Project Completion Report

Tenure of the Project: 16/6/2014 – 15/8/2016 (2 years & extended 2 months)

National Council for Science and Technology Communication (NCSTC) DST ECO-WASH

> Project Ref. No: CO/P/FP/G80/2013 dated 16/6/2014

Project Title: Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon', at the Arsenic affected rural areas of Assam

PI:

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Oct 2016

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PART 1: EXECUTIVE SUMMARY

Project in brief

Project title: Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon, at the Arsenic affected rural areas of Assam

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Location: Tezpur University, Assam

Objectives: To increase awareness about arsenic contamination of drinking water, its health effects and removal of arsenic and iron by using Arsiron Nilogon, a low-cost simple method developed by the PI's research group, in arsenic affected areas of Assam.

Added scope: As a large rural population, spread all over Assam, are affected by arsenic, and most of the people are unaware of the menace, the present project had a great scope for working for their betterment.

Benefit: The arsenic affected people of rural areas, not reached by other government agencies like Public Health Department, have been benefited by this project.

Approved cost:	Rs. 9,42,810	
Date of Approval:		16/6/2014
Date of Start:		16/6/2014
Target Date of Completion:		15/6/2016
Revised date of completion:		15/8/2016

Technical Executive Summary

Organizational and management aspects

Tezpur University, being one of the best Central Universities of the country, has an adequate infrastructural and organizational set up required for carrying out the project. The university also has a very efficient financial work force for management of the financial aspect.

Physical Progress

The work was completed within the revised schedule time, i.e., in 2 years and 2 months

We have collected groundwater samples from various locations from 12 districts of Assam and analysed the arsenic content and iron contents. The districts covered are Lakhimpur, Sonitpur, Darrang, Jorhat, Golaghat, Majuli, Nalbari, Borpet, Bongaigaon, Karbi Anglong, Dibrigarh and Nagaon. All these areas have been found to be arsenic affected.

We have prepared some print materials like leaflet, posters in 4x3 ft flex and A3 size glossy paper and electronic materials, viz., small videos for the purpose of awareness and training.

*I*st *year*: In the 1st year, we had identified some schools from these areas ranging from higher secondary to primary level and held workshops on awareness on arsenic contamination and training on removal by Arsiron Nilogon. But instead of 7 workshops planned for the 1st year, we have installed Arsiron Nilogon units of different sizes, 200 L to 40 L per batch of 1¹/₂ hour in 11 such schools and conducted a total of 11 workshops in the schools spread over 5 districts by the end of the 1st year, i.e., 15 June 2015. We also have helped villagers from different districts in installing about 25 domestic Arsiron Nilogon Units at their homes (*please see the attached write-up*).

Thus, in the 1st year, we have conducted a total of 11 Workshops in place of proposed 7 Workshops.

 2^{nd} year: In the 2^{nd} year including the extended 2 months, we have set up Arsiron Nilogon units in 32 schools spread over the 6 districts as well as conducted 11 workshops and 25 awareness cum training programs at schools and villages. We also have helped villagers from different districts in installing about 20 more domestic Arsiron Nilogon Units at their homes (*please see the attached write-up*).

Finally on 16 and 17 July 2016, we conducted a workshop with 7 small entrepreneurs and a concluding workshop with 65 users of Arsiron Nilogon, 7 entrepreneurs and 25 promoters of Arsiron Nilogon, at Tezpur University. The entrepreneurs expressed their interest in supplying the Arsiron Nilogon Kits in villages in commercial basis. The workshop with the entrepreneurs focused on procuring the chemicals, packaging, pricing, distribution including the legal aspect and handling of Arsiron Nilogon kits. The concluding workshop focused on training on handling of Arsiron Nilogon Kits were distributed to all the participants. The users and the promoters gave very good feedback in the workshop and assured of continuing the promotion of the Arsiron Nilogon method in the villages.

Thus, in the 2nd year, we have conducted a total of 36 Workshops and Awareness cum Training programs in place of proposed 21 Workshops and Awareness cum Training programs.

The overall progress of the project can be termed as 100%.

Financial Progress

We could not utilise the entire amount of the first year's project fund in the first year due to certain mistakes in the sanction letter. The expenditure details from the date of commencement till the end of the financial year ending on 31/3/2015 along with utilization certificate from the Finance officer of Tezpur University had been submitted earlier. An up to date statement of expenditure till the end of the 1st year of the project, i.e., till 15 June 2015 had also been submitted earlier.

We have however utilised the entire project fund received for the second year with the 2^{nd} year and the extended period of 2 months.

The Utilization certificates and the detail statements of expenditures of the 2nd financial year and also in the 3rd financial year part, i.e., till the end of the project have been enclosed herewith.

Achievements/outcome

Key Activities: The key activities of the projects were to hold Workshops and Training programs in schools and villages to help arsenic affected people of Assam through:

- (i) Creation of mass awareness on arsenic contamination of drinking water
- (ii) Training on use of Arsiron Nilogon, a method for removal of arsenic from drinking water, developed by the PT's research group
- (iii) Helping the arsenic affected people in acquiring Arsiron Nilogon Units and Kits

During the project period, we have installed Arsiron Nilogon units in 42 schools and conducted a total of 45 Workshops and Awareness cum Training programs in place of a total of proposed 28.

Significant Outcomes and Socio-scientific Impact: The significant outcomes and socio-scientific impacts are the following:

- (i) Capacity building in the form of generation of trained manpower for installation of Arsiron Nilogon units and on their use
- (ii) Ability to attract some small entrepreneurs to supply Arsiron Nilogon Kits in villages
- (iii) To take Arsiron Nilogon to a self-sustainable. Now the work initiated by us has started to move on its own. For example, after the end of the project on 14 Aug till date there have been three Workshops separately organised by Assam Agricultural University, District Administration of Nalbari District, Majuli College and a group of people trained by us at Dowarpar village in

Lakhimpur. Moreover, two entrepreneurs have started supply of the Kits and our trained people have installed 16 more units in schools and several in villages.

(iv) At domestic level, as per our estimate, about 1000 units have been at work by now.

Supplementary/ancillary Achievements:

We have been successful in having three entrepreneurs who have started supply of Arsiron Nilogon Kits in some arsenic affected districts, viz., Jorhat, Majuli and North Lakhimpur. This, together with our trained people on Arsiron Nilogon have taken our arsenic removal work using Arsiron Nilogon to a sustainable level in these districts.

Critical analysis of progress/achievements:

- (a) *Issues and Risks Summary:* We did not see any issues or risk factor in the project work. We have been monitoring the performances of all the units installed by us and find them to be working satisfactorily except a few.
- (b) Constraints & plans to overcome constraints: We had faced problems due to a very small amount of fund on the travel head as the proposed field work spread all over Assam needed a much larger amount. Our request the NCSTC to allot some additional amount in the 2nd year by transferring from another head where the NCSTC had allotted a large amount by mistake in the 1st year received no attention.

As a result the PI had to use his own cal and had to drive himself towards the latter part of the project. We also abandoned some plans to work in some distant areas and instead of that concentrated more in nearer areas.

- (c) *Resources generated Communication Software, Human assets, Networking/linkages:* Printed and electronic information materials have been prepared. They were in the forms of leaflet, poster and short videos of arsenic problem and the removal method.
- (d) Any unrealized activities stated in the approved Project? If yes, how did these unrealized activities affect the overall impact of the project? There was no unrealized activity.

Lessons Learned

The adopted method of generating awareness on the arsenic contamination, its health effects and its removal by the Arsiron Nilogon Method through such workshops seems to be highly effective. We received very good response from particularly from the students and some of the teachers and guardians. We also receive good feedback from the participants.

However, we notice a lack of interest among some government school teachers, who appear to be insincere in their own duty. We also have seen lack of interest in some private schools where the authorities are more interested in making money. We feel, we need to organize awareness programs for such school teachers and authorities together with the guardians of the students.

