

# Grant Agreement

The

**The Foundation for Ecological Security (FES)  
A1 Madhuram Park, Near Srinathji Society, Ganesh Crossing  
Anand- 388001  
INDIA**

- hereinafter referred to as "the Recipient" -

and

**Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH  
Dag-Hammarskjöld-Weg 1 - 5  
65760 Eschborn  
Federal Republic of Germany**

- hereinafter referred to as the "GIZ" -

herewith enter into the following Agreement for the Project

**"Soil Protection and Rehabilitation for Food Security in India-  
Mahakaushal region of Madhya Pradesh (Mandla and Balaghat  
districts)" ProSoil MP**

Country: India

## Communication details (must be quoted in all correspondence and invoices)

Contract number: 81229528  
Project processing number: 14.0156.1-105.00

### Unit responsible for the budget

Organisational unit: 2100  
Responsible officer: D. Walther

### Procurement and Contracting

Organisational unit: E260  
Responsible officer: Sylwia Plaza / E260-SYP

### Financial processing of the contract

Responsible officer: J. Kemle

EINGANG  
Einkauf und Verträge  
05. Nov. 2018  
- 22 A. C. A. Tilghman  
changes ok.

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices  
Bonn and Eschborn, Germany

Friedrich-Ebert-Allee 36+40  
53113 Bonn, Germany  
T +49 228 44 60-0  
F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1-5  
65760 Eschborn, Germany  
T +49 61 96 79-0  
F +49 61 96 79-11 15

E info@giz.de  
I www.giz.de

Registered at  
Local court (Amtsgericht)  
Bonn, Germany  
Registration no. HRB 18384  
Local court (Amtsgericht)  
Frankfurt am Main, Germany  
Registration no. HRB 12394  
VAT no. DE 113891176  
Tax no. 040 250 56973

Chairman of the Supervisory Board  
Martin Jäger, State Secretary

Management Board  
Tanja Günner (Chair)  
Dr Christoph Beier (Vice-Chair)

Commerzbank AG Frankfurt am Main  
BIC (SWIFT): COBADEFFXXX  
IBAN: DE45 5004 0000 0588 9555 00

The basis for the grant for FES is the commission from Federal Ministry for Economic Cooperation and Development (hereinafter referred to as BMZ) dated 21.11.2014. GIZ shall provide the grant pursuant to this agreement exclusively on behalf of and for the account of BMZ.

**Article 1**

**Amount and Purpose of the Grant**

1.1 Commissioned by the Government of the Federal Republic of Germany, the GIZ shall make available to the Recipient a grant of

**up to EUR 1.846.782,89 €**

in words: one million eight hundred forty-six thousand seven hundred eighty two and 89/100

1.2 The Recipient shall use the grant exclusively for expenditures within the Project described in Article 2 as attributed to the GIZ grant according to the budget lines below and the Schedule of Estimated Expenditures which sets out details of the Project expenditures. The Schedule of Estimated Expenditures is attached hereto (Annex 1) and forms an integral part of the Agreement.

1.	Staff / Personnel costs	up to	EUR	345.560,66 €
2.	Project Activities	up to	EUR	1.077.283,07 €
3.	Transportation / Travel Costs	up to	EUR	60.084,00 €
4.	Training Costs	up to	EUR	108.034,27 €
5.	Procurement of Goods	up to	EUR	78.777,00 €
6.	Operational Costs	up to	EUR	72.509,00 €
7.	Administration Costs (6%)	up to	EUR	104.534,88 €

1.3 The grant is made available for the period from ~~01.07.2018~~ <sup>01.07.2018</sup> ~~30.06.2021~~ <sup>30.06.2021</sup>. Only expenditures effected during this period and relating to activities carried out during this period may be financed from the grant. Otherwise the written approval of GIZ is required.

The GIZ shall have the right to refuse disbursements after ~~30.09.2021~~ <sup>31.08.2021</sup>.

*J. Changer ok as. 11.18*  
*J. Changer ok as. 11.18*

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passed on to the final recipient are used by the latter and settled in accordance with the Grant Agreement.

If the final recipient has not yet been specified when the Grant Agreement is signed, the Recipient must submit a written list of potential final recipients to GIZ and obtain GIZ's approval before passing on any of the funds.

## Article 2

### The Project

2.1 The primary aim of the Project promoted by the grant is **Sustainable and inclusive approaches for soil conservation, rehabilitation of degraded lands and to ensure implementation of technologies to improve soil health in selected locations leading to enhanced crop productivity**". This overall objective is defined by the following benchmarks:

- Tributary basin approach, focusing upon upper catchments of tributary basins. The project will be working for restoration and rehabilitation of soil in upper catchments of tributaries of Narmada river. This will ensure wider impacts over the river health in general.
- Inclusive approach-The project by design reaches out to tribal areas of Mandla and Balaghat districts which are largely situated in upper catchments of tributaries of Narmada.
- Commons paradigm- The project approach is guided by the idea of natural resources as common properties, thereby soil, land and water being considered as commons. The project will strengthen the community institutions to govern, share and restore common resources, thereby investing in sustainability of natural resource management initiative.
- Project to build upon the watershed development activities already implemented under IGWDP, WDF, and IWMP etc., thus leveraging on the soil conservation and water resource development works taken up in these projects. However, gap filling could be taken up in this project (under participatory mode)
- Trainings and demonstration on sustainable agriculture for farmers, promote use of Soil improving organic products
- Water management, water budgeting to be a part of the programme.
- Project is to try private sector participation and also to leverage upon National Mission on Sustainable Agriculture.
- Inclusive development approach with special focus on women farmers
- Mainstreaming of agricultural advisory services for the farmers through integrating the digital platform NICE



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2.2 In order to achieve this aim, the following measures are planned:

In the old project area focus will be to consolidate the interventions to ensure sustainability, this will be achieved through reinforcing the capacity of the community through follow up trainings. In the new area, the technology introduction will be the main focus: Following Measures are planned to achieve this objective

- Improvement in agriculture practices:
- Upland treatment additional 2000 hectares
- Control over invasive species and grassland restoration
- Supporting for irrigation, water management and water use efficiency
- Capacity building of community for promotion of sustainable land management
- Soil Health Monitoring
- Agromet advisories
- Documentation and dissemination
- Capacity building of staff

Details are laid down in the Project Proposal of 26 July 2018, which is attached hereto (Annex 2) and forms an integral part of the Agreement.

