

Mahanadi Coalfields Limited
(A subsidiary of coal India Limited)
PH-06645-233218, 06645-233451

ମହାନଦୀ କୋଲଫିଲ୍ଡସ୍ ଲିମିଟେଡ୍

महानदी कोलफील्ड्स लिमिटेड

Fax- 06645-233353

OFFICE OF THE PROJECT OFFICER
LILARI OPENCAST PROJECT
LAKHANPUR AREA
PO- JORABAGA, VIA- BELPAHAR
Pin- (768 217)
DIST-JHARSUGUDA, (ODISHA)
(AN ISO 9001 & 14001 CERTIFIED MINE)



MCL

Ref.No.MCL/LKPA/LILARI/PO/Envt./2019/ 233

Dt. 29/ 11/2019

To,

**The Additional Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change Regional Office (EZ),
A/3, Chandrasekharpur, Bhubaneswar – 751023.**

Kind Attention:

**The Director (S) MoEF,
Eastern Zone Chandrasekharpur,
Bhubaneswar-751023**

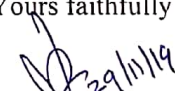
Sub: - Submission of Half Yearly Compliance of Environmental clearance condition in respect of Lilari Opencast Mine.LKPA (For the period of APR 2019 to SEPT. 2019).

Dear Sir,

Please find enclosed herewith the Half Yearly Compliance Report along with monitoring report of air, water, noise & effluent quantity in respect of Lilari Open Cast Mine, LKPA for the period of 1st APR 2019 to 30th SEPT. 2019

This is for your kind information.

Yours faithfully


Project Officer
Lilari OCP

Copy to: -

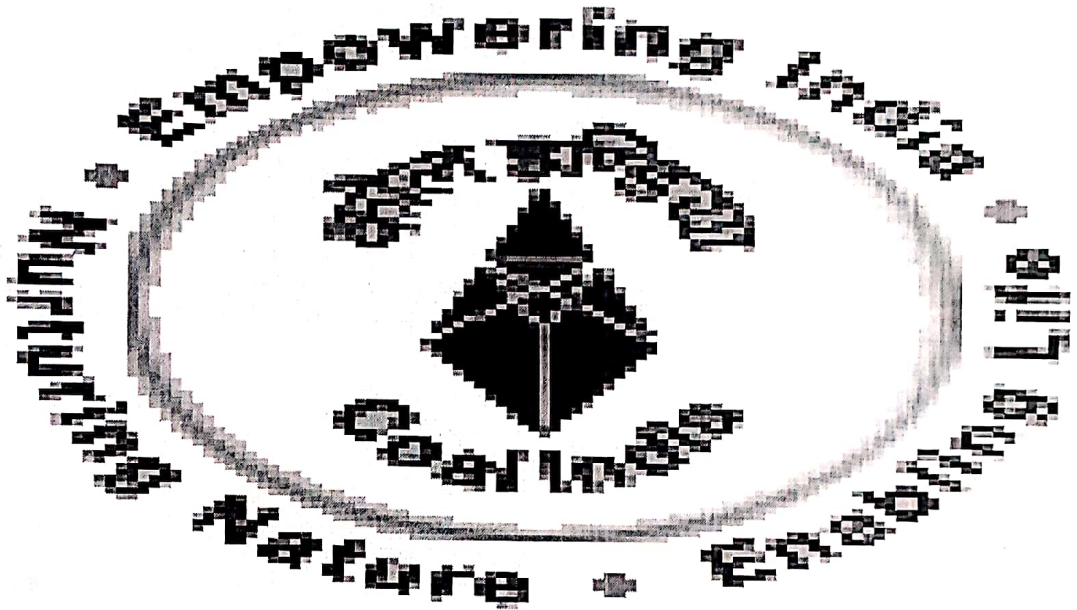
- 1 Chairman, Orissa Pollution Control Board, ParibeshBhawan, A/ 118, Nilakanthanagar, Unit- VII, Bhubaneswar-751012 (Orissa).
2. Additional Director (S), MOEF, ParyavaranBhawan, CGO Complex, Lodhi Road, New Delhi
3. Regional Officer, The Regional Officer, SPCB.Odisha. PlotN0.370/5971, At-Babubagicha (Cox colony) St Marry Hospital Road Post-Industrial Estate Jharsuguda-768203.
- 4 General Manager (Envt), MCL HQ. Burla.
- 5 AEO, Lakhanpur Area.
- 6 General Manager, Lakhanpur Area
- 7 File.