Issues and focus

We had reported some issues to the NCSTC authority/PAC for their timely interventions but regrettably failed to receive their attention. Such indifference in attitude should not happen in matters where development of the people and public money are involved.

(Robin Kumar Dutta) PI Professor, Department of Chemical Sciences Tezpur University, Tezpur, Assam

PART 2: PHYSICAL & FINANCIAL PROGRESS, CRITICAL ASSESSMENT OF OUTCOME

Physical programme and progress:

Sl.	Item	Achievement to date	Likely date of	Remarks
No.			completion	
1	Preparatory works	Completed in time	NA	
2	Conducting	49 Workshops and Training Programs	NA	
	workshops and	have been conducted in place of 28		
	Training programs	planned for the entire project period.		

Financial programme and progress:

- 1. Date of start: 16/6/2014
- 2. Original date of completion (as per approval): 15/6/2016
- 3. Revised date of completion (approval status): 15/8/2016

Detailed statement of expenditure for the 1^{st} financial year part of the 1^{st} year of the project:

S1.]	Head wise funds	5	Expenditure	Unspent	Constraints	Remarks
No	Head	Allocated	Received	(as on 15/08/	amount (₹)		
		(₹)	(₹)	2016) (₹)			
1	Salary	1,92,000.00	*	1,85,152.00	*	None	*Head-wise break
2	Printing and	80600.00	*	66,830.00	*	None	up was not
	Publication						specified for the
3	Travel	60,000.00	*	59,807.00	*	None	received fund.
4	Workshops/	1,90.000.00	*	1,72,382.00	*	None	**The received
	Awareness						amount was less
	cum Training						than the allocated
5	Models and	2,38,500.00	*	1,48,480.00	*	None	amount: The total
	Kits						amount
6	Chemicals &	36,000.00	*	34,835.00	*	None	allocated
	Analytical						(sanctioned)
	Charges						= ₹ 942810.00
7	Contingen-	20,000.00	*	19,944.00	*	None	The total amount
	cies						received = ₹
8	Permanent	40,000.00	*	39,950.00	*	None	813040.00
	equipment						and
Subt	otal	8,57,100.00	*	7,27,380.00	*	NA	The total
Over	head	85,710.00	*	85,660.00	*	NA	expenditure
Tata	1	0 42 810 00	8 12 040 00	8 12 040 00	0.00**	NIA	incurred
1 ota	1	9,42,810.00	8,13,040.00	8,13,040.00	0.00**	NA	= ₹ 813040.00
							Balance as on
							15/8/2016
							= IN1I.

Financial Management:

a) Comments in brief about the financial management capability of the PI:

We believe that the financial part of the project has been managed well.

b) Identification of the 5-10 parameters for ascribing weightage, totalling to 100, preferably in chronological order-

Sl.	Parameter	Weighta	Status of completion		Remarks	
INO.		ge	Comm	Librahy	0/	
		% (A mmmore)	Comp-	Likely	%	
		(Approx)	leted		completion,	
				comple-	11 not	
1	Collecting water samples & testing Arsenic	10	Yes	-	-	
2	Preparation of leaflet/poster/video	20	Yes	-	-	
3	Purchase of equipment	10	Yes	-	-	
4	Selection of place & planning workshop	5	Yes	-	-	
5	Conducting workshop	50	Yes	-	-	
6	Feedback	5	-		About 1% completed	We could not complete the feedback collection due to inability of the PA to travel alone The project outcome is however reflected in subsequent activities of the users, trained people and district administration, NGO, Colleges, etc. After the completion of the project.

Time/Cost overrun, if any and reasons:

It was difficult to complete the project work in time due to late receipt of the 2nd instalment of the project fund and due to restrictions imposed on the PI's movement during State Assembly elections in Assam (March-April, 2016).

We had therefore asked for an extension of the project period without any further financial implication. The project period was accordingly extended for two months, i.e., till 15/8/2016.

Project Achievement and Impact:

Key Activities	Significant Outcomes, especially report the innovative methodologies & outstanding results	Socio-scientific Impact	Remarks
Testing Arsenic in water at different schools/areas	 We have testes arsenic in over 1000 water samples collected from various schools and villages in Assam. We have observed that some of the schools and villagers have been found to be using high arsenic (up to ≈ 700 ppb) water for drinking We have also detected arsenicosis symptoms in students at some schools 	The finding of presence of high concentration of arsenic in drinking water and detection of arsenicosis at different areas have made the people aware of the necessity for removal of arsenic from drinking water.	
Conducting workshops and training programs	 We have conducted 47 workshops and Training programs on Arsiron Nilogon at schools, villages and Tezpur University in different districts of Assam in place of 28 such programs during the project period. We have installed 43 Arsiron Nilogon units of different batch capacities (500 L to 40 L) at different schools and 36 domestic (20L) Arsiron Nilogon Units at different households. All schools were enthusiastic about our activities and about removal of arsenic from drinking water. Some guardians and teachers from other schools also attended. They all gave very good feedback on the awareness they got about arsenic contamination of groundwater and its removal from drinking water. Many of the people trained by us on Arsiron Nilogon Units at their areas currently taking the small community units (500-40 L) in Schools, etc. to 66 and domestic units (500-20 L to about 1000 units. We also have trained some small entrepreneurs on supply of Arsiron Nilogon Kits at a workshop held at Tezpur University held on 16 July 29016. 	 The Arsiron Nilogon has been gaining vast popularity in Assam. People trained by us have been taking the work to a sustainable state. Some schools, colleges, and other organizations including NGO and District authority have organised awareness program on Arsenic and Arsiron Nilogon and invited us as resource persons. Some Entrepreneurs have started supply of Arsiron Nilogon Kits helping the Arsiron Nilogon in attaining a self sustainable state. Arsiron Nilogon Kits are now available at some arsenic affected areas like Jorhat and Lakhimpur in Assam News on our activities on Arsenic removal and Arsiron Nilogon often appear in news local newspapers. People contact us for the Arsiron Nilogon method at their home after reading news of the workshops in newspapers. 	

Supplementary/ancillary Achievements:

Level & nature of relationship established with stakeholders/ original partners	Enhancement in knowledge & skills of project staff	Dissemination levels of outcomes/ findings	Next targeted levels of intervention	Expected/ planned sustainability levels of intervention	Remarks
The level is quite beyond our earlier expectation.	The project assistant has gained from the experiences of the project.	The Arsiron Nilogon method is becoming self-sustainable	 To go to more remote areas Attracting more entrepreneurs 	Promotion of the Arsiron Nilogon method by hundreds of people trained by us and supply of the Arsiron Nilogon Kits by entrepreneurs indicates a sustainability of the Arsiron Nilogon method for arsenic removal in Assam	

In addition to the above we have also made an attempt to help fluoride affected people of Karbi Anglong District of Assam in getting fluoride-free drinking water.

Critical analysis of progress/achievements:

(a) Issues and Risks Summary

• There was no issue or risk involved in the work except difficulty in travelling to unknown remote villages by a single, particularly, woman PA. We were compelled to appoint a woman as the PA due to unavailability of suitable candidate probably due to the low salary (Rs. 8000/- pm) of the PA.

(b) Constraints

- A Project Assistant (PA), Mr Gautam Baruah, was appointed on 11/8/2014. The project work progressed as per plan till resignation by the PA Mr Baruah with effect from 24/8/2015. After that we could appoint only a woman PA, Ms Rajita Devi, on 11/9/2015. It became somewhat difficult to manage the field works as she could not visit the fields alone. There had been another difficulty due to late receipt of the 2nd instalment of the fund. We could however completed the project, within two years term and two extended months, with very satisfying overall work done and the impact of the project.
- It was difficult to travel to distant places as the amount sanctioned for travel including field work was very small (only Rs. 30000). So we concentrated more in the nearer districts, the central Assam, instead of intervening in the distant districts of western Assam and southern Assam.
- The teachers of some schools are very indifferent towards the problem even though the schools are using arsenic containing water for drinking and cooking mid-day meal. We find such attitude in private (both rich and poor) as well as public sector.
- Restriction on movement of the PI during Assembly election (March-April, 2016) delayed some scheduled works.
- Late release of the sanctioned amount for the second year was another constraint.