## Article 3

### Disbursement Procedure

3.1 After entering into the contract, but no later than with the first request for disbursement, the Recipient **shall submit a schedule of financial requirements** drawn up in the contract currency (see specimen in Annex 3) **with quarterly amounts for the entire term of the contract**, unless this has already been submitted when the contract was entered into. In accordance with the schedule of financial requirements, the Recipient **shall request quarterly disbursements** in the contract currency to the amount of the expected financial requirement for the following quarter, taking into account any funds still available. The call for each disbursement shall be submitted in one copy originally signed and must include the project number and the contract number (see specimen in Annex 3).



3.2 The amount of EUR 184.678,28 shall be withheld from disbursement.

The amount withheld shall be disbursed with the final request for disbursement as soon as all obligations by the Recipient arising from the Agreement, in particular those regarding the evidence of use of the funds for the purpose stipulated and the reporting, have been met.

3.3 All payments by the GIZ shall be made into the Recipient's account:

Account holder: Foundation for Ecological Security - FCRA  
Name and place of bank: Bank of Baroda  
NDDDB Extension Counter Branch, NDDDB Campus, Near  
Jagannath Mahadev, Khetiwadi, Anand-388001, Gujarat, India  
Account number: 98240100000033  
Account currency: INR  
Bank code:  
Swift code: BARBINBBAND  
IBAN:

The Recipient shall open a separate sub-account with its bank or a separate cost unit in its own accounts to settle the financial transactions involved in this Grant Agreement and shall confirm to GIZ that this has been done when submitting its first payment request. All the funds made available under this Grant Agreement must be accounted for separately from any funds provided by other donors.

All amounts paid by the GIZ shall remain in the afore-mentioned account as trust funds until they are used for paying the supplies and/or services to be financed from the grant.

The amounts paid into the afore-mentioned account by the GIZ shall receive interest as far as permissible within the scope of the relevant legal provisions.

The interest accruing in this connection shall be used for payment of the measures to be financed and shall be indicated separately in the submission of accounts. The GIZ reserves the right to deduct such interest from the pledged amount of the grant.



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The GIZ may at any time require prompt submission by the Recipient of a copy of the interest agreement and/or interest calculation by the bank, or confirmation by the bank that interest cannot be paid on the credit balance in the account.

- 3.4 The Recipient shall keep a separate project record exclusively for the funds disbursed by the GIZ. In this project record all receipts and expenditures related to the measures and/or expenditure categories to be financed from the GIZ grant are entered in chronological order and according to the regulations for proper and orderly accounting. These expenditures shall be subdivided into the categories specified in the Schedule of Estimated Expenditures and shall contain the following items at least:

Receipts:

- a) Entry number
- b) Date of receipt
- c) Origin of receipt
- d) Amount of and reason for receipt

Expenditures:

- a) Entry number
- b) Date of payment
- c) Recipient of payment
- d) Amount of and reason for payment

- 3.5 Except for the first and second instalment the Recipient shall submit with each call for disbursement a financial statement originally signed (see specimen in Annex 3) providing evidence of the use of the payment before the foregoing disbursement and an inventory on the goods purchased according to Article 4.4. The financial statement must be made up in the currency of the contract. The expenditures shall be entered chronologically and broken down according to expenditure categories or measures as specified in the Schedule of Estimated Expenditures (Annex 1).

If the budget lines presented in 1.2 above contains administration costs, these must be settled separately as a lump sum. The upper limits specified in the budget lines presented in 1.2 above must not be exceeded. All other cost categories shown under 1.2 above will be settled against evidence.

Any remaining funds held by the Recipient will be offset against the following disbursement. The Recipient's request shall become due upon expiry of a verification period of 15 days after the financial statement has been received. Payment shall be made by the GIZ not later than 30 days after the requests become due, to the amount established and where applicable, corrected, by the GIZ.



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- 3.6 If the Recipient does not submit a financial statement or an inventory in the correct manner or by the due date, the GIZ can suspend payments until such a financial statement or inventory is presented.
- 3.7 The Recipient shall submit proof by the bank of the amount that has been credited in the currency of account for the funds disbursed by GIZ. The expenditure in the currency of account shall be converted to the contract currency at the exchange rate resulting from the amount credited to the account and the disbursement in the currency of the contract.
- Settlements for expenditure in a currency different to the contract currency or the currency of account shall be made at the rate based on the foreign-exchange purchase vouchers presented in evidence of the amount charged. In the absence of the required documentation, the GIZ may choose either to reimburse the expenditures in foreign currency or to convert the expenditures on the basis of the exchange rate in the EU currency converter that can be accessed by the Recipient ([www.giz.de/en/](http://www.giz.de/en/), Procurement, Currency Exchange Rates) and reimburse them in the contract currency.
- 3.8 Upon completion of the Project, but not later than 8 weeks after the completion of all measures, the Recipient shall submit to the GIZ a final financial statement originally signed (see specimen in Annex 3) and provide the GIZ with evidence of how the amounts disbursed have been used. The financial statement must be made up in the currency of the contract. The expenditures shall be entered chronologically and broken down according to expenditure categories or measures as specified in the Schedule of Estimated Expenditures (Annex 1). If the budget lines presented in 1.2 above contains administration costs, these must be settled separately as a lump sum. The upper limits specified in the budget lines presented in 1.2 above must not be exceeded. All other cost categories shown under 1.2 above will be settled against evidence. Any funds remaining from the grant, including any interest accrued, shall be returned to the GIZ in the contract currency immediately and without separate request at the exchange rate resulting from the latest advance disbursement/s credited to the account (see article 3.7). To minimize the risk of repayment the recipient shall monitor the effective balance of funds before the final advance disbursement is requested.



