

Indian Council of Agricultural Research National Agricultural Innovation Project

Project Implementation Unit

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www.naip.icar.org.in

The second call of invitation for concept notes on research projects under the identified thrust areas for support by the National Agricultural Innovation Project (NAIP) under Competitive Mode

The NAIP has completed the first step processing of all the Concept Notes (CNs) and the final processing of some of the CNs submitted in response to the first call made during October 2006. This is the second and probably the final call for Concept Notes under the NAIP. The number of projects to be supported under this call will depend upon the number of projects that get sanctioned under the first call.

The Project:

The Government of India has launched the National Agricultural Innovation Project with a credit support of the World Bank. The project will run up to June 2012. The ICAR is operating the project. The overall objective of the project is to facilitate accelerated and sustainable transformation of Indian agriculture for rural poverty alleviation and income generation by the application of agricultural innovations through collaboration among public research organisations, farmers' groups, NGOs, the private sector and the civil societies and other stakeholders

Research Components of NAIP to be funded:

The NAIP has three research Components:

- 1. Research on Production to Consumption Systems (PCS)** involving the entire set of actors, materials, activities, technologies, services, and institutions engaged in all stages from supply of inputs to harvesting of a particular commodity and transforming it into a usable product, and storing / marketing the final product.
- 2. Research on Sustainable Rural Livelihood Security (SRLS)** for improving and developing the most suitable farming systems and allied activities, in the less favourable environments and regions for rural livelihood improvement and security. The Project will be implemented in 150 backward districts identified by the Planning Commission.
- 3. Basic and Strategic Research in the Frontier Areas of Agricultural Sciences (BSR)** aims at making investments in frontier science areas of agricultural research that are strategically important for Indian agriculture.

Thrust Areas for the Second Call:

The list of thrust areas on which research projects under PCS and BSR above are being invited in this call is given in the NAIP Website. The proponents have to prepare the concept

notes on these areas. Concept Notes covering those backward districts identified by the Planning Commission which neither have been covered by the selected Concept Notes submitted under the first call nor by those sub-projects funded under the sponsored mode

will

get priority under the second call. Work for 2 of 3

clusters of two or more contiguous districts with similar livelihood systems will be preferred. Please see the NAIP website for the list of uncovered districts.

Who Can Participate?

The research Components will be implemented using the innovative concept of consortium of

stakeholders which will facilitate wide collaboration and partnership among the stakeholders in using knowledge, setting priorities, in experimentation, and development and implementation of technology. A consortium will consist of a few well-knit partners (say about six) who share a well defined and binding common goal and plan of work, have identified tasks for each and, a mutually agreed process of sharing resources and benefits. The consortium partners can be research institutions from both inside and outside the National Agricultural Research System (NARS) and any other organization or institution having common stake, experience, capability in agricultural research and development, willing to collaborate and fulfil all the requirements of NAIP. In the Component 4, individual institutions and network of institutions with proven record and reputation can also compete if the work so justifies.

Selection:

All the competitive projects will be selected through a two-stage competition process. First, concept notes (CN) on project proposals from prospective consortia will be called. The consortia whose concept notes pass through the first round screening will be asked to submit

full proposals. At the second stage, full proposals will be similarly screened and finally selected for funding.

Expenditure to be funded:

In general expenditure on goods & equipments; capacity building, renovation of labs and construction for housing new equipment/ plants, TA/ DA, workshops/ meetings, contractual staff, operational costs and institutional charges will be considered for funding as per the prescribed norms. Support to organisations for capital expenditure will be subject to certain conditions. Please see details at the website. The financial limits will depend on the nature of

the project and will be decided by the Competent Committee

Submission and Selection Process for Concept Notes:

Last date of submission: 12

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October, 2007 (till 2400 hrs)

_ The CNs has to be submitted strictly in the prescribed electronic format which will be available from 1000 hrs of 10

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September, 2007 to 2400 hrs of 12

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October, 2007 on the

NAIP website: <http://naip.icar.org.in/secondcall/>

_ Depending upon the rationale and objectives, the proponent has to identify the components of NAIP to which his/her Concept belongs and submit the Concept Note in the relevant proforma prescribed for the identified component.

_ Projects proposals with less than Rs. 5 crore outlay will not be processed.

_ The list of Concept Notes selected for development into full proposals will be put on the website of NAIP and the respective Consortium Principal Investigators will also be intimated suitably.

_ The decision of the Competent Committee will be final.

_ Submission of a Concept Note will imply that the proponent(s) agree(s) to abide by the rules of selection of NAIP.

General:

Any one institution/ organisation may submit as the Consortium Leader, a maximum of two Concept Notes considering all the 3 research components together. However a state / central

agricultural university or a deemed- to-be agricultural university can submit up to 4 proposals considering all the 3 research components together.

