

## Annual Quality Assurance Report (AQAR) of the IQAC

Name of the Institution: **Birjhora Mahavidyalaya**  
**Bongaigaon**  
**Assam: 783380**

Year of Report:  
June 2009 to May 2010

**Part A:** The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year.

The quality improvement of the institution remains the focus of IQAC activity

### **Curricular aspect**

Plan of action: The college is fully committed to the proposed semester system to be introduced at the undergraduate level .The IQAC motivates all faculties for familiarization to the same. Proposal of the introduction of Scheme of Remedial Coaching at Undergraduate Level by the UGC from the coming academic session

### Outcome achieved:

- Dr. Khanindra Kr Sarma, Mr. M. Das and Dr. A. Deka attended a seminar cum workshop at Gauhati University where the modalities of the proposed semester system to be introduced in colleges affiliated to it were discussed. On their return they shared the knowledge with the college staff at a seminar held at the college premises for this purpose
- Heads of various departments downloaded the semester system syllabus and lesson plans for the same were prepared.
- Booklist of new books for the proposed semester system have been submitted to the library.
- The college contacted Prof. Khanin Pathak of I.I.T. Kharagpur in connection with holding a workshop on preparation of teaching plan and other curricular aspects at the undergraduate level. It was further proposed to extend the benefit of this workshop to surrounding colleges also.
- A coordinator Mr. Munindra Nath Thakuria, Dept. of Chemistry was appointed to ensure the smooth running of the remedial classes.

## Teaching, learning and evaluation process

Plan of action: Quality enhancement to teaching learning and evaluation process

Outcome achieved:

- A “Library Users Education” program was held at the beginning of the session for the benefit of the newly admitted B.Sc students. The orientation programme was conducted by the librarian.
- There has been increase in the use of technological tools for delivering lessons to make them more attractive to students. Continuous evaluation in the form of class tests, unit tests, quizzes and project work was carried out.
- Students’ feedback at the end of the session is collected to enhance the quality of teaching and learning.

## Research, Consultancy & Extension,

Plan of action: The IQAC motivates the faculty to involve themselves in major research projects, minor research projects and present papers at seminars in their area of specialization. The faculty members are also encouraged to pursue their doctoral studies. They are also motivated to take up extension work and community services

Outcome achieved:

Project Type	Funding agency	Status	Number
Minor Research Project	UGC	Newly Started	1
		Ongoing	-
		Completed	2
Major Research Project	UGC	Newly Started	-
		Ongoing	1
		Completed	1
Community Development Project	DRDA, Bongaigaon	Completed	1

- Five faculty members are pursuing their PhD programmes

## **Infrastructure and learning resources**

*Plan of action:* Up gradation of same

*Outcome achieved:*

- The web site of the college '[www.birjoramahavidyalaya.org](http://www.birjoramahavidyalaya.org)' has been functioning smoothly and the news letter of the college uploaded at regular intervals.
- The college had received a library grant from Government of Assam for the purchase of books and computer infrastructure which was fully utilized.
- The study centers of three open Universities IGNOU IDOL and KKHSOU are functioning within the college campus. They offer a variety of courses catering to the diverse needs of the faculty and students of the college and the people of the surrounding area. The benefit of an E learning portal [www.bodhidroom.idol.org](http://www.bodhidroom.idol.org) of IDOL has been extended to the college.

## **Organizational management aspect**

*Plan of action:* Addition to college infrastructure and up-gradation of computer skills for staff.

*Outcome achieved:*

- The college authority has submitted proposal for construction of Women's Hostel to the UGC N.E. regional office along with plan and estimate of Rs. 40 lakhs for 100% financial assistance
- Proposal sent to UGC for additional chemistry laboratory, classrooms, day care centre and ladies' toilet.
- College authority has taken steps of Fire Safety measures by installing more fire safety equipments
- Mr. B.N.Das, UDA and S.K.Roy, LDA both office personnel were sent for computer training programme coordinated by Bongaigaon treasury.

**Part B:****1. Activities reflecting the goals and objectives of the institution:**

The college which was established to fulfill the long felt need of science education in this area continues to produce quality science graduates every year. With a majority of our graduates serving as science teachers in schools in Bongaigaon and surrounding districts, science education is further spread, serving purposeful societal needs.

The college is making continuous efforts to realize the goal of providing access to higher education to the youth of this semi-urban area. As such it offers diverse programmes to suit a wide range of needs through the centres of the three Open University centres situated in the campus. The faculty of the college is fully involved in both teaching and administrative aspects of these centers in addition to their regular duties.