3.9 Any financial statement shall be accompanied by copies of supporting documents for every single expenditure exceeding the amount of EUR 1.000,00.

The Recipient shall submit all documents either in German, English, French or Spanish, or shall attach a translation into one of these languages.

3.10 GIZ will commission a certified public accountant to audit the project. This audit will examine whether the measure has been implemented and administered properly and correctly in accordance with the relevant terms of this Grant Agreement in respect of cash and invoice management, the use of grant funds and the award of contracts for goods and services.

The period to be covered by the audit is shown below

01.07.2018 30.06.2019  
1. Audit period: 01.09.2018 up to 31.08.2019

01.07.2019 30.06.2020  
2. Audit period: 01.09.2019 up to 31.08.2020

01.07.2020 30.06.2021  
3. Audit period: 01.09.2020 up to 31.08.2021

*changes etc. 05.11.18*

The Recipient must permit GIZ and/or the certified public accountant commissioned by GIZ to inspect the accounts and any other documents related to the purpose of this Grant Agreement at any time.

On completion of the audit report, GIZ shall inform the Recipient of the main findings. The Recipient shall promptly implement the recommendations made by GIZ on the basis of the audit findings and provide evidence thereof if requested by GIZ.

3.11 The Recipient shall

- a) secure the full financing of the Project and, upon request, furnish the GIZ with evidence proving that all expenditures not financed from the present grant are covered;
- b) keep for five years after submission of the final financial statement books, records and the originals of the supporting documents, clearly identifying all expenditures for the services and supplies for the Project and those services and supplies financed from the grant;



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- c) document the transfer of ownership of those items which are destined for third parties according to the Project Proposal and support its financial statements with copies of such documents;
- d) enable the representatives of the GIZ at any time to consult such books and any other records and documents relevant for the implementation of the Project and to visit all installations related thereto;
- e) supply any information on the Project and its further progress which the GIZ may request;
- f) of its own accord promptly inform the GIZ of any circumstances seriously affecting or jeopardizing the accomplishment of the purpose of this Agreement or the implementation of the Project;
- g) pay, upon request, interest at a rate of 5 percentage points above the respective rate applied by the European Central Bank to its main refinancing transactions p. a. for any amount not spent for the Project according to Article 1.2 and 1.3 from the day of receipt to the day of use for expenditures within the Project;
- h) not use the grant for expenditures completely financed under other subsidies or long-term loans.

## Article 4

### Purchasing of Goods and Services

- 4.1 When awarding contracts for supplies and services to be financed in full or in part from the grant, the Recipient shall observe the regulations for public procurement which apply in India, but shall in any case comply with the provisions in Annex 4 (Award Procedure), which form a constituent part of this Grant Agreement. The corresponding documents shall be kept with the accounting vouchers pertaining to the Project (see Article 3).



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- 4.2 The Recipient shall ensure, upon entering into contracts for supplies and services to be financed from the grant, that
- a) the terms of payment of these contracts conform to customary trade practices; import duties, which may not be financed from the grant, are to be indicated separately in the contracts to be entered into and in the invoices;
  - b) the supplies to be financed are insured against transportation risks to an adequate and customary extent in order to provide for the goods to be replaced or restored to their original state, imported goods being insured in freely-convertible currencies, as far as possible;
  - c) reimbursement, insurance, security, warranty or similar payments which may be claimed on the basis of those contracts, are to be transferred to the account indicated in Article 3.3 and reemployed for the Project. The Recipient shall notify GIZ of the amount of such payments within the scope of the project reports.
- 4.3 The items procured or produced for the Project by the Recipient must be used solely for the purposes of the project. This purpose-specific stipulation shall apply for an indefinite period, subject to the stipulations of Article 4.5. If the items are used for purposes other than those for which they were intended, the Recipient shall provide GIZ with appropriate compensation for their value at a level to be set by the GIZ.
- 4.4 The Recipient is obliged to submit current inventories with the financial statement at the end of each year and with the final financial statement.
- All items financed from the GIZ grant whose purchase or manufacturing cost exceeds EUR 400.00 must be inventoried.
- With submission of the respective inventory in which the inventoried items are listed for the first time, ownership of the inventoried items is transferred from the Recipient to the GIZ to secure any claims of the GIZ against the Recipient arising from or in connection with this Agreement (incl. possible reverse handling claims), and at the same time the items shall be provided on loan to the Recipient by the GIZ until completion of the Project.

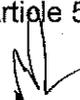


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- 4.5 After completion of the Project at the latest, the items procured or produced for the Project shall become the property of those to whom they are to be transferred in accordance with/consistent with/depending on the purpose of the Project. The GIZ and the Recipient shall agree on the final recipients in due course, at the latest prior to submission of the final financial statement. The transfer of ownership shall be noted in the financial statement and the related certificate of assignment shall be submitted.

## Article 5

### Suspension and Termination of Disbursements and Repayment

- 5.1 The GIZ shall be entitled to either suspend or terminate disbursements if
- a) the Recipient is not able to furnish evidence proving the use of the grant for the purpose stipulated in this Agreement;
  - b) goods purchased by the Recipient for the Project and financed from the grant are not used or cease to be used for the purpose of the Agreement;
  - c) the Recipient has violated any other obligation under this Agreement;
  - d) before conclusion of the Agreement or during its execution, the Recipient has given false information or withheld relevant information affecting the allocation or disbursement of the grant;
  - e) any extraordinary circumstances have arisen which preclude or seriously jeopardize the purpose of the grant, the implementation of the Project, or the performance of the obligations assumed by the Recipient under this Agreement; or
  - f) the Government of the Federal Republic of Germany terminates, suspends or modifies the relevant contract with GIZ which is the basis for this Agreement.
- 5.2 The GIZ shall be entitled to demand immediate repayment of all or part of the grant if any of the circumstances referred to in Article 5.1 a) to d) arise and have not been remedied within
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a period to be stipulated by the GIZ, which shall, however, be not less than 30 days. Where Article 5.1 a) applies, only those amounts shall be repaid for which the Recipient is unable to furnish evidence of the use for the purpose stipulated in this Agreement. Where Article 5.1. b) applies, only those amounts relating to the goods concerned shall be repaid.