HALF YEARLY REPORT

ON

ENVIRONMENTAL CLEARANCE CONDITION

HALF YEAR ENDING APR-2019 TO SEPT-2019



LILARI OPENCAST PROJECT

LAKHANPUR AREA

HALF YEARLY COMPLIANCE REPORT

ON

THE IMPLEMENTATION OF THE CONDITIONS BY MOEF

WHILE GRANTING ENVIRONMENTAL CLEARANCE

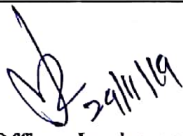
(APR-2019 to SEPT-2019)

Name of Project: Lilari Open Cast Project.

No. & Date of MOEF Clearance letter J-11015/27/89/-IA dtd 30.07.1990

Sl.	Details of Specific Conditions	Status of Implementations of the Conditions																																				
1	Step pyramid method would be followed for dumping of overburden outside the mine area to ensure that the reclamation of dump is carried out simultaneously with the construction of this dump.	<p>No external dumping is being done .The external OB dump of 25.40Ha is already biologically reclaimed.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Ext.Dump Area</th> <th>No. of Trees</th> </tr> </thead> <tbody> <tr> <td>92-93</td> <td>4.00 Ha</td> <td>8546</td> </tr> <tr> <td>93-94</td> <td>7.20 Ha</td> <td>28451</td> </tr> <tr> <td>94-95</td> <td>5.00 Ha</td> <td>13000</td> </tr> <tr> <td>95-96</td> <td>2.70 Ha</td> <td>6254</td> </tr> <tr> <td>96-97</td> <td>6.50 Ha</td> <td>16000</td> </tr> <tr> <td>Total</td> <td>25.40 Ha</td> <td>72251</td> </tr> </tbody> </table>	Year	Ext.Dump Area	No. of Trees	92-93	4.00 Ha	8546	93-94	7.20 Ha	28451	94-95	5.00 Ha	13000	95-96	2.70 Ha	6254	96-97	6.50 Ha	16000	Total	25.40 Ha	72251															
Year	Ext.Dump Area	No. of Trees																																				
92-93	4.00 Ha	8546																																				
93-94	7.20 Ha	28451																																				
94-95	5.00 Ha	13000																																				
95-96	2.70 Ha	6254																																				
96-97	6.50 Ha	16000																																				
Total	25.40 Ha	72251																																				
2	When the mine exhausts, the exposed coal faces on the dip and two high walls on the side (approx. of thickness of 29 meters) will be covered with top soil and sub-soil to prevent any danger of spontaneous heating and subsequent environmental insecurity.	<p>All the mining operation are closed since 01.04.2018. Bottom coal seam " IB seam and Rampur seam" will be extracted as per approved PR & Mining Plan of Integrated Lakhanpur-Belpahar- Lilari OCP(40 MTY). So, at the time high walls are not covered with top soil to minimise rehandling of OB. The mine is currently used as sump for accumulation of rain water.</p>																																				
3	The mine water quality shall be monitored during monsoon and these results shall be submitted to Ministry of Environment and Forests. In case concentration of certain pollutants exceeds the prescribed limits, detailed measures for treating the water to bring it within the prescribed limits shall also be outlined. <u>Nitrate content in the water should also be determined.</u>	<p>The Mine water quality is monitored fortnightly. Sufficient numbers of air and water monitoring stations have been set up and monitoring is being carried out by CMPDIL. Records of the monitoring data are regularly sent to SPCB and MOEF .The mine water quality during monsoon period as below :</p> <p>PH value= 7.2 NOx value=23.21 Other values are within the prescribed limits</p>																																				
4	Reclamation of quarry area would be carried out as per plan incorporated in the EMP.	<p>Concurrent back filling was done in 38.80 Ha. Out of which 26.00 Ha of the backfilled area is biologically reclaimed. Remaining 12.80Ha. is active , which will be used for internal dumping later on.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>BF Area in Ha</th> <th>No.of Trees</th> </tr> </thead> <tbody> <tr> <td>96-97</td> <td>1.00</td> <td>1600</td> </tr> <tr> <td>98-99</td> <td>6.90</td> <td>18965</td> </tr> <tr> <td>99-2K</td> <td>4.00</td> <td>5600</td> </tr> <tr> <td>2K-01</td> <td>3.60</td> <td>5600</td> </tr> <tr> <td>04-05</td> <td>3.50</td> <td>8750</td> </tr> <tr> <td>05-06</td> <td>1.00</td> <td>2500</td> </tr> <tr> <td>09-10</td> <td>2.00</td> <td>5000</td> </tr> <tr> <td>10-11</td> <td>4.00</td> <td>10000</td> </tr> <tr> <td>16-17</td> <td>---</td> <td>----</td> </tr> <tr> <td>17-18</td> <td>---</td> <td>----</td> </tr> <tr> <td>Total</td> <td>26.00</td> <td>58015</td> </tr> </tbody> </table>	Year	BF Area in Ha	No.of Trees	96-97	1.00	1600	98-99	6.90	18965	99-2K	4.00	5600	2K-01	3.60	5600	04-05	3.50	8750	05-06	1.00	2500	09-10	2.00	5000	10-11	4.00	10000	16-17	---	----	17-18	---	----	Total	26.00	58015
Year	BF Area in Ha	No.of Trees																																				
96-97	1.00	1600																																				
98-99	6.90	18965																																				
99-2K	4.00	5600																																				
2K-01	3.60	5600																																				
04-05	3.50	8750																																				
05-06	1.00	2500																																				
09-10	2.00	5000																																				
10-11	4.00	10000																																				
16-17	---	----																																				
17-18	---	----																																				
Total	26.00	58015																																				
5	All other pollution control measures listed in the Environmental Management plan would be strictly implemented as per schedule.	<p>All other pollution control measures listed in the EMP are implemented as per schedule. Ambient air quality, Noise level, Wastewater quality are being monitored by CMPDI on regular basis. Mine is closed since 01.04.2018.</p>																																				