(c) Plans to overcome constraints

- We have requested enhancing the amount in travel including field work head for the 2nd year by adjusting from within the unspent amount of the 1st year and mistakenly allotted amount of the 2nd year. It was not considered by the NCSTC, however.
- Legislations are necessary to bind the money greedy private schools to provide arsenic-free drinking water. Moreover, some small contingency fund should be provided to the Government schools to meet the small recurring expenditures for safe drinking water.

(e) Failures/Under achievements:

None

- (e) Resources generated Communication Software, Human assets, Networking/linkages
- We now have a large number of people trained on Arsiron Nilogon who have been working on arsenic removal by Arsiron Nilogon in villages in Assam.
- We also have generated a large network with such people in many arsenic affected areas in Assam.
- The projector and sound system procured from the project will be used for similar purpose in future.
- We have made a leaflet and a poster for creating awareness on arsenic contamination and its illeffects and on the method of removal of arsenic, viz., Arsiron Nilogon.
- A small video also has been made on the method of Arsiron Nilogon.

Remarks:

Milestone/Pha	What Worked	What	Ways to improve (strategy,	Remarks
se		didn't	objectives, science commu-	
		work	nication methodologies,	
			behavioural change/	
			practices, etc.)	
1 st Phase:				
<u>1st half year:</u>	Done as proposed	None	NA	The 1 st year's progress
Preparation of				was more than planned
1 st lot of				as 11 workshops were
information				conducted in place of 7
materials and 1^{st}				
set of model				
treatment units				
and kits				
and Dhogo.				
¹ st voor: 7	11 workshops (in place of 7	Wa hava	We had problem in using	
<u>1 year</u> . /	planned) have been conducted	proferred	projector due to power	
each in 7 of the	at schools by March 2015	schools	failure where we had to use	
most affected	at schools by Watch 2015	over	generator	
Subdivisions of		colleges	The amount sanctioned per	
Assam		coneges	workshop was too small to	
1 issuin			organize it at colleges.	
3 rd Phase:				
<u>2nd year: 21</u>	36 Workshops/ Awareness and	None	NA	The overall 2 nd year's
Awareness and	Training programs have been			outcome has been more
Training	conducted in place of scheduled			than expectation as we
Programs and	21.			conducted 36
helping 1000	A total of 67 schools have been			Workshops/Awareness
families in	using the Arsiron Nilogon			cum Training programs
Arsenic	method as on date.			in place of 21, a total of
removal by	As per our estimate, more than			66 schools and over
Arsiron Nilogon	1000 arsenic affected families			1000 families have been
	are now using the Arsiron			using Arsiron Nilogon
	Nilogon method			method

Lessons Learned:

Audio-visual reporting: List of CDs, Photos with write-ups, etc. attached as annexure/enclosure

Attachments submitted with the previous report:

(1) brochure (leaflet), (2) Poster, (3) Write up, (4) Newspaper cutting, (5) CD

Attachments submitted with this report:

(1) modified brochure (leaflet), (2) Modified Poster, (3) Updated Write-up with photograph and newspaper cuttings and (4) CD containing the report.

Newsworthy items of report (along with photographs):

- Please see the attached Write-up (Photographs included) and the Newspaper cuttings.
- We have been successful in arranging a sustainable supply of Arsiron Nilogon Kits in the arsenic affected areas through some local entrepreneurs.
- We have also been successful in capacity building by training a large number of people handling the kits and setting up and use of Arsiron Nilogon units which has taken the work to a sustainable level.

Follow up action at the end of project (Whether identified prospects for further funding,

implementation, collaboration with any prospective partners to carry on the project beyond funding period? If yes, please specify the name of the partner, type of the organization, type of partnership, nature of technical, organizational and amount of financial support.):

We have submitted a project proposal to the DST for consideration under the WTI call for funding to continue the work and hope that the project will be funded by the DST. We submitted the proposal in response to the WTI call as we need much larger funding particularly for a costly instrument, a large team of project assistants and travel.

Points needing attention:

Discuss in details constraints affecting progress of works -

i) inputs pertaining to the activities

The large number of workshops sometimes appeared as a problem as we had to take leave and go out of station frequently. We had to schedule some of them in the weekends.

ii) sufficiency of manpower

Manpower is certainly a constraint. Two project assistants would have been ideal instead of one. Moreover, it is difficult to get a good project assistant with a meagre salary like ₹ 8000 per month. The woman PA had put us in more trouble as she could not visit villages alone.

iii) comments on whether proposed financial and physical programme can be achieved Yes. We have done it.

iv) anticipated slippages in financial and physical targets

No question of anticipation now. Please note that we have requested redistribution of some amounts in various Heads as a corrective measure of the mistaken allocation but that was not heard.

v) suggestions for achieving the set targets: We have achieved the targets.

Annexure(s)/bar charts/plates, as applicable:

A write up with photographs and news paper cuttings has been attached.

(Robin Kumar Dutta) Professor, Department of Chemical Sciences Tezpur University, Tezpur, Assam

A Detail Write-up On

The work done during the entire project period of 16/6/2014 - 15/8/2016

Project title:	Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon, at the Arsenic affected rural areas of Assam			
PI:	Dr. Robin Kumar Dutta, Professor, Department of Chemical Sciences, Tezpur			

University, Napaam, Tezpur, Assam

Objectives: To increase awareness about arsenic contamination of drinking water, its health effects and removal of arsenic and iron by using Arsiron Nilogon, a low-cost simple method developed by the PI's research group, in arsenic affected areas of Assam.

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Amount utilized:	Rs. 8,13,040	
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Date of Start:		16/6/2014
Target Date of Completion:		15/6/2016
Revised Date of Completion:		15/8/2016

A photo-feature of the progress:

One-page Handout:

A single page leaflet in Assamese was printed (Fig.1). The leaflet describes in brief the situation arising due to arsenic contamination of drinking water, the safety measures to be taken and specially the use of the low-cost and simple but efficient "Arsiron Nilogon" method for removing arsenic from water. The handout is printed in A4 size paper and distributed to students, teachers and guardians in schools and villagers during workshops and other field work. (*A copy of latest hand-out attached*)

Poster:

Posters in Assamese on 4ft x 3ft size in flex paper and A3 size glossy paper was printed (Fig.2). The poster described in brief the situation arising due to arsenic contamination of drinking water, the safety measures to be taken and specially the use of the low-cost and simple but efficient "Arsiron Nilogon" method for removing arsenic from water. About 70 poster is printed in 4 X 3 ft² size flex cloth were displayed in workshop venues. About 100 posters in A3 glossy paper were distributed to teachers of different schools and to promoters of Arsiron Nilogon. (*A copy of A3 size poster attached*)

Field Work:

The project involves mainly field work: preparatory field work and field work for conducting workshops. We have visited about 50 schools for preparation for conducting workshops. At least 1000 water samples, collected from various schools and villages have been tested for arsenic and iron using an Atomic Absorption Spectrophotometer attached with a Hydride Vapour Generator.

