

Severe Cyclone NARGIS

The severe cyclone NARGIS crossed Myanmar coast on 02 May 2008. SPARRSO scientists monitored the cyclonic movement and position round the clock using FY2C (Chinese) and NOAA (USA) satellite data received from its ground station.

NARGIS originated in the South-East Bay of Bengal adjoining South-West Bengal on 26 April 2008 as a well marked low depression. It was gradually developed and intensified into a severe cyclone and moved towards North-West direction and reached at Lat. 13.18°N and Long. 85.00°E. Later on it took an unusual change in its movement towards North-East direction.

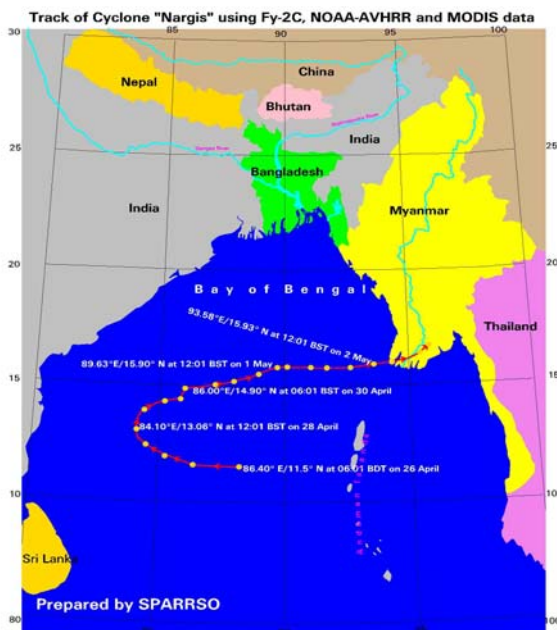


Fig.1: Track of severe cyclone NARGIS on 26 April 2008.

It moved North-West direction and turned into a deep depression on 27 April 2008. At 15:00 BDT the cyclone was at Lat. 12.05°N and Long. 84.55°E. It further intensified and turned into a deep depression on 28 April 2008. At 12:00 BDT, its center was located at Lat. 13.06°N and Long. 84.04°E. The Cyclonic Storm (NARGIS) remained stationary for a few hours and abruptly changed its direction and started to move towards North-East. On 29 April 2008 the cyclone center was at Lat. 14.64°N and Long. 85.80°E at 18:00 BDT. At this position the center of cyclone was 1065 km South-East from Chittagong Port and 982 km from Khulna.

The cyclone further intensified into a severe cyclonic storm and continuously moved in the same direction. On 30 April 2008 the position of the cyclone was located at Lat. 15.10°N and Long. 87.20°E at 16:00 BDT.

The severe cyclone NARGIS was centered near Lat. 16.00°N and Long. 90.03°E on 01 May 2008 at 15:00 BDT. The maximum wind speed around the storm center was estimated to be about 120 km/hr from 01 May (15:00 BDT) to 02 May (08:00 BDT). Maximum sustained wind speed around the storm center was about 150 km/hr. The eye of the cyclone became very distinct at hurricane stage and was further intensified. The cyclone crossed the Myanmar coast over basin on 02 May 2008 with a wind speed of about 180 km/hr at 21:00 BDT. The track of the cyclone NARGIS (Fig. 1).

Forest Cover Assessment in Bangladesh using Remote Sensing

SPARRSO recently completed the Remote Sensing Monitoring Component Project on “Strengthening Capacity to Generate Quality Information on Forest Resources in Bangladesh (TCP/BGD/3001)” in collaboration with Bangladesh Forest Department (BFD). The project was financed by Food and Agriculture Organization (FAO) and aimed to generate recent forest statistics in the country.

Fifteen Landsat Thematic Mapper (TM) scenes of 2004-2006 were procured under this project. The images were geo-referenced with previously geocoded Landsat mosaic of Bangladesh. All the scenes were mosaiced together to form a continuous image. Landuse/Land cover map was prepared by visual interpretation of different land covers and on-screen digitizing. Land covers were finally validated on the ground. The maps were printed at 1: 100 000 (national overview, Fig. 2) and 1: 1000 000 scales (details).