## Article 6

### Implementation of the Project

- 6.1 The description of the measures in Article 2.2 including the Project Proposal (Annex 2) constitutes the binding framework for the implementation of the Project.
- 6.2 Major changes to the measures described under Section 2.2 including the Project Proposal, or major changes to the estimated expenditures, must be reported immediately to the GIZ. Such measures may be commenced only on the basis of revised planning and with the prior approval of the GIZ.
- 6.3 The Recipient shall submit half-yearly progress reports. The first report will be due at the end of 01.12.2018. The reports shall be submitted to the GIZ not later than two months after the reporting date.
- 6.4 The Recipient shall draw up a final report describing the implementation and results of the Project in the light of the aims set and submit it to the GIZ not later than two months after the completion of all measures.
- 6.5 In any publication on the Project, the Recipient shall always indicate in an appropriate manner that it is conducting or conducted its activities within the framework of a Project financed or cofinanced by the GIZ commissioned by the Government of the Federal Republic of Germany.

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**Article 7**

**Anti-bribery and anti-terrorism financing**

- 7.1 The Recipient shall ensure that the persons it entrusts with the preparation and implementation of the Project and the awarding of contracts for the provision of materials and services to be financed do not demand, accept, provide, grant, promise or accept promises for illegal payments or any other advantages in connection with these tasks.
  
- 7.2 The Recipient must take appropriate steps to ensure that it enters into business and maintains such business relations only with such third parties that are reliable and to whom no statutory ban on entering into business applies. In particular, it will ensure that the funds provided are neither directly nor indirectly made available to third parties that are listed on a sanctions list issued by the United Nations Security Council and the EU as well as the Federal Republic of Germany. Furthermore, it will ensure that it does not engage in any activity which would constitute a breach of embargoes or any other trade restrictions issued by the United Nations, the EU or the Federal Republic of Germany.
  
- 7.3 The Recipient will inform GIZ, promptly and of its own accord, of the occurrence of any event which results in the Recipient, any member of its management bodies or other governing bodies or any of its shareholders, being listed on a sanctions list issued by the United Nations Security Council, the EU or the Federal Republic of Germany.
  
- 7.4 The Recipient will inform GIZ, promptly and of its own accord, of the occurrence of any breach of a provision of this Article 7. GIZ's rights according to Article 5 remain unaffected.

**Article 8**

**Final Provisions**

- 8.1 In the event of a provision of this Agreement being invalid, this shall not affect the validity of the remaining provisions. Any deficiency in consequence thereof shall be remedied by a provision consistent with the purpose and intent of this Agreement.



- 8.2 The Recipient shall not assign or transfer, pledge or mortgage any rights under this Agreement.
- 8.3 This Agreement shall be governed by German law.
- 8.4 Place of performance for payments shall be Frankfurt am Main.
- 8.5 Place of jurisdiction shall be Frankfurt am Main, provided the Recipient is a merchant/trader, a legal entity under public law or a special fund under public law, or has no general place of jurisdiction in Germany. The GIZ may also take legal action against the Recipient at the court responsible for the Recipient's place of residence.
- 8.6 Amendments and changes to this Agreement as well as any statements and notices which shall be made under this Agreement shall only be valid in writing.

Eschborn, Date:

Madhya Pradesh, Date:

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

FES

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 .....  
 Immanuel Gebhardt  
 Contract Management  
 Director of Division  
 Procurement and Contracting

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 Contract Management  
 P. FEIEREISEN

  
 Jagdeesh Rao  
 Executive Director  
 Foundation for Ecological Security  
 Anand - 388 001.  
 FES



Annexes:

(Annexes 3 – 45 can be downloaded from [www.giz.de/financing](http://www.giz.de/financing))

- Annex 1: Schedule of Estimated Expenditures
- Annex 2: Project Proposal of 26.07.2018
- Annex 3: Financial Guidelines for Grant Agreements
- Annex 4: Award Procedure
  - 4a: Award Procedure
  - 4b: Documentation of Contract Awards