Details of workshops/Awareness cum Training Programmes conducted during the entire Project tenure (16/6/2014 – 15/8/12016):

Number of workshops proposed:	First year	= 7
	Second year	= 21
Total number of workshops p	proposed	= 28

Number of workshops conducted:

First year = 11

Second year = 36 Total number of workshops conducted = 47

Summary Table of the workshops conducted in the 1st year:

S1.	Name of School/College	Date	Number of Partici-	Arsiron	Remarks
No.			pants: Student +	Nil-ogon	
			Teacher+Villager	Units	
			(approximate)	installed	
IA-1	Ruptoli Prathamik Bidyalay,	27/3/2015	30+7+30=67	200 L &	
	Dholpur, North Lakhimpur			20 L	
IA-2	Kadam Jatiya Bidyalay,	28/3/2015	100+20+30=150	200 L &	
	Kadam, North Lakhimpur			20 L	
IA-3	Deodhanighat Uchha Balika	25/4/2015	130+25+20=175	200 L &	
	Bidyalay, Darrang			20 L	
IA-4	Muhiram Saikia Higher	8/5/2015	200+30+5=235	200 L &	
	Secondary School, Titabor,			20 L	
	Jorhat				
IA-5	Padmaram Sarma Higher	8/5/2015	220+15+10=245	200 L &	
	Secondary School,			20 L	
	Madhapur, Jorhat				
IA-6	Rebakanta Baruah High	9/5/2015	150+25+10=185	200 L &	
	School, Kenduguri, Jorhat			20 L	
IA-7	Sarkar Jatiya Bidyalay,	21/5/2015	120+10+5=135	200 L &	
	Rangajan, North Lakhimpur			20 L	
IA-8	Jatiya Bidyalay, Nakari,	21/5/2015	50+10+5=65	200 L &	
	North Lakhimpur			20 L	
IA-9	Chamaguri Satra Practicing	22/5/2015	30+5+40=70	200 L &	
	School, Majuli, Jorhat			20 L	
IA-10	Milan Jyoti High School,	22/5/2015	90+20+5=115	200 L &	
	Totoya, Majuli, Jorhat			20 L	
IA-11	Pitambar Deb Junior	23/5/2015	170+25+15=210	200 L &	
	College, Garamur, Majuli,			20 L	
	Jorhat				
IB-1*	Sarabari Higher Secondary	25/4/2015	250+20+2	300 L	Workshop
	School, Darrang		(not counted)		was not
					conducted
	Total		1652		
	11 Workshops				

SI No	Name of School/College	Date of	Number of Partici-	Arsiron	Remarks
51. 110.	Nume of Senool/Conege	workshop	nants: Student +	Nil-ogon	Remarks
		workshop	Teacher+Villager	Units	
			(approximate)	installed	
IIA 1	Asthbalia Higher	12/2/2016	(approximate)		
11A-1	Secondary School Colorbat	12/2/2010	230+23+3-280	000 L &	
11 4 2	Secondary School, Golaghat	7/5/2016	(0, 0, 10)	20 L	
IIA-2	Chekuria Janajati LP School,	//5/2016	60+6+40=106	100 L &	
	Titabor, Jorhat			20 L	
IIA-3	Bochabari LP School,	7/5/2016	30+3+10=43	100 L &	
	Titabor, Jorhat			20 L	
IIA-4	Karatipar LP School,	7/5/2016	50+8+25=83	200 L &	
	Titabor, Jorhat			20 L	
IIA-5	Mazgaon Village, Titabor,	8/5/2016	0+3+17=20	500 L	
	Jorhat				
IIA-6	Sariyatpur L.P. School,	21/3/2016	40+3+4=47	100 L	
	Kalgachia, Borpeta				
IIA-7	Pashim Soupur LP,	14/5/2016	30+3+4=37	100 L	
	Kalgachia, Borpeta				
IIA-8	Gaguldubi Majgaon	1/6/2016	35+7+45=87	50 L	
	Prathamik Vidvalava.				
	Lakhimpur				
IIA-9	Pokajara Balichapori High	4/6/2016	100+40+30=170	300 L	
	School. Majuli	., .,	100110100 170	2002	
IIA-10	Tezpur University (for	16/7/2016	0+0+7=11	20 L	
	Entrepreneurs)	10/7/2010	01017-11	2012	
$II\Delta_{-11}$	Teznur University (for Users	17/7/2016	15+50+35-100	20.1	
11/2-11	of Arsiron Nilogon)	1////2010	15+50+55-100	20 L	
	Total Workshops - 11				
	10tat workshops = 11				

Summary Table of the details of the workshops conducted in the 2nd year:

<u>Summary Table of the Training programs conducted in the 2nd year:</u>

(Only teachers and some villagers were trained)

Serial	Name of School	Date of	Total no of	Unit	Remarks
No.		installation	student	size	
			+teacher+others		
IIB-1	T.N.D. Boys' School,	14/5/2016	100+10+5=115	200 L	
	Kalgachia, Borpeta				
IIB-2	Rubi Balikari Girls' ME	14/5/2016	200+20+4=224	100 L	
	School, Kalgachia, Borpeta				
IIB-3	PMHS School, Dist.	14/5/2016	300+3+5 =8	100 L	
	Bongaigaon				
IIB-4	Alengi Village, Titabor,	8/5/2016	0+3+25=28	300 L	
	Jorhat				

IIB-5	Tipomiya Bagodia LP School, Titabor, Jorhat	8/5/2016	25+4+5=34	50 L	
IIB-6	Gaguldubi Nimna Buniyadi Vidyalaya, Lakhimpur	1/6/2016	60+4+3=67	50 L	
IIB-7	Mainapara Nimna Buniyadi Vidyalaya, Lakhimpur	1/6/2016	30+3+5=38	50 L	
IIB-8	Kadamkachari Prathamik Vidyalaya, Lakhimpur	1/6/2016	50+3+3=56	200 L	
IIB-9	Kulabari Prathamik Vidyalaya, Lakhimpur	1/6/2016	30+4+3=37	40 L	
IIB-10	Kulabari Boro LP School, Boginadi, Lakhimpur	1/6/2016	40+3+3=46	40 L	
IIB-11	Dowarpar LP School, Lakhimpur	2/6/2016	40+3+60=103	40 L	
IIB-12	Chilakola Koibroto Nimna Buniyadi Vidyalaya, Majuli	3/6/2016	70+6+4=80	50 L	
IIB-13	Nayanananda L.P. School, Balichapori, Majuli	3/6/2016	20+2+5=27	40 L	
IIB-14	Kamalabari Lakheraj Madhya Asomiya Vidyalaya, Majuli	4/6/2016	100+6+5=111	50 L	
IIB-15	Molual Missing LP School, Balichapori, Majuli	3/6/2016	30+2+6=37	50 L	
IIB-16	Chitadarchook LP School, Garamur, Majuli	3/6/2016	20+2+4=26	40 L	
IIB-17	Moamari LP School, Moamari, Majuli	2/6/2016	15+2+4=21	40 L	
IIB-18	Shilikhaguri LP School, Majuli	2/6/2016	40+2+6=48	40 L	
IIB-19	Tribeni Girls' ME School, BaligaonMajuli	2/6/2016	70+8+4=82	50 L	
IIB-20	Shankardev Shisu Niketan, Rawanapar, Majuli	2/6/2016	100+8+8=116	50 L	
IIB-21	Upar Botiamari Prathamik Vidyalaya, Majuli	4/6/2016	30+3+4=37	40 L	
IIB-22	Upar Botiamari Sarkari Nimna Buniyadi Vidyalaya, Majuli	4/6/2016	30+3+5=38	40 L	
IIB-23	Bengena Ati High School, Bengena Ati Satra, Majuli	4/6/2016	200+15+4=19	500 L	
IIB-24	Jogigaon LP School, Bongaon, Majuli	3/6/2016	25+6+6=37	40 L	
IIB-25	Misamari LP School, Bongaon, Majuli	3/6/2016	50+6+5=61	50 L	
	Total training programs = 25		Total no. of people benefited =		

Details with photographs of Individual Workshops of 1st Year:

Workshop IA-1: Venue: Ruptoli Prathamik Bidyalay, Ruptoli, Dholpur, District Lakhimpur, Assam Date: 27/03/2015 Time: 11:00 AM – 1:00 PM Speaker: The PI and Prof. K.D. Barua, Retired College teacher and popular science writer Participants: Students - 30 Teachers- 7 (including teachers from other schools) Guardians & villagers: 30

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:



1. A section of the participants, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015



2. A section of the participants, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015



3. Audio-visual presentation by PI, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015

4. Talk by CSIR award winner popular science writer Prof. K.D. Barua, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015