**2. New academic programmes initiated (UG and PG):**

A six month diploma course viz. certificate in Computer Application has been introduced as an add-on course. Three batches have completed till date.

**3. Innovations in curricular design and transaction:**

Nil

**4. Inter – disciplinary programmes started:**

- Centre for Information Technology continues to contribute to interdisciplinary activity by giving computer education including programming to students.
- Faculty members take interdepartmental classes in topics covering common areas. All faculty members take Environmental Studies classes.

**5. Examination reforms implemented:**

- A part of the examination system has been computerized.
- Regular class tests as well as the unit test system continue.
- 10% of the marks of the University examination are from the internal assessment of students which is duly carried out at the college level.

Personal interaction for the clarification of doubts and discussion of errors is held at teacher-student level.

#### **6. Candidates qualified: NET/ SLET/ GATE etc.**

Not applicable

#### **7. Initiative towards faculty development programme:**

##### Paper presentation at National and International Seminars

- Mr B K Saha presented a paper “Development and metamorphosis of an endangered frog, *Rana Leptoglossa*” (Cope ,1868) ,Assam at the National Seminar Biodiversity Spectrum of the North- East” which was held in Arya Vidyapith College, Gauhati on 18<sup>th</sup> and 19th of September '09.
- At the National Conference in Plant Physiology towards Sustainable Agriculture organized by Indian Society of Plant Physiology and held at A.A.U, Jorhat two faculty members of the dept. of Botany presented their papers. Dr. Ranu Ray spoke on “Impact of environmental stress on germination of rice (*Oryza Sativa*.L) seed and seedlings growth with particular reference to BRPL Effluent. Dr Neelanjana Baruah’s paper was on the ‘Sustainable Crop Improvement by the Application of Plant Growth Substances’.
- Mr. Munindra Nath Thakuria, Dept. of Chemistry presented a research paper entitled “Removal of Cu (II) from drinking water samples by adsorption using rice husk” in the International Congress of Chemistry and Environment, 2009 held at Ubonratchathani, Thailand from 21<sup>st</sup> to 23<sup>rd</sup> January, 2010.
- Mr B K Saha, Dept of Zoology presented a paper at a national seminar on “Assessment, conservation and value addition of Biodiversity” held at NEHU, Shillong on 22<sup>nd</sup> and 23<sup>rd</sup> of April '10.

##### Extension work

- Sri Nirmal Kumar Das, HoD, Statistics visited B.N College, Dhubri, on 30<sup>th</sup> June 2009 as resource person in connection with a workshop on “Open and Distance Learning”. The theme of the workshop was “Open-Distance Learning- a need of the present day society”

- Dr Khanindra Kumar Sarma, HoD, Physics and Sri Manabendra Das, HoD, Mathematics Dept. delivered a few lectures as extension activity during the month of July, 2009 at Kokrajhar, Barpeta and Bongaigaon for creating awareness among the public about total solar eclipse of 22<sup>nd</sup> July, 2009.
- Mr. Hemanta Kumar Saud, lecturer, Dept of Economics delivered a lecture on “Protection of Environment and Waste Land development” at a national integration camp which was attended by more than 150 youths from Jammu & Kashmir, Sikkim, West Bengal, Manipur and Assam.

#### Publications

- Dr O. P. Sah, Department of Physics has published one research paper namely “Non-linear excitations of kinetic Alfvén waves in electron-positron plasmas” in the journal “*Physics of Plasmas*” an international journal of American Institute of Physics, USA. This paper has been published by the author as a part of an UGC sponsored ongoing major research project in the department of Physics of this college.
- M.N. Thakuria, Department of Chemistry has published a research paper “A study on Municipal solid waste management in Bongaigaon, Assam” in the journal *Nature Environment and Pollution Technology*, in Dec, 2009.
- P Chakravarty has published a research paper “Removal of lead (ii) from aqueous solution using heartwood of Areca catechu powder in *Desalination*”, an Elsevier publication in June 2010.
- P Chakravarty has published a research paper “Biosorption of Cadmium (ii) from aqueous solution using heartwood powder of Areca catechu in *Chemical Engineering journal*”, an Elsevier publication in September 2010.
- Dr. K. K. Sarma HoD, Physics has written a book “*Fifty years of space age*” published by the Assam Publication Board, Assam
- Dr Ananta Borah, lecturer in Botany is the joint author of a book “*Asomor udbhid aru chora*” (Plants and Birds of Assam) published by Tezpur University.