Budget / Schedule of Estimated Expenditures

Name of the Recipient: FES

Date: 23.07.2018

Description	Amount	Unit	Quantity	Unit	Unit Price in EUR (up to)	Total GIZ Contribution in EUR (up to)	Own Funds / Third party financing in EUR (up to)	TOTAL in EUR (up to)	
<b>1. Staff (Job Title)</b>						<b>345.560,66 €</b>		<b>345.560,66 €</b>	
Project Coordinator	100%	1	36	months	1179,68	42.468,65 €			
Sr. Program Manager	100%	3	36	months	894,08	96.560,29 €			
Program Manager	100%	6	36	months	583,63	126.094,82 €			
FA	100%	12	36	months	186,27	80.466,91 €			
<b>Project Activities</b>						<b>1.077.283,07 €</b>		<b>1.077.283,07 €</b>	
Grassland restoration	New areas	1000	Hactare	1	117,97	117.968,46 €			
	Old areas	6000	Hactare	1	12,42	74.506,40 €		192.474,85 €	
Soil Moisture Conservation + Soil and Water Conservation	New areas	1700	Hactare	1	99,34	168.881,16 €			
	Old areas	539	Hactare	1	99,00	53.361,00 €		222.242,16 €	
Agriculture and allied activities	New areas	2000	farmer	1	31,04	62.088,66 €			
	Old areas	5000	farmer	1	9,93	49.670,93 €		111.759,59 €	
Irrigation and water use management	New areas	40	village	1	310,44	12.417,73 €			
	Old areas	80	village	1	155,22	12.417,73 €		24.835,47 €	
Kitchen gardens	New areas	1000	farmer	1	80,00	80.000,00 €			
	Old areas	1800	farmer	1	55,00	99.000,00 €		179.000,00 €	
Soil health monitoring	New areas	1500	sample	2	per year	9,93	29.802,56 €		
	Old areas	950	sample	2	per year	9,93	18.874,95 €		48.677,51 €
Agri Advisories through NiCE	New areas	2000	farmer	36	months	0,99	71.526,14 €		
	Old areas	5000	farmer	36	months	0,99	178.815,36 €		250.341,49 €
Knowledge products and Knowledge management)									
A) Brochures ( designing, printing and Dissemination)		5000	no	1	3,20	15.984,00 €		47.952,00 €	
B) Training material like technical fact sheets etc.		10000	no.	1	3,20	31.968,00 €	47952	15984	
<b>3. Transportation / Travel Costs</b>						<b>60.084,00 €</b>		<b>60.084,00 €</b>	
International Travel		6		1	travels	2484,00	14.904,00 €		
Domestic travel for implementation of project activities		36		1	months	1255,00	45.180,00 €	3,1968	
<b>4. Training costs (Capacity building of Community + NGOs)</b>						<b>108.034,27 €</b>		<b>108.034,27 €</b>	
New areas		2000	farmer	1	ring cost per h	18,63	37.253,20 €		
Old areas		5000	farmer	1	ring cost per h	9,93	49.670,93 €		
NGO staff		3	training eve	1	ring cost per	7036,72	21.110,15 €		
<b>5. Procurement of Goods</b>						<b>78.777,00 €</b>		<b>78.777,00 €</b>	
Automated Weather stations		7		1	number	3580,00	25.060,00 €		
eled reaper with 212 CC and cutting width of 1200 mm for Farmer groups with insurance and AMC		15		1	number	1890,00	28.350,00 €		
Motor Cycle 220 CC / Scooter 125 CC ( for women employees)		6		1	number	1000,00	6.000,00 €		
Auto level for civil works		1		1	number	260,00	260,00 €		
River-health monitoring equipments		1		1	number	1500,00	1.500,00 €		
GPS		8		1	number	249,00	1.992,00 €		
Training equipments		20		1	number	100,00	2.000,00 €		
Electric equipments for office use-fans, coolers		12		1	number	200,00	2.400,00 €		
laptops		4		1	number	800,00	3.200,00 €		
Camera		5		1	number	350,00	1.750,00 €		
Projectors		5		1	number	480,00	2.400,00 €		
for office scanner / printer		4		1	number	260,00	1.040,00 €		
Inverters for cluster office		3		1	number	275,00	825,00 €		
Office furnitures and fixtures		1		1	budget	2000,00	2.000,00 €		
<b>6. Operational costs</b>						<b>72.509,00 €</b>		<b>72.509,00 €</b>	
office rent & electricity		36		1	months	450,00	16.200,00 €		
office maintenance ( small repairs , Renovation , Kitchen consumables , Water purifier etc)		36		1	months	125,00	4.500,00 €		
vehicle fuel & maintenance		36		1	months	480,00	16.560,00 €		
Miscellaneous office expences ( basic office supplies like tissues, Pantry supply etc)		36		1	months	80,00	2.880,00 €		
Communication costs ( internet / phone etc)		36		1	months	300,00	10.800,00 €		
dissemination of project experiences ( liasoning workshops , documentation of learnins , Films etc)		1		1	budget	11000,00	11.000,00 €		





## 1. Background

FES is supporting measures regarding soil protection, rehabilitation and fertility management, which are implemented in selected intervention areas and documented based on agreed standards." Target groups are small-scale farmers, with a particular focus on women farmers; experts and decision-makers in ministries, institutes, private-sector associations and municipal bodies, and the staff of state-run and private-sector service providers. Till June 2018 FES worked with small-holder communities in 95 villages on watershed approaches and soil fertility measures. The upcoming Grant Agreement will continue the work in 95 villages to achieve sustainability and convergence, moreover it will extend the area for 50 additional villages.

## 2. Problems to be addressed

Soils are a non-renewable and finite resource. Their overuse and misuse lead to nutrient depletion, erosion and other forms of degradation. Approximately six million hectares of land worldwide become degraded each year. As a result, soil productivity decreases at the same time as the pressures from a growing world population increase. The BMZ special initiative 'One World, No Hunger' seeks similar objectives. An important field of activity in this respect is the conservation and rehabilitation of arable land. The majority of agricultural production in the developing world comes from smallholdings unlike in Western culture, and most poor families also live on these farms. Such small-scale operations in particular tend to make inappropriate use of their land, which leads to progressive degradation. Examples of sustainable land-use practice do exist but owing to a lack of investment in inclusive knowledge transfer and unfavourable settings, these often remain isolated solutions. Increasing soil degradation coupled with growing food insecurity pose major challenges to the political, institutional and particularly the financial capacities of the developing countries affected. Both national agricultural policy and donor support frequently focus on approaches promoting agri-business which promise the short-term profitability and, above all, the commercial viability of the structures created. Some nations have established efficient approaches and institutions to safeguard resources, but thus far none has successfully linked these to financing facilities which are effective over the long term.

It is seen that the major causes of land degradation in India are varied. Water including wind induced erosion, is the main agent of land degradation and affects approximately 94.87 m ha or approximately 37% of the total geographical area of the country. Unsustainable land use is the main cause behind such erosion. Arresting rain water speed and improved green cover helps in reducing this primary cause of soil erosion.