6	A periodic progress report regarding implementation of the control measures shall be submitted to this Ministry every three months.	A progress report of implementation of conditions is being furnished to the MOEF, Bhubaneswar.																								
7	The effluents discharge will conform to the standards prescribed by central/state pollution control Board and /or under environment (protection) Act 1986. Sufficient number of air and water quality monitoring station will be set up.	As the mine is closed since 01.04.2018, no effluents are being generated. One nos. of Air monitoring station is located at "South - West of mine" and One nos. of Water quality monitoring station is located in front of Project Office, Lilari OCP																								
8	Regular monitoring of various environmental quality parameters would be carried out by the project authorities and the results of the monitoring would also be included in the quarterly progress report to be submitted to this Ministry.	<p>Monitoring of air quality, water quality and noise level study are being carried out by Central Mine Planning & design Institute Limited, Bhubaneswar. The report of environmental monitoring from APR.-19 to SEPT -19 is enclosed herewith.</p> <p>(a) Ambient air quality of one station at South - West of mine. In the month of Sept. 2019</p> <table border="1" data-bbox="582 683 1428 772"> <thead> <tr> <th>SPM</th> <th>RPM</th> <th>SO2</th> <th>NOx</th> </tr> </thead> <tbody> <tr> <td>66</td> <td>18</td> <td>8.8</td> <td>23.21</td> </tr> </tbody> </table> <p>(b) Water quality of O&G trap outlet= no formation of effluents.</p> <p>(c) Noise level of one station.</p> <table border="1" data-bbox="582 817 1396 974"> <thead> <tr> <th>South-East Of mine</th> <th>Noise-day in dB(A)leq</th> <th>Noise. night in dB(A)leq</th> </tr> </thead> <tbody> <tr> <td>Average</td> <td>63.7</td> <td>60.4</td> </tr> </tbody> </table> <table border="1" data-bbox="582 996 1396 1176"> <thead> <tr> <th>Month</th> <th>Location</th> <th>PH</th> <th>PM2.5 Max.& Min.</th> <th>Noise Max& Min</th> </tr> </thead> <tbody> <tr> <td>Average</td> <td>Mine Sump Water</td> <td>7.22</td> <td>18-27</td> <td>69.6-60.4</td> </tr> </tbody> </table>	SPM	RPM	SO2	NOx	66	18	8.8	23.21	South-East Of mine	Noise-day in dB(A)leq	Noise. night in dB(A)leq	Average	63.7	60.4	Month	Location	PH	PM2.5 Max.& Min.	Noise Max& Min	Average	Mine Sump Water	7.22	18-27	69.6-60.4
SPM	RPM	SO2	NOx																							
66	18	8.8	23.21																							
South-East Of mine	Noise-day in dB(A)leq	Noise. night in dB(A)leq																								
Average	63.7	60.4																								
Month	Location	PH	PM2.5 Max.& Min.	Noise Max& Min																						
Average	Mine Sump Water	7.22	18-27	69.6-60.4																						
9	The project will have an Environmental Cell for monitoring quality of water, air, solid wastes, greening and other action plans for protection of environment.	Environmental Management Cell has been constituted at project level, area level as well as corporate level and designation as below : Project Office- Project Manager, Area - Area Environment Officer and GM (Envnt) on corporate level under the control of CMD, MCL.																								
10	This Ministry may stipulate any other conditions as may be required in the interest of environment protection.	If the ministry stipulate any other conditions, It is agreed to implement the same for the environment protection.																								
11	The implementation of these conditions and safeguards will be ensured, among other under the provisions of the Environment (Protection) Act, 1986.	It is assured and the implementation of these conditions and safeguards will be ensured.																								