### Fellowship Obtained

- Paresh Chakravarty, Department of Chemistry has availed of the fellowship under Faculty Improvement Programme of UGC and is presently on leave from August'08.
- Balen Choudhury, Department of Physics joined Gauhati University as a research fellow in March'08 for two years under Faculty Improvement Programme of UGC.

### **8. Total number of seminars / workshops conducted:**

- A day long workshop of principals of different colleges of the western part of Assam was held on 15<sup>th</sup> May, 2009 in the college premises. Matters related to affiliation, examination, Govt. concurrence, non allotment of sanctioned posts of both teaching non allotment of sanctioned posts of both teaching and non teaching, service rule etc were discussed.
- Dr. A. Rahmani , Director B.N.H.S visited the college on 23<sup>rd</sup> June 2009 and gave a talk on the importance of ecotourism with special reference to bird tourism and the environmental, social and economic consequences of it.
- In keeping with the "**International year of Astronomy**" a seminar on total solar eclipse was arranged by the Dept of Physics in collaboration with Pragjyotish Amateur Astronomers association, Gauhati on 27<sup>th</sup> June, 2009.
- On 28<sup>th</sup> August, 2009 a team of medical experts from Brahma Kumaris Ishwariya Vishwa-Vidyalaya, Mount Abu paid a visit to the college as a part of their campaign **My India, Healthy India**.
- Prof. Khanin Pathak of Mining Engineering Department, IIT Kharagpur paid a visit to Birjhora Mahavidyalaya on 18th November. He gave a seminar talk on —"Global Warming,CO<sub>2</sub> and Research Needs"

- A seminar on Environmental Studies was held on 19<sup>th</sup> May 2010. Mrs H B R Barman and Mrs A Mech spoke on the occasion followed by an interactive session.

#### 9. Research projects

Project Type	Faculty	Name of Project	Status
Minor Research Project	Dr Ranu Roy	A Study on the different varieties of rice plant cultivated in Bongaigaon area of Bongaigaon district, Assam.	Newly Started
	Mr. B. K. Saha		Completed
	M N Thakuria	An investigation of drinking water in and around high risk areas of Dhaligaon, BTAD	
Major Research Project	Dr D Deka	Physico-chemical characterization of oils from different oil producing plants of Northeast India	Ongoing
	Dr O P Sah	Investigation of non-linear kinetic Alfven wave structure in Plasma.	Completed
Community Development Project	Mr H Saud	Alternative livelihood development for rural people of Shankarghola and Panchagaon of Bongaigaon district	Completed

#### 10. Patents generated, if any:

Nil

#### 11. New collaborative research programmes:

Nil

#### 12. Research grants received from various agencies:

- Dr. R Roy received a sum of Rs 1, 60,000 as a research grant under MRP scheme of UGC.

### 13. Details of research scholars:

#### Present Teachers Engaged in Ph-D programme

SN	Name	Department	Topic of the research	Progress
1	Paresh Chakraborty	Chemistry	Biochemical analysis of some wild medicinal plants of Bongaigaon district	Completed final registration
2	Mrs. A. Mech	Mathematics	A study of mathematics education at school level with special reference to Undivided Bongaigaon district	Preparation of final draft of thesis
3	Biplab Kr. Saha	Zoology	Breeding Biology of an endangered Frog, <i>Rana leptoglossa</i>	Preparation of final draft of thesis
4	M. N. Thakuria	Chemistry	A study on drinking water quality of Chirang District, BTAD, Assam with reference to Physico-chemical & Bacteriological properties, its environmental remediation, application geolites & solids	Preparation of final draft of thesis
5	B. Choudhury	Physics	Solitary waves in Plasma	Ongoing

### 14. Citation index of faculty members and impact factor

Name	Dept	Citation Index	Impact Factor
P Chakravarty	Chemistry	4	2.034
P Chakravarty	Chemistry		2.918

### 15. Honours /Awards to the faculty:

Nil

### 16. Internal resources generated:

- Through the admission in the PGDCA diploma and I.T. course ,total resources generated = Rs 2,74,994 /- (Rupees Two Lakh Seventy four Thousand Nine hundred ninety four only)

**17. Details of departments getting SAP, COSIST (ASSIST) / DST. FIST etc. assistance / recognition:**

Nil

**18. Community services:**

Mr Hemanta Kumar Saud, Lecturer , Dept of Economics had extended his services as external monitor (Polio) for SIA January and February 2010 in Goalpara and Barpeta district. This responsibility was entrusted to him by W .H.O, NPSP Unit, Bongaigaon.