## 3. Project objective

The primary aim of FES is to promote **"Sustainable and inclusive approaches for soil conservation, rehabilitation of degraded lands and to ensure implementation of**



**technologies to improve soil health in selected locations leading to enhanced crop productivity".** This overall objective is defined by the following benchmarks:

#### **4. Implementation approach**

- Tributary basin approach, focusing upon upper catchments of tributary basins. The project will be working for restoration and rehabilitation of soil in upper catchments of tributaries of Narmada river. This will ensure wider impacts over the river health in general.
- Inclusive approach-The project by design reaches out to tribal areas of Mandla and Balaghat districts which are largely situated in upper catchments of tributaries of Narmada.
- Commons paradigm- The project approach is guided by the idea of natural resources as common properties, thereby soil, land and water being considered as commons. The project will strengthen the community institutions to govern, share and restore common resources, thereby investing in sustainability of natural resource management initiative.
- Project to build upon the watershed development activities already implemented under IGWDP, WDF, and IWMP etc., thus leveraging on the soil conservation and water resource development works taken up in these projects. However, gap filling could be taken up in this project (under participatory mode)
- Trainings and demonstration on sustainable agriculture for farmers, promote use of Soil improving organic products
- Water management, water budgeting to be a part of the programme.
- Project is to try private sector participation and also to leverage upon National Mission on Sustainable Agriculture.
- Inclusive development approach with special focus on women farmers
- Mainstreaming of agricultural advisory services for the farmers through integrating the digital platform NICE

#### **5. Brief Description of project implementation area**

The first-ever 2008 India State Hunger Index (ISHI) published by IFPRI noted that all Indian states have at least a "serious" level of hunger. Twelve states fall into the "alarming" category and one (Madhya Pradesh) is considered to have an "extremely alarming" level of hunger. About 58% of the population is below poverty line in Madhya Pradesh. With 75% population dependent on agriculture and 55% of the land area under cultivation, there is high relevance of agriculture and land use in Madhya Pradesh. In recent years, the agriculture growth rates of Madhya Pradesh have accelerated. This is primarily achieved through expansion of irrigation facilities, heavy push on high input-high output agriculture. Such a focus has also led to neglect of sustainability aspect and has primarily benefited only large farmers,

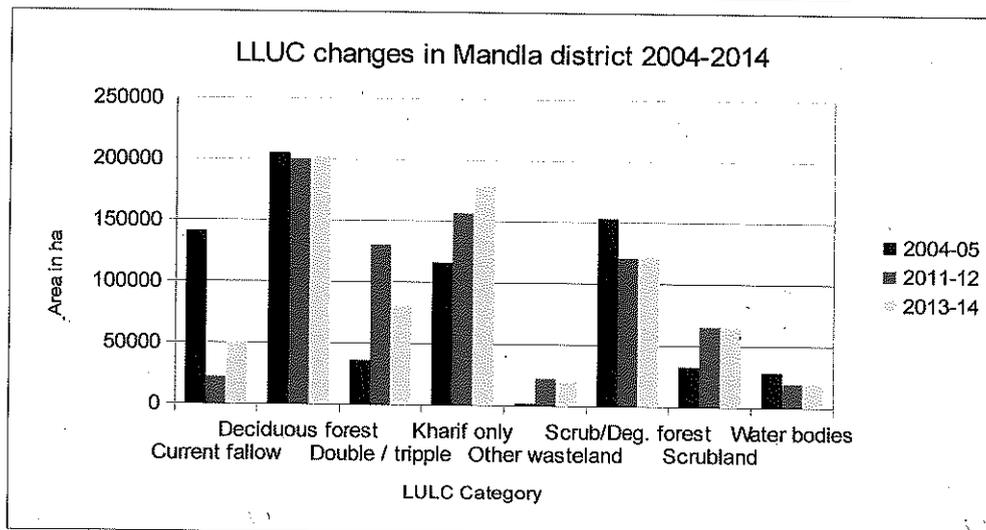


excluding the small and marginal farmers, especially those living in the upper catchments, where soil health is of prime importance for production.

Mandla and Balaghat districts, located in Eastern Madhya Pradesh, possess huge area under forests and hold crucial habitats for endangered flora and fauna. This region being an ecotone has a very high biodiversity with both Sal and teak trees found on specific tracts. The district also possesses a large area of miscellaneous forests. Mandla district is a part of "Eastern Plateau and Hill Regions" Agro climatic zone. Furthermore, the depending upon topography, soil and land-use, the Madhya Pradesh is divided into eleven agro-climatic regions, according to this classification Mandla district comes under "Northern Hill Region of Chhattisgarh". The Upper catchments in both the districts which are either forests or common lands are fast getting degraded owing to soil erosion, encroachment, biotic pressure for fodder and fuel wood and gradual disintegration of governance of common properties. These commons form an important part of the adaptive capacities of the poor, who are dependent upon them for fodder, fuel wood, manure and forest produce, all of which plays crucial role in regulating nutrient replenishment in soils.

The following graph explains the changes in land use in Mandla and Balaghat districts in past 10 years<sup>1</sup>.

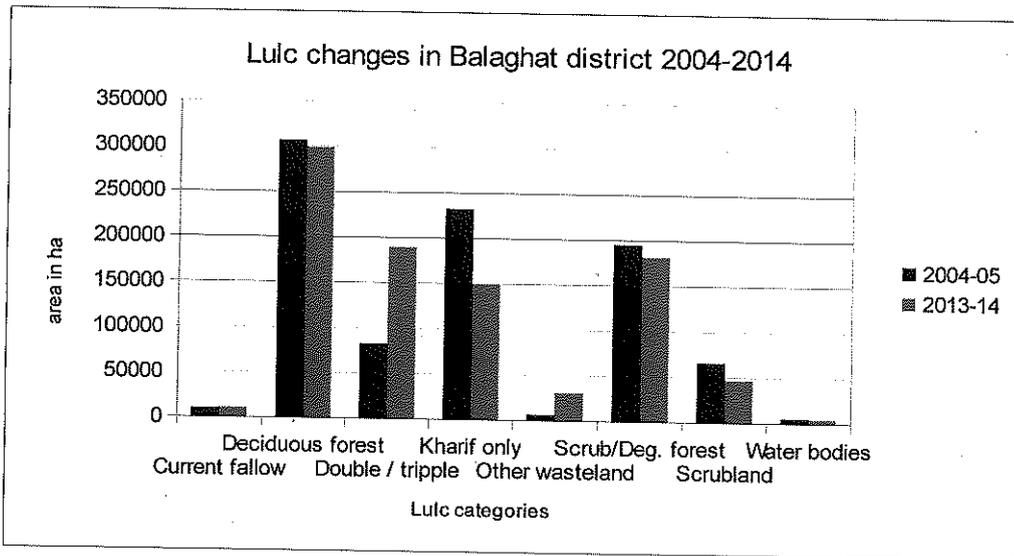
**Graph 1: Changes in Land use and Land cover in Mandla District**