 29/11/19
 Officer In charge
 Lilari OCP



REPORT-I

MINISTRY OF ENVIRONMENT & FOREST, REGIONAL OFFICE
MONITORING PROFORMA PART-I (DATA SHEET)

1. No of villages affected: One
2. Project type: River-Valley/Mining Industry/
Thermal/Nuclear/other (specify) Mining
3. Name of the Project:
Mine Lilari Opencast
4. Clearance letters (S) OM No. & date: J-11015/27/89/-IA dt.30.07.1990 & Consent to operate
for air & water letter No-3165 IND-1-CON-1219 Dt:-28.03.2019
5. Location
 - a) District (s) Jharsuguda
 - b) State(s) Orissa
6. a) Address of concerned Project Chief Engineer
(With pin code and telephone/telex/fax nos) Project Officer
At/Po-Jorabaga, Belpahar
Dist-Jharsuguda, Orissa, Pin-768217
Ph-06645-605922
- b) Address of Executive Project Engineer/Manager
(with pin code and telephone/telex/fax nos.) -do-
7. Salient features
 - a) of the Project Attached in separate sheet
 - b) of the Environmental Management Plans Attached in separate sheet
8. Breakup of the project area
 - a) Submergence area (Forest and Non-Forest) Nil
 - b) Others Forest-162.20 Ha. Total-204.28 Ha
Non Forest- 42.08 Ha.
9. Breakup of the project affected population, with enumeration of
Those losing houses/dwelling units only, agricultural land only, both
Dwelling units and agricultural land and less labors/artisans
 - a) SC,ST/Advises ST-39 Families
 - b) Others
10. Financial Details
 - a) Project cost as originally planned and subsequently revised
Estimates and the years of price reference Rs.59.1397 crores year-31.03.2017
 - b) Allocation made for environmental management plans,
with item wise and year wise break-up Rs. 44.75 Lakhs
 - c) Benefit cost ratio/internal rate of return and the year of assessment
Cost-Rs. 1244.25/Te(2017-18)
Profit- Rs. 82.85/Te(2016-17)
 - d) Whether 9(c) includes the cost of environmental
Management as shown in (b) above Yes
 - e) Actual expenditure incurred on the
 - i) Project so far Rs. 59.1397 crores
 - ii) Environmental management plans so far Rs. 181.50 Lakhs
11. Forest land requirements
 - a) The status of approval of diversion for non-forestry use 162.20 Ha already diverted

- b) The status of clear felling
 c) Comments on the viability and sustainability of
 Compensatory a forestation programme in the light of
 Actual fields experience so far
- Viable & sustainable (done by
 State Forest Dept. under DFO,
 Sambalpur (North) Division.

