. A Study On The Brazil'S Climate And Natural Disasters Brazil Monsoon Time Scale, Brazil National Geoscope Project Brazil Weather Time Scales Bioforecast & Irlapatism. *Academ Arena* 2017;9(12s): 1-32. (ISSN 1553-992X). <http://www.sciencepub.net/academia>. doi:10.7537/marsaaj0912s1701. 1.
 2. Gangadhara Rao Iralapati. Monsoon Impact On People. *Academ Arena* 2018;10(1s): 7-12. (ISSN 1553-992X). <http://www.sciencepub.net/academia>. doi:10.7537/marsaaj1001s1802. 2.
 3. Baidu. <http://www.baidu.com>. 2018.
 4. Google. <http://www.google.com>. 2018.
 5. Ma H, Cherng S. Nature of Life. *Life Science Journal* 2005;2(1):7-15.
 6. Wikipedia. The free encyclopedia. <http://en.wikipedia.org>. 2018.
 7. Marsland Press. <http://www.sciencepub.net>. 2018.
- I am therefore, to request you to arrange to issue necessary orders in this regard at an early date so as to enable the Commission to implement the same in the ensuring the Notifications.
- * *Indian eathquake zones cities -Retrieved from http://en.wikipedia.org/wiki/earthquake_zones_of_india.

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