Source: National Remote Sensing Centre

**Table 1: Changes in Land use and Land cover of Mandla district i(2004-2014).**

Landuse/Landcover category	2004-05	2011-12	2013-14
Current fallow	141122	22472	50648
Deciduous forest	205267	200778	202256
Double / tripple	36144	130945	81056
Kharif only	116434	157035	178773
Other wasteland	1602	22557	19877
Scrub/Deg. forest	153346	121474	122230
Scrubland	32653	65582	65369
Water bodies	28264	19802	20064



**Graph 2: Land use land cover changes in Balaghat district (2004-14)**

**Table 2: Land use and land cover changes in Balaghat district (2004-2014):**

Landuse/Landcover	2004-05	2013-14
Current fallow	10025	11313
Deciduous forest	306489	299543
Double / tripple	83075	190359
Kharif only	232702	150897
Other wasteland	6831	31472
Scrub/Deg. forest	195553	182702
Scrubland	66121	47788
Water bodies	5637	5222

The changes in land use in both the districts indicate intensification of agriculture and degradation of forests. Both districts experience marked decline in deciduous forests, and stupendous rise in other wastelands and scrublands coupled with meteoric rise in intensity of

agriculture. Sustainable land use needs urgent attention otherwise, the issue will soon snowball into an ecological crisis. Degradation of lands due to unsustainable land use has already forced Mandla district lose about 30% of its water bodies in past one decade. There is a need of landscape level engagement with village institutions providing an institutional backbone for this engagement on land use, management of natural resources and making informed choices. A comprehensive view of the natural resource base would need to comprehend the constituent resources; the interactions among them and the land use patterns that are extant. Land (all types of land – cultivated and un-cultivated), water resources, forests, livestock, crops, orchards, grass, fodder, non-timber forest produce, fuel-wood, small timber, herbs, etc.). And of special mention the common pool natural resources that are a vital component of the landscape contributing not only to biomass supply, but also maintaining the hydrological regime. Traditionally, natural resource management initiatives have tended to focus on one or the other of these resources, ignoring the linkages between resource systems.

Institutional processes are required for improving the land use, allowing the upper catchments under forest regime or under agro-forestry of agro-horticulture systems and conservation of natural resources. Institutional processes are also required for climate monitoring for collective decision making for agriculture and land use. Household level efforts are required for diversifying risks at farming system level, optimizing the returns from household level assets and skills that would help in adapting to the changing climate whereas landscape level and community level efforts are required to address the issue holistically.

In general the gently sloping land and uplands of Mandla holds mixed red and black type of soil. With reference to classification of soils of world, the soil of Mandla comes under class of "*brown earths*". These types of soils have developed from granite gneiss and quartzite schist complexes. The fairly deep yellow, brown and reddish coloured soils are coarse to medium in texture in 'A' horizon and fine in texture in 'B' horizon. Black cotton soil is also prevalent in low-lying areas, while alluvial soil is present along nallahs and streams. The topography, the underlying rock and weather plays crucial role in deciding type of soil present. Due to erosion the soil on sloppy area is shallow while soil in the plain areas is quite deep. The farms owned by the communities can be seen to be of three types - upland, midland and lowland. . Soils are in general deficient in nitrogen and phosphorus (but high in potash) while



in the intensive paddy areas, zinc deficiency is also seen. The average use of fertilizer for the Mandla District is far below the state average.

Of the two cropping season "Kharif" locally called as "Siari" is of greater importance area wise and in growing principal cereals and millet crops. The position of being largest grown single crop has been traditionally occupied by minor millets, "kodo and kutaki", which formed staple food of most of the tribal population. While now rice is most extensively cropped than any other crop. Maize is also one of the staple food grown on "Barri" i.e. backyard. Wheat is grown in the rabbi season with residual moisture and where irrigation is available. Other main crops are red gram, lentil, Niger and mustard. Red gram is generally grown on bunds of fields.

The landholding can be classified under three categories depending on soil variety: black, yellow & *murram* and their spread over the village gradient defines the soil texture. While the low lands are black and undulating uplands are of red *murram* variety, the medium upland/medium lowland is of yellow soil. These are put to cultivation depending on specific resources situation in the family and vary from season to season, year to year. The low land and an insignificant proportion of the medium upland are put under second crop cultivation.

Most of the farmers own some homestead land varying between 0.25 to 1 acres. The homestead, which is the most attended piece of land (fenced and with good manure application) is used to cultivate maize. A marginal or small farmer has about 0 to 1 ha of land, fragmented and distributed over soil variety. The interesting feature of land ownership pattern is that virtually all households have each type of land, though the poorer households may have most of their land in the upper reaches, with very little valley land. Valley lands and medium lowlands tend to be most fertile and have higher clay content whereas medium uplands tend to be sandy and mildly acidic. The uplands can be gravely, sandy and with degraded soil cover due to over grazing and erosion. Most families having access to low land and doing wheat cultivation are usually grain sufficient; however, most of the other families buy grain for 5-6 months. Those households, which have sufficient patch of cultivable land, are not found to be food sufficient owing to poor farm productivity. This, in absence of alternate employment opportunities, impinges on food availability to the family leading to migration.

