

04:05 PM 06 JAN	SENSEX 26,759 ▼ -119.01	NIFTY 50 8,244 ▼ -30.00	GOLD (MCX) (...) 27,893 ▼ -55.0	USD/INR 67.96 -0.00	CREATE PORTF...	Download ET MARKETS APP
MARKET STATS	CHOOSE LANGUAGE ENG					

Made in India: World's first full atlas for the blind

By PTI | Updated: Jan 08, 2017, 11:37 AM IST

[Post a Comment](#)

By Pallava Bagla

TIRUPATI: Making maps available for the blind is not easy and the world's first fully mass-reproduced atlas for the blind has been made in India.

Using maps comes so very naturally to the sighted but for the millions of blind people of the world, maps were like a forbidden fruit.

To the sighted, looking up the location of the nearest coffee shop or the metro station is easy with maps now being an integral part of smartphones.

For the blind, maps were mostly inaccessible but now that is changing for the 28 million visually-handicapped people in India with the Department of Science and Technology having released an atlas tailor-made for the blind.

For the first time, blind people can get a feel of what India looks like. To the sighted, the map of India is no surprise but to a person who can't see, a map was totally inaccessible.

The solution was to make a map that could be felt rather than be seen. In most blind people the tactile sensation is accentuated to compensate for the loss of sight.

The National Atlas and Thematic Mapping Organisation (NATMO) of Kolkata after years of effort made this unique atlas. Here the map outlines are raised and embossed on paper using silk screen printing so that the blind can feel them and it is called a braille atlas.

According to Prithvish Nag, former Surveyor General of India and currently Vice Chancellor of the Mahatma Gandhi Kashi Vidyapeeth, Varanasi, "This is the first full atlas for the blind in the world."

Speaking of other global initiatives, he says most other efforts in the world have been to make individual-tactile maps but to make a full atlas which can be mass produced, this Indian effort that started under his leadership, is really one-of-its-kind in the world.

On January 3, at the Indian Science Congress held here, Prime Minister Narendra Modi presented the director of NATMO, Tapti Banerjee with the 'National Award for Science and Technology Intervention in Empowering the Physically Challenged' in recognition of this achievement.

Speaking to some 11,000 scientists here, Modi said, "On the lines of Corporate Social Responsibility, the concept of Scientific Social Responsibility needs to be inculcated to connect our leading institutions to all stakeholders, including schools and colleges. We must create an environment for sharing of ideas and resources."

This braille atlas is one such activity which will help the Devyang, as the Prime Minister renamed the handicapped people some time back.

According to estimates by the Ministry of Social Justice and Empowerment, in 2015 there were over 16 million blind and 28 million visually-impaired people in India and now for the first time they can also 'visualise' maps. For people who have partial vision NATMO makes maps with accentuated colours so they can see the maps despite their low vision.

According to the [World Health Organisation](#), 285 million people are estimated to be visually impaired worldwide, of which 39 million are blind and 246 have low vision and sadly about 90 per cent of the world's visually impaired live in low-income settings.

India is home to the largest number of blind people in the world and it is an unfortunate situation since according to experts about three quarters of these are cases of avoidable blindness.

Making an atlas for the blind was very challenging, says Banerjee since the map itself has to be uncluttered as the blind feel the maps with their fingers. In addition all the names and meta data of the maps had to be accommodated in braille.



To the sighted, looking up the location of the nearest coffee shop or the metro station is easy with maps now being an integral part of smartphones. (Representative image)

The 84-page black-and-white atlas is made on oversized A-3 size paper so that all the information could be easily accommodated.

According to Banerjee the work on this project started way back in 1997 and her team members had to first master braille to make the atlas. She laments the work took so long simply because the government cut the staff strength of NATMO from a high of 500 to just 150. With an annual budget of Rs 6 crore NATMO has made as many as 2000 different normal maps available on paper.

The atlas has been prepared not only in English but also in Bengali, Gujarati and Telugu, there are 20 different basic maps that range from the political map of India, to the physical map of India to various soil types found in India.

NATMO has printed some 500 copies of the braille atlas which cost them about Rs 1000 each and these are being distributed free to all the blind schools of India.

The atlas made by NATMO is rather bulky since high quality glazed paper has been used and then using a special printing technique the raised embossing has been achieved, explains Banerjee. In the upcoming edition light weight imported paper will be used where embossing is easier to do, says Banerjee. This may make the atlas for the blind light weight and more portable.

As NATMO embraces the digital environment the next stage could be embed audio files in the braille atlas and possibly make an app that speaks to the blind using the omnipresent global positioning system or GPS signals, the hard part would be to make smart phones get that raised tactile feel on their screens which makes the blind feel and visualise the maps.

Recently, the Ministry of Social Justice had remarked that the 'visually impaired people in India are often marginalised in terms of education opportunities, career opportunities or social standing as compared to their sighted counterparts. Due to a lack of access to information, they are often unable to lead fulfilling, independent, economic and socially productive lives.'

This unique effort by NATMO at least tries to fulfil one gap of a major social need with Indian science in the service of the society.

Stay on top of business news with The Economic Times App. [Download it Now!](#)

Live Market	News	Portfolio	Mobile	Live TV	Newsletter	Commodities	Speed	QnA	Blogs	Alerts	RSS
-----------------------------	----------------------	---------------------------	------------------------	-------------------------	----------------------------	-----------------------------	-----------------------	---------------------	-----------------------	------------------------	---------------------

<p>Other Times Group news sites</p> <p>Times of India इकोनॉमिक टाइम्स ईकीनोमिक्स टाइम्स Mumbai Mirror Times Now Indiatimes नवभारत टाइम्स महाराष्ट्र टाइम्स ವಿಜಯ ಕರ್ನಾಟಕ Lifehacker Gizmodo Eisamay IGN India NavGujarat Samay</p>	<p>Living and entertainment</p> <p>Timescity iDiva Zoom Luxpresso Gaana Happy Cricbuzz Get Smartapp</p> <p>Networking</p> <p>itimes MensXP.com</p>	<p>Hot on the Web</p> <p>Budget 2017 Sensex, Nifty Live Year-End Special 2016 UP & Punjab Assembly Elections 2017 Live: Currency Demonetisation Gold Rate RBI Monetary Policy</p>	<p>Services</p> <p>ads2book Gadgetsnow Free Business Listings Simplymarry Astrospeak Timesjobs Magicbricks Zigwheels dineout Filmipop Remit2india Gaana Greetzap Techradar Google Play</p>
--	--	--	---

[About us](#) / [Advertise with us](#) / [Terms of Use & Grievance Redressal](#) / [Privacy Policy](#) / [Feedback](#) / [Sitemap](#) / [Code of Ethics](#) / / [Disclaimer](#)
 Copyright © 2016 Bennett, Coleman & Co. Ltd. All rights reserved.