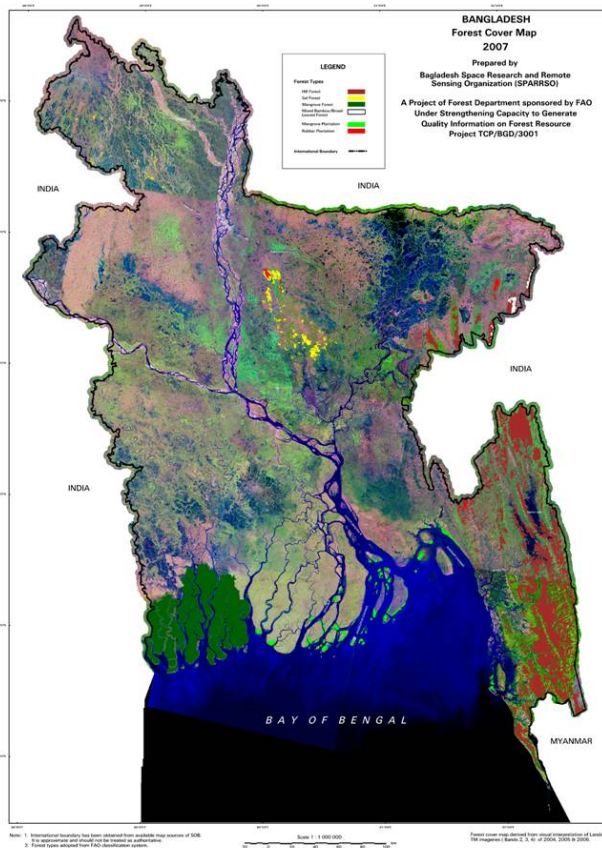


Fig.2: Forest cover map derived from visual interpretation of Landsat TM Imageries (bands 2 3 4) of 2004, 2005 and 2006.

The total forest area in Bangladesh was estimated as 1.07601 million ha (7.29%), which includes broad leaved natural forest and plantation, ‘other wooded land` (wooded land with shifting cultivation, shrubs and swamp with shrub) covers 0.92 million ha (6.22%). The remaining land cover belongs to `other land` category (urban and rural settlements with tree cover & agriculture,

tea garden, mango plantation, highway and other artificial areas) and is distributed over 11.03 million ha (74.73%). The class `inland water` (haor & baor, lakes, river and ponds) covers 1.70 million ha (11.76%) of land.

One hundred copies of National Over-view Maps and 5 national sets of detailed land use maps have been printed and supplied to BFD. The digital copies and remote-sensing data-sets were supplied to them as well for further use. Four forestry officials were trained on this activity for six months in order to strengthen the existing capacity of BFD to monitor the forest resources of Bangladesh using remote sensing technology.

The statistical result provides an alarming situation of Bangladesh where it only holds 7% of forest area. From ecological point of view any country should have at least 25% of forest coverage. This study also identified around 6% other wood lands where there is a scope of reforestation. These data-sets will also be useful to other relevant organizations e.g. Department of Agriculture, Department of Fisheries etc. of the country.

Chinese Delegates visit SPARRSO

A delegation from the Embassy of the People’s Republic of China (PRC) in Bangladesh led by Mu Yongpeng, First Secretary, Spokesman, and Chief of the Political Section and Zhang Zhizhong, Attache, Political Section called on Md. Nazmul Huda Khan, ndc, Chairman, SPARRSO at his office in Dhaka on 12 June 2008. Dr. Abdus Shahid, Chief Scientific Officer (CSO) was also present on the occasion.

During the call on they discussed matters of mutual and bilateral interest, in particular issues relating to further extension and strengthen the already existing healthy cooperation between the two countries in space technology and remote sensing. SPARRSO Chairman



Visiting delegation from the Embassy of PRC is seen discussing with SPARRSO Chairman, at later's office room, Agargaon, Dhaka on 12 June 2008.

thanked the Government of the People's Republic of China for providing SPARRSO with a "Receiving Ground Station of Fengyun Satellite Digital Video Broadcast by Satellite (DVB-S) System". This system is found to be very useful for monitoring cyclone in this region.

SPARRSO Launched EDREMOS Project

Environment, Disasters and Resources Monitoring System (EDREMOS), a 30 crore Taka project under SPARRSO was inaugurated at the SPARRSO auditorium on 26 June 2008.

The project was approved by the Executive Committee of the National Economic Council (ECNEC) on 01 March last. It is funded under Japan Debt Cancellation Fund (JDCF).

Defence Secretary Kamrul Hasan inaugurated the launching of the project formally as Chief Guest while Secretary, Public Division in the President's Office Md. Sirajul Islam was the Guest of Honour. Md. Nazmul Huda Khan, ndc, Chairman, SPARRSO and Additional Secretary to the Government of the People's Republic of Bangladesh presided over the inaugural session. Dr. Sayed Umar Khyyam, Project Director and Member (Technology), SPARRSO delivered the address of welcome. The function was attended by heads of different government departments

and high officials of the government and user service organizations, scientists and educationists from different universities besides the scientists and officials of SPARRSO.



Defence Secretary Kamrul Hasan addressing the formal launching of EDREMOS Project at SPARRSO auditorium on 26 June 2008.

The project implementation period is 2007 to 2009 fiscal year. The cardinal objective of the project is to strengthen the capacity of the organization as the national focal point for space research, remote sensing and Geographic Information System (GIS) embracing technological resource development, infrastructural development and human resource development in order to provide better services as per the chartered responsibilities of the SPARRSO Act 1991.

Defence Secretary Kamrul Hasan in his inaugural speech underscored the need for enhanced attention to the scientific and technological advancement of the country for ensuring coveted sustainable development for ameliorating the life standard of the teeming millions of the country. He envisaged upon more budgetary allocation in science and technological research and development also. He said the importance of remote sensing and GIS could hardly be over emphasized in today's world where the nature is becoming hostile and we need to best utilize our meager resources for deriving better benefit for our populace.