Despite intensification, the average yields of most crops remain far below from the national average. This is due to low level of technical inputs, reduced nutrient flows from commons,



soil erosion and low levels of seed replacement. If one looks at the agriculture of the region in depth, one gets to know that much of it is subsistence. Because none of the agri-produce (except for vegetables done by a miniscule of farmers) reaches the markets the objective of farmers is almost never to grow beyond household consumption.

#### **6. Proposed Project Area:**

The project will be implemented in 145 villages ( 95 Villages from old area , and 50 villages in the new area) of Mandla and Balaghat districts, spread across three blocks, namely Bichiya, Niwas in Mandla and Baihar block in Balaghat.

7. In the old project area focus will be to consolidate the interventions to ensure sustainability , this will be achieved through reinforcing the capacity of the community through follow up trainings. In the new area , the technology introduction will be the main focus: Following Measures are planned to achieve this objective

#### **7.1 Improvement in agriculture practices:**

The yield of major crops in Mandla is extremely low as compared to the average national yields, which is primarily due to gradually decreasing soil health, lack of catchment protection as well as lack of awareness about sustainable agriculture practices. The team will reach out to 7000 farmers in Mandla and Balaghat districts (2000 farmers in new villages and 5000 in old villages) through its support for improving soil fertility and other agricultural practices. In order to improve upon the existing practices especially regarding soil health, we will facilitate trainings and input development. Following interventions will be undertaken:

1. Promotion of crop rotation that would improve soil health
2. Working on seed germination tests, seed treatment and lowering seed rate that would help improve production without impacting soil fertility.
3. Promotion of composting methods
4. Promotion of cow-urine as organic fertilizer and pesticide in all crops.
5. Diversifying and strengthening different farm based livelihoods like agro-forestry, kitchen gardens, horticulture.
6. Promotion of drip irrigation
7. Promotion of pulses and working on practices making pulses less vulnerable. (It may include locating disease free seeds of pulses)



8. Promotion of practices on the line of "Low external input based sustainable agriculture" (LEISA) and natural farming as deemed necessary after baseline. This will include farmer trainings in all 145 project villages covering 7000 farmers in all.

### **7.2 Upland treatment additional 2000 hectares**

In each project village, about 50 hectares of uplands will be treated which will not only improve the biomass yield or crop yield from uplands but also lead to improved moisture regime in low lands, thereby boosting their productivity. A total of 5000 ha of uplands will be treated with a ridge to valley approach. The works that will be undertaken may include:

1. Gully treatment and stone bunds
2. Contour trenches
3. Small check dams to improve moisture retention
4. Agro-forestry to prevent soil erosion.
5. Small farm ponds
6. Grass seeding in fallow lands.
7. Other interventions in the line of ridge to valley approach and natural farming as deemed necessary after baseline.

In the new area the physical structures will be made while in old locations the maintenance of the structure / interventions will be the focus.

### **7.3 Control over invasive species and grassland restoration**

Large swatches of common and private lands in Mandla and Balaghat district are captured by invasive species. Freeing them from invasive species will leave lands available for regeneration of native grasses, which would bind the soil as well as provide useful fodder and thereby boost the availability of manure. Another outcome of the work will be on positive impact on milk production due to fodder availability.

### **7.4 Supporting for irrigation, water management and water use efficiency**

Irrigation is a critical input for ensuring a sustained crop yield especially in the times of extreme climate variability. Working in the upper catchment for soil retention and water recharge will impact incomes if benefit of water harvesting are also reaped by farmers. The team will largely invest in making the existing structures more useful by either providing technical solutions or institutional mechanisms to make this happen.

### **7.5 Capacity building of community for promotion of sustainable land management**



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The country's tribal community draws on a complex system of interactions between various production systems in the natural environment for much of their livelihood. This environment is in a state of repair. And though their numbers are fast declining there is still a significant population of ecosystem people in the country's rural hinterlands. They are small farmers, fisher folk, herders and hunter-gatherers who depend on the diversity of species and ecosystem services for their livelihoods and cultural lives. It provides them with their fuel, food, and fodder for livestock, housing material, medicine and spiritual sustenance. It is them for who are at the immediate receiving end of this crisis; vanishing jungles, soil erosion, depleting stock of fish, erratic monsoons, and sometimes-unseeing policy – alongside this, is the decline in the collective spirit - their lives and livelihoods affected, these people, often as individual families are being forced to change their lives to adapt to these changes. It is unfortunate that their voices are often unheard even in their own gram sabha. The 73rd amendment and its extension to scheduled areas envisages that gram panchayats in their role of local governments will be able to deliberate on the concerns of these marginalized and evolve an area plan for their constituency and allocate resources for the implementation of these plans. Majorities of the States are still in the process of devolving functions and the requisite functionaries and finances to the PRIs and guidelines for the PESA are still awaited. Where powers and resources have been devolved, support to the Panchayats in terms of human resource development are still awaited or underway. The project will try to address this critical gap as village institutions will be the key approach for accomplishing work in the project. Village institutions will go a long way in ascertaining sustainable land use and tenurial security over land for the poor.

There is a need to help farmers organise themselves in to farmer groups as well as producer organizations in a long run to ensure that they are able to negotiate better in free market conditions and make the best of climatic conditions as they become more and more unpredictable. The capacity building to this end will be accompanied by rigorous trainings on agriculture in order to boost agriculture production as well help farmers realize better prices.

### **7.6 Soil Health Monitoring**

In order to be aware of impact of the project on soil health, we will monitor about 1950 samples for soil health which would include thorough testing for all major and few micro-nutrients, pH and organic carbon. The study will be undertaken in different kinds of lands (uplands, homestead, medium lands and low lands) in all river catchments.

### **7.7 Agromet advisories**



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