5. Interaction by a participant, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015

6. Demonstration of Arsiron Nilogon, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015

7. The 200 L Arsiron Nilogon Unit, Ruptoli Prathamik Bidyalay, Dholpur, 27/3/2015

Workshop IA-2:

Venue: Kadam Jatiya Bidyalay, Kadam, District Lakhimpur, Assam Date: 27/03/2015 Time: 11:00 AM – 1:00 PM

Speaker: The l	PI.	
Participants:	Students -	100
	Teachers-	20 (including teachers from other schools)
	Guardians & villagers:	30

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. A section of the participants, Kadam Jatiya Bidyalay, Kadam, 28/3/2015

2. A section of the participants, Kadam Jatiya Bidyalay, Kadam, 28/3/2015

3. Audio-visual presentation by PI, Kadam Jatiya Bidyalay, Kadam, 28/3/2015

4. Audio-visual presentation by PI, Kadam Jatiya Bidyalay, Kadam, 28/3/2015

5. 200 L and 20L Arsiron Nilogon Units at Kadam Jatiya Bidyalay, Kadam, 28/3/2015

Workshop IA-3:

Venue: Deodhanighat Uchha Balika Bidyalay, Namkhola, District Darrang, Assam Date: 25/04/2015 Time: 11:00 AM – 2:00 PM

Speaker: The l	PI.	
Participants:	Students -	130
	Teachers-	25 (including teachers from other schools)
	Guardians & villagers:	20

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The PI speaking at the workshop, Deodhanighat Uchha Balika Bidyalay, 25/4/2015

2. The PI speaking at the workshop, Deodhanighat Uchha Balika Bidyalay, 25/4/2015

3. The 20 L Arsiron Nilogon unit at Deodhanighat Uchha Balika Bidyalay, 25/4/2015

4. The 200 L Arsiron Nilogon unit at Deodhanighat Uchha Balika Bidyalay, 25/4/2015

Workshop IA-4:

Venue: Muhiram Saikia Higher Secondary School, Titabor, Jorhat, Assam Date: 8/5/2015 Time: 10:00 AM – 1:00 PM

 Speaker: The PI and M. Nath, North-eastern Regional Institute of Land & Water Management, Tezpur

 Participants:
 Students 200

 Teachers 30 (including teachers from other schools)

 Guardians & villagers:
 5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The PI speaking at workshop at Mihiram Saikia Higher Secondary School, 8/5/2015

2. The participants at workshop at Mihiram Saikia Higher Secondary School, 8/5/2015

3. The 200 L Arsiron Nilogon Unit at Mihiram Saikia Higher Secondary School, 8/5/2015

Workshop IA-5:

Venue: Padmaram Sarma Higher secondary School, Dangdhora, Jorhat, Assam Date: 8/5/2015 Time: 2:00 PM – 4:30 PM

 Speaker: The PI and M. Nath, North Eastern regional Institute of Land & Water Management, Tezpur

 Participants:
 Students 220

 Teachers 15 (including teachers from other schools)

 Guardians & villagers:
 10

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. M. Nath speaking at workshop at Padmaram Sarma H. S. School, Dangdhora, Jorhat

2. A section of the participants at workshop at Padmaram Sarma H. S. School, Dangdhora, Jorhat

3. Demonstration of Arsiron Nilogon at Padmaram Sarma H. S. School, Dangdhora, Jorhat

4. The PI and M. Nath at workshop at Padmaram Sarma H. S. School, Dangdhora, Jorhat

Workshop IA-6:

Venue: Rebakanta Barua High School, Kenduguri, Jorhat, Assam Date: 9/05/2015 Time: 11:00 AM – 2:00 PM

Speaker: The PI, M. Nath, NERIWALM and Dr. S. Bordoloi, Dibrugarh UniversityParticipants:Students -Teachers-150Guardians & villagers:10

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The PI speaking at workshop at Rebakants Baruah High School, Kenduguri, Jorhat

2. Dr. S. Bordoloi speaking at workshop at Rebakants Baruah High School, Kenduguri, Jorhat

3. A section of Participants at workshop at Rebakants Baruah High School, Kenduguri, Jorhat

4. The 200 L Arsiron Nilogon Unit at Rebakants Baruah High School, Kenduguri, Jorhat

Workshop IA-7:

Venue: Sarkar Jatiya Bidyalay, Rangajan, North Lakhimpur, Assam Date: 21/05/2015 Time: 11:00 AM – 1:00 PM

Speaker: The I	PI.	
Participants:	Students -	120
_	Teachers-	10
	Guardians & villagers:	5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The PI speaking at workshop at Sarkar jatiya Bidyalay, Rangajan, Lakhimpur, 21/5/15

2. Participants at workshop at Sarkar jatiya Bidyalay, Rangajan, Lakhimpur, 21/5/15

3. Participants at workshop at Sarkar jatiya Bidyalay, Rangajan, Lakhimpur, 21/5/15

4. 201 Arsiron Nilogon Unit at Sarkar jatiya Bidyalay, Rangajan, Lakhimpur, 21/5/15

Workshop IA-8:

Venue: Jatiya Bidyalay, Nakari, North Lakhimpur, Assam Date: 21/05/2015 Time: 2:00 AM – 4:00 PM

Speaker: The PI. Participants: Students -50 Teachers-10 Guardians & villagers:

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

5

Photographs:

1. A section of the participants at workshop at Jatiya Bidyalay, Nakari, North Lakhimpur

2. The 200 L Arsiron Nilogon Unit at Jatiya Bidyalay, Nakari, North Lakhimpur

Workshop IA-9:

Venue: Chamaguri Satra Practicing School, Chamaguri, Majuli, Jorhat, Assam Date: 22/05/2015 Time: 10:00 AM – 1:00 PM

Speaker: The l	PI.	
Participants:	Students -	30
	Teachers-	5
	Guardians & villagers:	40

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The 200 L Arsiron Nilogon Unit installed at Chamaguri Satra Practicing School, Chamaguri

2. The 20 L Arsiron Nilogon Unit at Chamaguri Satra Practicing School, Chamaguri

Workshop IA-10:

Venue: Milan Jyoti High School, Totoya, Majuli, Jorhat, Assam Date: 22/05/2015 Time: 2:00 PM – 4:30 PM

Speaker: The l	PI.	
Participants:	Students -	90
_	Teachers-	20 (including teachers from other schools)
	Guardians & villagers:	5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. A 20 L Arsiron Nilogon Unit demonstrated at Milan Jyoti High School, Totoya, Majuli

Workshop IA-11:

Venue: Pitambar Dev Goswami junior College, Garamur, Majuli Jorhat, Assam Date: 27/03/2015 Time: 10:00 AM – 1:00 PM

Speaker: The I	PI.	
Participants:	Students -	170
-	Teachers-	25
	Guardians & villagers:	15

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. A section of the participants at workshop at P.D. Goswami Junior College, Garamur, Majuli

A 20 L Arsiron Nilogon Unit demonstrated at P.D. Goswami Junior College, Garamur, Majuli

Details with photographs of Individual Workshops of 2nd Year:

Workshop IIA-1:

Venue:	Aathkhelia Hi	Aathkhelia Higher Secondary School, Golaghat		
Date:	12/2/2016	12/2/2016		
Time:	11:00 AM – 1:	11:00 AM – 1:00 PM		
Speaker:	Dr Robin Kumar Dutta			
Participants:	Students -	250		
	Teachers-	25		
	Guardians & villagers:	5		

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 800 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

Photographs:

1. The PI speaking at the Workshop at Aathkhelia HSS

2. The PI speaking at the Workshop at Aathkhelia HSS

3. A section of the participants at Aathkhelia HSS

Workshop IIA-2:

Venue: Chekuria Janajati LP School, Titabor, Jorhat. Date: 7/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 60 Teachers- 6 (including teachers from other schools) Guardians & villagers: 40

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 100 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. A section of the participants, Chekuria LP

2. At the demonstration, Chekuria LP

Workshop IIA-3:

Venue: Bochabari LP School, Titabor, Jorhat Date: 7/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 3 (including teachers from other schools) Guardians & villagers: 10

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 100 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI speaking at Awareness cum Training program, Bochabari LP

2. The PI speaking at Awareness cum Training program, Bochabari LP

3. Some teachers and students with the Arsiron Nilogon Unit, Bochabari LP

Workshop IIA-4:

Venue: Karatipar LP School, Titabor, Jorhat Date: 7/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 50 Teachers- 8 (including teachers from other schools) Guardians & villagers: 25

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI speaking at Awareness cum Training program, Karatipar LP

2. The Head Master with the Arsiron Nilogon Unit, Karatipar LP

Workshop IIA-5: Venue: Mazgaon Village, Titabor, Jorhat Date: 8/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 0 Teachers- 3 Villagers: 17

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 500 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and

the use of the Arsiron Nilogon method was demonstrated.