Secretary to the President's Office Md. Sirajul Islam in his speech lauded the activities of SPARRSO and underscored the need for further development of the organization for the benefit of the nation.

Farewells by SPARRSO

SPARRSO bade modest farewell to its Leave Preparatory to Retirement (LPR) going two colleagues. Shafiuddin Sarkar, Principal Scientific Officer (PSO) and Abdul Quddus, Security Officer have gone on LPR with effect from 29 April 2008 and 13 April 2008 respectively. They joined SPARRSO on 21 April 1983 and 28 April 1985 respectively. They have been accorded a modest farewell on 30 April 2008.

Scientists, Engineers and Staff of SPARRSO Promoted

A number of scientists, engineers and other officials of SPARRSO have recently been promoted to their respective higher posts. The promotion process was stuck-off since 1992 for some obvious reasons causing serious deterrence in scientific and development activities of the organization. The promotion process was initiated by the present Board, with a view to uphold its course of activities in right direction. The promotee officers expressed their sincere thanks to the present administration for its untiring effort in this regard.

The name and designation of the promoted officers are given below:

<u>Name and Designation</u>	<u>Promoted to the post of</u>
01. Md. Atiar Rahman, PSO	CSO
02. Md. Abul Kalam, PSO	CSO
03. Dr. Md. Jinnahul Islam, PSO	CSO
04. Dr. Md. Abdus Shahid, PSO	CSO
05. Mehrunnessa, PSO	CSO
06. Md. Fazlul Haque, SSO	PSO
07. Suraiya Begum, SSO	PSO
08. Dr. Hafizur Rahman, SSO	PSO
09. A.Z.Md. Zahedul Islam, SSO	PSO
10. Md. Mozammel Haque Sarker, SE	PSO
11. Afroza Nasreen Ahmed, SSO	PSO

12. Sukumar Dutta, AE	SE
13. S.M. Humayun Kabir, SO	SSO
14. Mirza Taherunnessa, SO	SSO
15. Dr.Md. Mahmudur Rahman, SO	SSO
16. Abdus Salam, SO	SSO
17. Nur Hossain Sharifee, SO	SSO
18. Md.Hashem Uddin, SO	SSO
19. Md. Abu Shahid, Office Supdt.	AO
20. Md. Abul Kashem Sarkar,UDA	Office Supdt.
21. Mahabbat Hossain,Office Asstt.	UDA

Training Organized by SPARRSO

As a sustained effort to promote the application of remote sensing technology in Bangladesh, SPARRSO regularly organizes various training programmes for trainees from different government organizations and educational institutions in Bangladesh. Under this programme 18 officers of Coastal Land Zoning Project of Ministry of Land, participated in the training course on "Image Processing and Analysis" conducted by SPARRSO, Dhaka from 25 to 29 May 2008. Each of the theoretical modules was followed by hands-on-training and exercises on image processing and analysis.

Another training course on "Information Communication Technology (ICT) Training" of SPARRSO personnel was also organized from 13 to 28 April 2008. Each of the theoretical module was followed by hands-on-training and exercises on ICT.

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Research Publications, Reports, Lectures,
Popular Articles etc.

Md. Abdus Salam, SO participated in the short training course on “Natural Disaster Mitigation” jointly organized by Islamic University of Technology (IUT), and United Nations Environmental Programme (UNEP) in Board Bazar, Gazipur from 11-15 May 2008.

A lecture on – “Generation of Thematic Data Layers”, given by Md. Atiar Rahman, PSO to the trainee of Coastal Land Zoning Project at SPARRSO, Dhaka on 29 May 2008.

A lecture on – “Review of the Training”, given by Dr. Abdus Shahid, PSO to the trainee of Coastal Land Zoning Project at SPARRSO, Dhaka on 29 May 2008.

A lecture on - “Demonstration of Remotely Sensed Images” given by Md. Abdus Salam, SO to the trainee of Coastal Land Zoning Project at SPARRSO, Dhaka on 26 May 2008.

A lecture on – “Global Positioning System (GPS) and Its Use in Remote Sensing and GIS”, given by Md. Nur Hossain Sharif, SO to the trainee of Coastal Land Zoning Project at SPARRSO, Dhaka on 29 May 2008.

A lecture on - “Introduction to Crop Monitoring Using Remote Sensing” by Md. Abdus Salam, SO to the students of Urban and Regional Planning Discipline, Khulna University at SPARRSO, Dhaka on 28 May 2008.

Participation of Training / Conference /
Workshop

Md. Shah Alam, PSO and Abu Mohammad, SE participated in the training course on “Remote Sensing and Digital Image Processing”, Karachi, Pakistan from 07 – 18 April 2008.

A.Z.Md. Zahedul Islam, SSO participated in the JAXA/ADRC 1st Joint Project Team Meeting (JPTM) for Sentinel Asia STEP-2, Kobe, Japan from 05 – 06 June 2008.