**19. Teachers and officers newly recruited**

Nil

**20. Teaching – Non – teaching staff ratio:**

25:13

**21. Improvements in the library services:**

- Internet connection extended to faculty and students.
- Data entry of books till date in library completed using SOUL software.
- Collection and preservation of publications of college faculty.

**22. New books / journals subscribed and their value:**

*New books added*

Total No of Books-	153
Value of Books-	Rs. 7568/-

*Expenditure*

Journal-	Rs. 1583/-
<u>Periodicals</u>	<u>Rs. 4153/-</u>
Total	Rs. 5736/-
<u>News Paper</u>	<u>Rs. 4700/-</u>
Grand Total	Rs. 18,004/-

**23. Courses in which student assessment of teachers is introduced and the action taken on student feedback:**

All undergraduate courses

**.24. Unit cost of education:**

[Unit Cost = Total annual expenditure in budget (actual) divided by the number of students enrolled.]

Total expenditure during this period including the salary = Rs1,66,19,583.00

Total no. of students enrolled during this period = 282

Unit cost of education (**Including** the salary component) = Rs.58,934.69/-

Unit cost of education (**excluding** the salary component) = Rs. 7,898.82/-

**25. Computerization of administration and the process of admissions and examination results, issue of certificate:**

Internal Examination system has been partially computerized. Computerization of the other component of the college is in progress.

**26. Increase in infrastructural facilities:**

- Fire Safety measures have been updated by installing more fire safety equipments
- Work on Women's Hostel in progress.
- Regular up-gradation of Laboratory equipment
- Increase in number of computers.

**27. Technology up gradation**

- Increase in Number of Computers.
- Uploading of Newsletter DAWN in website.

**28. Computer and internet access and training to teachers and students**

- Almost all the teachers have basic computer knowledge
- Teachers and students can access internet facility in the library
- For any computer related course work including programming, the centre for Information Technology provides assistance to the students.

**29. Financial aid to students:**

- State and National scholarships were offered to the students of ST/SC/OBC categories

- Financial aid offered to ST/SC/OBC(Non creamy layer)/Physically handicapped/ economically weak students of the college from UGC
- Rail Travel concession facility is availed by the students.

**30. Activities and support from the Alumni Association:**

Alumni maintain contact with teachers and students with particular reference to extension activities

**31. Activities and support from the Parent – Teacher Association:**

Nil.

**32. Health services:**

**33. Performance in sports activities:**

Inter class/department football match arranged

Inter class/department Cricket match arranged

Annual sports festival

**34. Incentives to outstanding sports person:**

No outstanding sports person (representing state/national level) could be identified during the session.

**35. Student achievements and awards:**

- Ms Arpita Dey of 2<sup>nd</sup> year Zoology Major for coming 1<sup>st</sup> in the inter college seminar sponsored by UNDP as part of the project “Strengthening State Plans for Human Development.” held in Bongaigaon college. Her topic was “Woman empowerment and the Idea of a just society”
- Dhiraj Singh for winning the second prize in essay writing competition organized by LIC, Bongaigaon, during Insurance week celebration. The topic was “How LIC has transformed our lives”.

**37. Placement services provided to students:**

Nil.

**38. Development programmes for non – teaching staff:**

Up gradation of computer skills

**39. Healthy practices of the institution:**

- The college encourages the engagement of teachers/departments in research work
- Introducing students to research methodology for student project of

Environmental studies.

- Motivating students to take part in extra-curricular activities within and outside the campus.
- 'Thought for the day' board is maintained.

**40. Linkages developed with National / International, academic / Research bodies:**

Nil

**41. Any other relevant information the institution wishes to add:**

The founder principal of the college Dr Mrigen Das retired on 30<sup>th</sup> of April .He handed over formal charge to the new principal in charge Dr K. K. Sarma.

The college family felicitated and bid farewell to Dr Mrigen Das at a formal public function on 4<sup>th</sup> of May 2010.

**Part C: Detail the plans of the institution for the next year:**

**(For the year 2010-11)**

- Increase in the use of technological tools for teaching-learning
- Orientation of college staff (teaching and non teaching) for the semester system.
- Encouraging research practices for student and teachers..
- Increase in infrastructure facilities
- Up gradation of Career Counseling cell

(Dr. Amal Kumar Deka)

(Dr. Khanindra Kumar Sarma)

*Name & Signature of the Coordinator, IQAC*

*Name & Signature of the Chairperson, IQAC*