1. The PI speaking at Awareness cum Training program, Mazgaon

2. A villager with his Arsiron Nilogon Unit, Mazgaon

Workshop IIA-6:

Venue: Sariyatpur LP School, Kalgachia, Borpeta Date: 21/3/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 3 (including teachers from other schools) Guardians & villagers: 7

Demonstration: By Mr. SQK Ahmed, HoD and students of Department of Chemistry, Nabajyoti College, Kolgachia. This was a workshop jointly organized with the Department of Chemistry, Nabajyoti College, Kolgachia.

A 100 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

The teachers, some school children and the team from Nabajyoti College with the 100 L Arsiron Nilogon Unit at Chariyatpur L.P. School

Mr. SQK Ahmed, HoD, Department of Chemistry, Navajyoti College, Kalgachia speaking at the workshop at Chariyatpur L.P. School

Workshop IIA-7:

Venue: Pashim Soupur LP School, Kalgachia, Borpeta Date: 14/5/2016 Time: 10:00 AM – 11:00 AM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 3 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the PI and Mr. SQK Ahmed, HoD, Department of Chemistry, Nabajyoti College, Kolgachia.

A 50 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI demonstrating at the workshop at Soupur LP

2. A teacher with the 100 L Arsiron Nilogon unit at the workshop at Soupur LP

Workshop IIA-8:

Venue: Gaguldubi Majgaon Prathamik Vidyalaya, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 35 Teachers- 7 (including teachers from other schools) Guardians & villagers: 45

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

The PI speaking at the Workshop, Gagaldubi Mazgaon LP

2. Mr. Gautam Bora, a student of PI, speaking at the Workshop, Gagaldubi Mazgaon LP

Workshop IIA-9:

1.

Venue: Pokajara Balichapori High School, Majuli Date: 4/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 100 Teachers- 40 (including teachers from other schools) Guardians & villagers: 30

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 300 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI speaking at the workshop, Gagaldubi Mazgaon LP

2. The PI speaking at the workshop, Gagaldubi Mazgaon LP

3. The PI speaking at the workshop, Gagaldubi Mazgaon LP

Workshop IIA-10:

Venue: Tezpur University (for Entrepreneurs) Date: 16-17/7/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 0 Teachers- 0 Entrepreneurs: 8

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 20 L small community Arsiron Nilogon unit was demonstrated.

1. PI discussing marketing of Arsiron Nilogon kits with some entrepreneurs at the workshop at TU

Workshop IIA-11:

Venue: Tezpur University (for Users of Arsiron Nilogon) Date: 17/7/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta (PI), Dr. Suresh Kumar Nath, Dr. Pallab Sharma, and some users Participants: Promoters- 15 (including college teachers) Users- 75 (including teachers from schools) Entrepreneurs: 7 Others- 15 (research scholars, teachers etc from Tezpur University) Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 20 L small community Arsiron Nilogon unit was demonstrated. The subject of the workshop was-"ARSIRON NILOGON: Availability and Handling of Arsiron Nilogon Kits".

1. The PI addressing at the workshop at TU, the Dean of Sc & Tech and the Head, Dept of Chemical Sc

2. A section of the participants at the workshop at TU

3. The small entrepreneurs (standing) being introduced to the users

Details with photographs of Individual Workshops of 2nd Year:

Awareness cum Training Program IIB-1:

Venue: TND Boys School, Kalgachia, Borpeta Date: 14/5/2016 Time: 2:30 PM – 3:30 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 3 (including teachers from other schools)

Guardians & villagers: 4

Demonstration: By the PI and Mr. SQK Ahmed, HoD, Department of Chemistry, Nabajyoti College, Kolgachia.

A 50 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI with Mr. Ahmed and teachers of TND Boys' school

2. Teachers and students of TND Boys' school collecting arsenic-free water

Awareness cum Training Program IIB-2:

Venue: Rubi Balikari Girls' ME School, Kalgachia, Borpeta Date: 13/5/2016 Time: 11:30 AM – 12:30 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 3 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the PI and Mr. SQK Ahmed, HoD, Department of Chemistry, Nabajyoti College, Kolgachia. A 50 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI demonstrating with a 100 L Arsiron Nilogon unit at Rubi Balikuri Girls' ME school

2. The PI with a section of the teachers at Rubi Balikuri Girls' ME school

Awareness cum Training Program IIB-3:

Venue: PMHS School, Bongaigaon Date: 13/5/2016 Time: 1:00 PM – 2:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 0 (200) School was closed Teachers- 3 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the PI and Mr. SQK Ahmed, HoD, Department of Chemistry, Nabajyoti College, Kolgachia.

A 50 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

The PI, Mr. Ahmed, two teachers PMHS, Bongaigaon with a 100 L Arsiron Nilogon Unit

Awareness cum Training Program IIB-4:

Venue: Alengi Village, Titabor, Jorhat Date: 8/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 0 Teachers- 3 (including teachers from other schools) Guardians & villagers: 25

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 300 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI speaking at Awareness cum Training Program, Alengi

Awareness cum Training Program IIB-5:

Venue: Tipomiya Bagodia LP School, Titabor, Jorhat Date: 8/5/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 25 Teachers- 4 (including teachers from other schools) Guardians & villagers: 34

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 200 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. Two teachers with the Arsiron Nilogon Unit, Tipomia Bagodia LP

Awareness cum Training Program IIB-6:

Venue: Gaguldubi Nimna Buniyadi Vidyalaya, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 60 Teachers- 4 (including teachers from other schools) Guardians & villagers: 3

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 50 L small community Arsiron Nilogon unit and a 20 L domestic unit were installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI with Head Mistress and some students, Gagaldubi LP

Awareness cum Training Program IIB-7:

Venue: Mainapara Nimna Buniyadi Vidyalaya, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 3 (including teachers from other schools) Guardians & villagers: 5 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Mr. A Bora (A Research Scholar of the PI) with the Head Mistress, Mainapara LP

Awareness cum Training Program IIB-8:

Venue: Kadamkachari Prathamik Vidyalaya, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 50 Teachers- 3 (including teachers from other schools) Guardians & villagers: 3

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 200 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Two teachers with the Arsiron Nilogon unit at Kadam Kachari LP

Awareness cum Training Program 9:

Venue: Kulabari Prathamik Vidyalaya, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 4 (including teachers from other schools) Guardians & villagers: 3

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron

Nilogon method was demonstrated.

1. Head Master with 40 L Arsiron Nilogon Unit at Kulabari Prathamik Vidyalaya

Awareness cum Training Program 10:

Venue: Kulabali Boro LP School, Boginadi, Lakhimpur Date: 1/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 3 (including teachers from other schools) Guardians & villagers: 3 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron

Nilogon method was demonstrated.