12. Status of construction

- a) Date of commencement (actual and/or planned) 10.06.1988
 b) Date of completion (actual and/or planned) 31.03.2018
 c) Present status of the Project All mining activities are
 Closed from 01.04.2018

REPORT-II

**PROFORMA FOR PROVIDING INFORMATION ON
 REHABILITATION**

- 1) No. of villages affected One
 2) Families affected 39 Families
 3) Compensation package offered per family

State/Centre Norms	Project package
---	---

4) Budget estimate for rehabilitation

- a) Total outlay Rs. 43,79,240.03
 b) Amount paid/used Rs. 43,79,240.03

5) Employment details

- a) Total employment to be provided NIL
 b) Employment given so far 50 persons

6) Rehabilitation & Resettlement details

- a) No. of families rehabilitated
 i) Name of the site Belpahar Rehabilitation
 Site (Kadalimunda)
 ii) Families Rehabilitated 39 families

7) Any other information ---

REPORT-III

**MINISTRY OF ENVIRONMENT & FOREST
EASTERN REGIONAL OFFICE
A/3, CHANDRASEKHARPUR, BHUBANESWAR-751023 (ORISSA)**

FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/

PLANTATION UNDER F (C) ACT 1980 AND E (P) ACT 1986

1. a) Name of the organization Lilari Opencast Project
 b) Env't. / Forest clearance order Nos J-11015/27/89/-IA dated
30.07.1990
8-281/89-FC dated 31.07.1990
2. Location, Block/Sub. Div./Dist/State Jorabaga,
Belphar/Jharsuguda/Odisha
3. Address for communication At/Po-Jorabaga, Via Belphar
Dist-Jharsuguda, Orissa Pin-768217
4. Existing vegetation in the area/region
 a) Species(Trees/Shrubs/Grasses/Climbers)Char, Mahua, Kendu, Asan, Kadada
Khair etc
 b) Major prevalent species of each type Same as above only in Shrubs
5. Land coverage by the Project
 a) Total area under the Project 204.28 Ha
 b) Area covered for basic in fracture (Roads/
Buildings/Factory etc. 63.30 Ha
6. Details about Natural vegetation
 a) Name and number of tree/species felled Char, Mahua, Kendu, Asan,
Kadada, Khair etc
 b) Name and number of plants species still Same as above only in Shrubs
Available in the area
 c) By protecting the area will indigenous stock same as above
Come up
7. Extent of green belt developed 122.50 Ha
8. Plantation required to be carried out as per
 a) Condition of Environment clearance in Ha/Nos 2500 Nos/Ha
 b) Condition of Forest (c) Act clearance Ha. /Nos Not mentioned
 c) Voluntarily in Ha. /Nos 2500 Nos/Ha
9. Details about plantation
 (a) Total area available for plantation in each category
 i) Green belt -----
 ii) Dumps 25.40 Ha
 iii) Back filled area 26.00 Ha
 iv) Road sides -----
 v) Blocks plantation 71.10 Ha

(b) Plantation details (Category wise & Methodology used)

Year of plantation	Species planted	Spacing	Height attained	Total Area covered	Purposed plantation programme 2019-20
From 1992 to 2016-17	Behera, Karanj, Neem, Harra, Bel, Cashew, Jammu, Ber etc	2m	5m to 19m	122.50 Ha	Nil
2017-18	Nil	Nil	Nil	Nil	Nil

(C) Survival % of Plantation

83% Approx.

10. Agency carrying out plantation and maintenance Chhattisgarh Rajya Van Vikas Nigam Limited

11. Financial details (Year wise and item wise)

Sl No.	Year	Expenditure made	Average cost of each surviving plant in Rs.
01	1992-93 to 2004-05	Rs. 69.35 Lakhs	Rs.32.50
02.	2005-06 to 2006-07	Rs. 3.31 Lakhs	Rs.33.00
03	2007 -08	Rs. 0.92 Lakhs
04	2009-2010	Rs5.02 Lakhs	Rs37.63
05	2010-2011	Rs3.07 Lakhs	Rs23.62
06	2011-2012
07	2012-13
08	2013-14	-----	-----
09	2014-15	Rs.10,000	
10	2015-16	Rs.2.54425 Lakhs	-----
11	2016-17	-----	-----
12	2017-18	-----	-----

12. Inspection of plantation by field experts and
Their comments and follow up action

Inspection made by
Divisional Forest Officer
Sambalpur Division.