(Photo not taken by mistake)

Awareness cum Training Program 11:

Venue: Dowarpar LP School, Lakhimpur Date: 2/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 40 Guardians & villagers: 10

Demonstration: By the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. The PI demonstrating at Dowarpar LP

Awareness cum Training Program 12:

Venue: Chilakola Koiborto Nimna Buniyadi Vidyalaya, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 70 Teachers- 6 (including teachers from other schools) Guardians & villagers: 4 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. A teacher with Arsiron Nilogon unit at Chilakola Koiborto Nimna Buniyadi Vidyalaya

Awareness cum Training Program 13:

Venue: Nayanananda L.P. School, Balichapori, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 20 Teachers- 2 (including teachers from other schools) Guardians & villagers: 5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. A teacher with Arsiron Nilogon unit at Nayanananda LP

Awareness cum Training Program 14:

Venue: Kamalabari Lakheraj Madhya Asomiya Vidyalaya, Majuli Date: 4/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 100 Teachers- 6 (including teachers from other schools) Guardians & villagers: 5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. A teacher with Arsiron Nilogon unit at Kamalabari Lakheraj Madhya Asomiya Vidyalaya

Awareness cum Training Program 15:

Venue: Molual Missing LP School, Balichapori, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 2 (including teachers from other schools) Guardians & villagers: 6 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Arsiron Nilogon unit at Molual Missing LP

Awareness cum Training Program 16:

Venue: Chitadarchook LP School, Garamur, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 20 Teachers- 2 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Arsiron Nilogon unit at Chitadarchook LP

Awareness cum Training Program 17:

Venue: Moamari LP School, Moamari, Majuli Date: 2/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 15 Teachers- 2 (including teachers from other schools) Guardians & villagers: 4 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

(Photograph was not taken by mistake. The place is very remote with very poor road connectivity.)

Awareness cum Training Program 18:

Venue: Shilikhaguri LP School, Majuli Date: 2/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 40 Teachers- 2 (including teachers from other schools) Guardians & villagers: 6

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. A villager, a teacher and some students with a 40 L Arsiron Nilogon unit at Silikhaguri LP

Awareness cum Training Program 19:

Venue: Tribeni Girls' ME School, BaligaonMajuli Date: 2/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 70 Teachers- 8 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron

Nilogon method was demonstrated.

1. Some students of Tribeni Girls' ME with an Arsiron Nilogon unit

Awareness cum Training Program 20:

Venue: Shankardev Shisu Niketan, Rawanapar, Majuli Date: 2/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 100 Teachers- 8 (including teachers from other schools) Guardians & villagers: 8 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Head Master, two teachers and a student with Arsiron Nilogon unit At Shankardev Shisu Niketan, Rawanapar, Majuli

Awareness cum Training Program 21:

Venue: Upar Botiamari Prathamik Vidyalaya, Majuli Date: 4/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 3 (including teachers from other schools) Guardians & villagers: 4

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. Teachers with an Arsiron Nilogon unit at Upar Botiamari LP

Awareness cum Training Program 22:

Venue: Upar Botiamari Sarkari Nimna Buniyadi Vidyalaya, Majuli Date: 4/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 30 Teachers- 3 (including teachers from other schools) Guardians & villagers: 5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron

Nilogon method was demonstrated.

1. Teachers with an Arsiron Nilogon unit at Upar Botiamari Sarkari Nimna Buniyadi Vidyalaya

Awareness cum Training Program 23:

Venue: Bengena Ati High School, Bengena Ati Satra, Majuli Date: 4/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 0 Teachers- 0 Guardians & villagers: 4 Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI.

A 500 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. The Arsiron Nilogon unit at Bengena Ati High School

Awareness cum Training Program 24:

Venue: Jogigaon LP School, Bongaon, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 25 Teachers- 6 (including teachers from other schools) Guardians & villagers: 6

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 40 L small community Arsiron Nilogon unit was installed and the use of the Arsiron Nilogon method was demonstrated.

1. The Head Master and some students with an Arsiron Nilogon unit at Misamari

Awareness cum Training Program 25s:

Venue: Misamari LP School, Bongaon, Majuli Date: 3/6/2016 Time: 11:00 AM – 1:00 PM Speaker: Dr Robin Kumar Dutta Participants: Students - 50 Teachers- 6 (including teachers from other schools) Guardians & villagers: 5

Demonstration: By the Project Assistant (PA), Mr. Anup J. Bora, Research Scholar, TU and the PI. A 50 L small community Arsiron Nilogon unit was installed and the use of the Arsiron

Nilogon method was demonstrated.

1. The Head Master and some students with an Arsiron Nilogon unit at Misamari

Awareness & Workshops programs on Arsenic and Arsiron Nilogon organized by others: (Indicative of success of the project)

The following workshops on Awareness about Arsenic and Arsiron Nilogon have been organized by others within about 2 months after completion of the project till writing of this report:

1. Kaithalkuchi, Nalbari:

Organizer: District Authority, Nalbari District

Venue: Kaithalkuchi Centre

Date: 27 Aug, 2016

Resource person: Dr. Robin K. Dutta, PI

Participants: 500 including teachers of 21 arsenic affected schools, Gram Panchayat members, etc. Demonstration: Arsiron Nilogon method was demonstrated with 20 L units by Anup J. Bora (RS), Dr. Suresh Kumar Nath and Mr. Sadulla Ali

A part of the participants

The PI speaking at the program

Anup J. Bora (RS), Dr. Suresh Kumar Nath and Mr. Sadulla Ali demonstrated Arsiron Nilogon

2. Chamua, Bihpuria, Lakhimpur:

Organizer:	B. College of Agriculture, Assam Agricultural University	
Venue:	NICRA village, Chamua, Narayanpur Block, Lakhimpur	
Date:	30 Sep 2016	
Description nervous Dr. Debin K. Dutte (DI) and Dr. Dellah K. Shamea		

Resource person: Dr. Robin K. Dutta (PI) and Dr. Pallab K. Sharma

Participants: 500 including teachers of 21 arsenic affected schools

Demonstration: 100 Arsiron Nilogon Kits made available by Sun Scientific, Lakhimpur were bought by the organizers and distributed to schools of the Narayanpur Block. Some more Kits were also sold. A 500 L unit was installed at the nearby Chamua LP school by the college with funding from AAU. Arsiron Nilogon method was demonstrated with 500 L and 20 L units by Anup J. Bora (RS), and Dr. Prashanta K. Neog.

1. The PI speaking at NICRA village, Chamua

2. A section of the participants at NICRA village, Chamua

3. The 500 L Arsiron Nilogon Unit at Chamua LP

3. Dowarpar, Lakhimpur:

- Organizer: Some youths trained by us on Arsiron Nilogon
- Venue: Dowarpar LP school, Lakhimpur
- Date: 1 Oct 2016
- Resource person: Dr. Robin K. Dutta (PI)
- Participants: 100 including teachers, villagers and Gram Panchayat members.

Demonstration: Arsiron Nilogon method was demonstrated with 40 L units by Anup J. Bora (RS).

1. A part of the participants at Dowarpar

2. The PI speaking at the program

3. The method was demonstrated by Mr Anup J. Bora, a Research Scholar

4. Majuli College, Majuli:

IQAC of the College and the Principal of the College
College Auditorium, Majuli College
14 Oct 2016
n: Dr. Robin K. Dutta (PI)
500 including college students and teachers, Teachers of some schools, villagers,
PHED personels, etc.
No demonstration was done.

1. The PI speaking as the resource person at Awareness meeting on arsenic and arsenic removal at Majuli College

2. A section of the participants at Majuli College

3. A section of the participants at Majuli College

5. Chinatoli, Golaghat:

Venue: Chinatolia LP School

Date: 27 Oct 2016

Organizers: Jawahar Navoday Vidyalay, Cinatolia, Golaghat

Resource person: Anup J. Bora (PhD Student of the PI)

Demonstration: A 200 L Arsiron Nilogon unit was installed by the school with the help of Anup J. Bora and Rajkamal Mohan (RS). They demonstrated Arsiron Nilogon using the unit.

1. Teacher & students of JNV and the teachers and guardians of Chinatoli LP with Arsiron Nilogon Unit sponsored by the School teachers

2. A local social activist (Mr. Ananta Saikia) speaking at Chinatoli LP

3. A local College teacher (Dr. Subhanshu Dutta) speaking at Chinatoli LP

News paper coverage of the project work:

The news about our workshops were published in different news papers several times. Though we were told by others about it we could not collect the newspaper cuttings. We have however got some newspaper cuttings about two awareness programs on arsenic and Arsiron Nilogon where the PI was the only resource person. These paper cuttings have been included in the report. These workshops reflects an impact of our work especially under the NCSTC project.

Concluding remarks:

Continuation of the Arsenic removal works using Arsiron Nilogon by various organizations in Assam including academic institution, e.g., Assam Agricultural University, Majuli College, Jawahar Navoday Bidyalay; District Administration of Nalbari; and Youth NGO of Dowarpar, Lakhimpur and invitation to the PI as resource person, usually as the sole resource person, after completion of the project, is certainly an outcome of the present project.

Acknowledgements:

- We gratefully acknowledge the NCSTC for providing the project grant that has immensely helped us in carrying forward our Arsenic removal work with Arsiron Nilogon to help the poor arsenic affected villagers, particularly the children of the schools in arsenic affected areas of Assam.
- We have received full cooperation from the Office of the Dean of Research and Development and Finance Office of Tezpur University during the project work.
- We are also thankful to a large number of teachers from the schools where we have conducted workshop or awareness cum training programs and installed Arsiron Nilogon units for their cooperation and enthusiasm.
- We also are thankful to some social activists who have greatly helped us in reaching out to the schools and people in the affected areas and have been promoting the work.
- We are thankful to the small entrepreneurs who have started supply of Arsiron Nilogon Kits to the users.
- We also are thankful to Chemical Research Society of Assam, Guwahati; BN College of Agriculture, Assam Agricultural University; Nabajyoti College, Kalgachia; Majuli College, Kamalabari; Jawahar Navoday Bidyalay, Golaghat; Youth NGO of Dowarpar, Lakhimpur; The District Authority of Nalbari for taking initiative in Arsiron Nilogon in their areas.
- I thank the project assistants, Mr. Gautam Barua and Ms Rajuta Devi for their help.
- Lastly, I thank my PhD students, Mr. Anup Jyoti Bora, Dr. Sweety Gogoi, Mr. Rajkamal Mohan and Ms Barsha Ritu Goswami for their great selfless contribution for the project work.

Date:

UTILISATION CERTIFICATE (TWO COPIES) FOR THE FINANTIAL YEAR 2016-2017 (ENDING 31ST MARCH)

1.	Title of the Project:	Popula metho Assan	Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon, at the Arsenic affected rural areas of Assam							
2.	Name of the Institution:		Tezpur University							
3.	Principal Investigator	•••	Dr. Robin Kumar Dutta Professor, Department of Chemical Sciences, Tezpur University, Napaam, Tezpur, Assam, PIN- 784028, Ph. 9435006674, E-mail: robind@tezu.ernet.in							
4.	Dept. of Science & Technology letter No & date sanctioning the project: CO/P/FP/G80/2013, (DST/NCSTC), Dated 16/6/2014									
5.	 Head of account as given in the original Sanction: Demand No. 86, DST 3425 Other Scientific Research (Major Head) 60 Others (Sub Major Head) 60.200 Assistance to other scientific bodies (Minor Head) 68 Grant-in-aid for S&T programmes for Socio-Economic development 68.05 S & T Communication and Popularization 68.05.31 Grant-in –aid for the year 2016-2017 (Plan) 									
6.	Amount brought forw year quoting DST lett authority to carry forw	vard fro ter No a ward th	m the previous finan and date in which the e said amount was gi	cial i ii ven iii	₹ 2,99,317.00 Letter No. CO/P/FP/G80/2013 Date. 08/12/2015					
7.	Amount received dur year (Please give No sanction letter for the	ing the & Date amoun	financial of DST's t)	i ii iii	Nil NA NA					
8.	Total amount that wa (excluding commitme (S No 6+7)	s availa ents) D	able for Expenditure uring the financial ye	ear	₹ 2,99,317.00					
9.	Actual expenditure (e Incurred during the fi March)	excludir nancial	ng commitments) year (upto 31 st		₹ 2,99,317.00					
10.	Balance amount avail financial year	lable at	the end of the	Nil						
11.	Unspend balance refu (Please give details of	inded if f chequ	f any e No. etc)	Nil						
12.	Amount to be carried financial year (if appl	l toward licable) F	to the next B (mms trance Officer tour Million in	NA	A-1					

UTILISATION CERTIFICATE

Certified that out of \exists Nil of grant-in-aid sanctioned during the year 2016-2017 in favour of Dr. Robin Kumar Dutta, Professor, Department of Chemical Sciences, Tezpur University under this Ministry / Department Letter No *CO/P/FP/G80/2013*, (*DST/NCSTC*), *Dated 08/12/2015* and \exists 2,99,317.00 on account of unspent balance of the previous year, a sum of \exists 2,99,317.00 has been utilized for the purpose of implementing the project entitled "Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon, at the Arsenic affected rural areas of Assam" for which it was sanctioned and that no balance is remaining unutilized at the end of the year.

monto

Signature of Principal Investigator Date 5/9/2006

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Signature of Registrar/ Accounts Officer with Date Finance Officer Tezpur University

Signature of Head of the Institute with Date Registrar Tezpur University

(TO BE FILLED BY DST)

2. Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been fulfilled / are being fulfilled and that have exercised the following checks to see that the money was actually utilized for the purpose of which it was sanctioned:-

Kinds of checks exercised

Signature Designation Date

Detailed statement of expenditure of Project:

Period: 16/6/2014-15/8/2016 (Complete 2 year {+ extended 2 month} tenure of the project)

Name of the PI: Dr. Robin Kumar Dutta, Professor, Department of Chemical Sciences, Tezpur University Title of the project: Popularization of an Integrated Arsenic and Iron removal method, 'Arsiron Nilogon, at the Arsenic affected rural areas of Assam Date of start of the project: 16/6/2014; Scheduled date of completion: 15/6/2016; Extended date of completion: 15/8/2016

SI.	Sanctioned	Funds Allocated (in ₹)	Funds Received (in ₹)	Expenditure incurred (₹) year-wise			Total	Balance as	Required	Remarks (if any)
No.	Heads			l Year (16/6/2014- 31/3/2015)	II Year (1/4/2015- 31/3/2016)	III Year (1/4/2016- 15/8/2016)	Expenditure incurred (₹)	(15/8/2016) (₹)	6)	(It any)
1	Salaries	192000.00	*	61419.00	83733.00	40000.00	185152.00	*	NA	*Head-wise break up was
2	Printing and	80600.00	*	0.00	27276.00	39554.00	66830.00	*	NA	not specified for the received fund.
	Troval	60000.00	*	25140.00	23471.00	11196.00	59807.00	*	NA	
3	Workshops	190000.00	*	0.00	113867.00	58515.00	172382.00	*	NA	**The received amount was less than the allocated amount: The total amount allocated (.anctioned) = ₹ 942810.00 The total amount received = ₹ 813040.00 and The total expenditure
5	Models and	238500.00	*	10890.00	46407.00	91183.00	148480.00	*	NA	
6	Kits Chemicals Analytical	36000.00	*	21845.00	3125.00	9865.00	34835.00	*	NA	
7	Contingencies	20000.00	*	10000.00	Nil	9944.00	19944.00	*	NA	
8	Permanent	40000.00	*	39950.00	Nil	Nil	39950.00	*	NA	
0.1.	equipment	\$57100.00	*	169244.00	297879.00	260257.00	727380.00	*	NA	incurred
Subtotal		85710.00	*	29150.00	17450.00	39060.00	85660.00	*	NA	= ₹ 813040.00 Balance as on 15/8/2016 = Nil.
Total		942810.00	813040.00	198394.00	315329.00	299317.00	813040.00	0.00**	NA	

Signature:

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(ROBIN K. DUTTA) PI ごくつ/しのし

1.9.11.

Finance Officer Tezpur University Finance Officer Tezpur University

Date

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