13. Remarks/any other information.


29/11/19

Signature of the Officer In charge.



SALIENT FEATURE OF THE PROJECT

1. Name of the Colliery	Lilari Opencast Project
2. Date of approval	28/8/1987
3. Date of Opening	10/06/1988
4. Permission obtained for mining	Upper & Lower Lajkura
5. Total Area	204.28
6. Safety Zone Area	162.20 Ha
7. Mining Area	63.30 Ha
8. Floor Area	44.25 Ha
9. Average Thickness of Seam	26.00 M.
10. Gradient	1 in 11.2
11. Strike Length	700 M
12. Minimum Quarry Depth	10 M.
13. Maximum quarry Depth	68 M to 90 M.
14. Quarry Perimeter	3500 M.
15. Mine able Reserves	0.77 MT
16. Overburden	Insitu-1.25 M Cum(as per mining plan) Rehandling-0.598 M Cum
17. Stripping ratio (As per P.R)	1.44 Cum/Te Av
18. Mine Capacity	0.80 MT/Year
19. Mine Life	29 years, Up to 2017-18 Years (Mine is closed from 01.04.2018)
20. Quality (Grade)	50% F & 50% G(G-14)
21. Total Manpower	22
22. O.M.S	NA
23. Initial Capital Outlay	19.7845 Crores.



SALIENT FEATURE OF THE ENVIRONMENTAL MANAGEMENT PLAN

1. No & date of EMP Clearance J-11015/27/89/IA dt.30.07.1990
2. No & date of Forest clearance 8-281/89-FC
dt.31.07.1990
3. Total Land involved 204.28 Ha
4. Tenancy Land 25.36 Ha
5. Govt. Non-Forest Land 16.72 Ha
6. Forest Land (released/diverted) 162.20 Ha
7. Mining 33.56 Ha
8. Safety Zone 128.64 Ha
9. Total Area to be Excavated 63.30 Ha
10. Area to be Reclaimed after Back filling 39.00 Ha
11. Water Body 6.80 Ha
12. Dip Side Pit Slope & Haul Road Area 9.20 Ha
13. Average Rainfall per annum(16-17) 1286MM
14. Temperature (Maximum) 48 Deg. C
15. Temperature (Minimum) 13.6 Deg. C
16. Total Capital Expenditure in Environmental Head Rs.120.84 Lakh
(in the year 2017-18)



MAHANADI COALFIELDS LIMITED
LILARI OPENCAST PROJECT, LAKHANPUR AREA
Ambient Air Quality Report at Lilari OCP by CMPDIL, Regional Institute of Bhubaneswar

South East of LILARI OCP.
 From – APR-2019 to SEPT-2019

Date	Monitoring Station	Direction from the source	Dust generating source	Distance from DGS	SPM (Ug./m ³)	PM 10	SO ₂	NO _x	PM2.5
			COPY	ENCLOSED	Annexure 1				

Effluent Quality Report at Lilari OCP by CMPDIL, Regional Institute of Bhubaneswar

From – Apr-2019 to Sept-2019

Date of sampling	Sampling Station	PH	Oil & Grease	TSS	COD	BOD
Mining operation in Lilari OCP have been stopped from 01.04.2018 and there is no formation of Effluent.						

Ambient Noise Level Report at Lilari OCP by CMPDIL, Regional Institute of Bhubaneswar

From – Apr-19 to Sept-2019(South East of mine)

Date	Station	Noise-day in dB (A) Leq	Noise-Night in dB (A) Leq
	COPY Enclosed Annexure-1		

MAHANADI COALFIELDS LIMITED
LILARI OPENCAST PROJECT
LAKHANPUR AREA

2019-2020

<u>Calendar Plan on Production</u> Month	Tgr .of O/B	Actual Production of O/B(in Cu.M)	Tgr.of Coal	Actual Production of Coal(in Tonne)
OCT-19	NIL	NIL	NIL	NIL
NOV-19	NIL	NIL	NIL	NIL
DEC-19	NIL	NIL	NIL	NIL
JAN-20	NIL	NIL	NIL	NIL
FEB-20	NIL	NIL	NIL	NIL
MAR-20	NIL	NIL	NIL	NIL
Total	NIL	NIL	NIL	NIL


29/11/19

Project Officer ,Lilari OCP,LKPA