A Help Desk has been established at the National Academy of Agricultural Research Management (NAARM), Hyderabad, for helping the prospective proponents. Please contact through the **website:** www.naarm.ernet.in/naiphelpdesk.html or the with your queries.

For the details of modalities of operation including guidelines, formats etc., please see the **website** <http://www.naip.icar.org.in>

Priority Research Areas Suggested under Research on Production to Consumption Systems (PCS)

Category 1: Food Security & Income Augmentation

- | Rice in Rainfed & Flood-prone Areas
- | Medicinal Rice
- | Aqua-Agri-Horti Models for Coastal Areas
- | Underutilized Indigenous Crops, Fruits & Vegetables
- | Organic Dairy Farming
- | Maize

Category 2: Agro-Processing

- | Tomato
- | Dairy Products
- | Citrus Fruits (Orange)
- | Mushroom
- | Natural Plant Products
- | Fibre From Animals Other than Sheep
- | Formulation Foods/ Drinks
- | Plants, Animals and Fish as Bioreactors
- | Non-Conventional Feed Resources
- | Pulses of importance
- | Oilseeds of importance

Category 4: Export Promotion

- | Organic Rice
- | Fruits, viz. Mango, Grapes, etc.
- | Spices (Other than Seed Spices) and Value-added Products
- | High-Value Fish (Lobsters, Pomfrets, Crabs) and Mariculture and novel fishery products
- | Gherkin
- | Flowers & Cut Flowers
- | Medicinal & Aromatic Plants/ Trees
- | Sea Weed/ Marine Flora
- | Extraction and Purification of Food Grade Phyto-Chemicals (Capcisin, Bixin, Lycopene etc.)
- | Seabuckthorn
- | High Value Products From Grain Milling Industry (like Rice Bran etc.)

Category 5: Resource-use Efficiency

- (Innovative Environment- Friendly PCSs)
- | Bio-pesticides

- | Organic Farming in Rainfed Areas
- | Decentralized Energy Generation:
 - From Renewable Energy Sources
- Category 3: Income Augmentation & Employment Generation
- | Peri-urban Dairy
- | Poultry in Southern & Eastern India
- | Small Ruminant Meat in Arid & SAT
- | Industrial Agro-Forestry
- | Fish Seed Production
- | Production of Fruits & Vegetables in Non-traditional Areas & Seasons
 - From Agricultural Wastes, By products and Processing Wastes
- | Protected Cultivation of High Value Crops
- | Conservation agriculture
- | Water productivity (multiple use)

Districts selected under NAIP Component 3 from the list of 150 identified as backward

districts by Planning Commission which are not covered in the sub projects being reviewed under first call or approved sub-projects under the sponsored category

States Identified Districts Identified Districts Not Covered

Andhra Pradesh

Adilabad, Mahbubnagar,
Rangareddy, Khammam, Warangal,
Nalgonda, Anantpur & Cudappah
(8)

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Arunachal Pradesh Upper Subansiri (1) --

Assam

Kokrajhar, North Cachar Hills,
Karbi Anglong, Dhemaji & North
Lakhimpur (5)

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Bihar

Araria, Vaishali, Gaya, Madhubani,
Muzaffarpur, Nawadah,
Samastipur, Sheohar,
Katihar, Jamui, Lakhisarai,
Monghayr, Purnea, Supaul &
Darbhanga (15)

Araria, Gaya, Madhubani,
Muzaffarpur, Nawadah, Sheohar,
Purnea, Supaul, Lakhisarai (9)

Chhatisgarh

Bastar, Dantewada, Kanker,
Korbia, Sarguja, Jaspur, Dhamtari,
Raigarh, Bilaspur & Rajnandgaon
(10)

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Korbia, Sarguja, Jaspur, Dhamtari,
Raigarh, Bilaspur & Rajnandgaon
(10)

Gujarat Dangs, Dohad, Panch Mahals,
Sabarkantha, Narmada, Banskantha
(6)

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Haryana Satyamev Puram (1) --
Himachal Pradesh Chamba (1) --
Jammu & Kashmir Doda, Kupwara (2) --
Jharkhand

Saraikela, Singhbhum West,
Godda, Simdega, Gumla, Chatra,
Garhwa, Palamau, Latehur,
Lohardagga, Dumka, Jamtara,
Sehebganj & Pakur (14)
Saraikela, Singhbhum (West),
Godda, Simdega, Gumla, Chatra,
Garhwa, Palamau, Latehur,
Lohardagga, Sehebganj, Pakur (12)
Karnataka Chitradurga, Davanagere & Bidar
(3)

Bidar (1)

Kerala Wayand (1) --

Madhya Pradesh

Jhabua, Mandla, Barwani, Shivpuri,
Sidhi, Tikamgarh, Chattarpur,
Betul, Khargone, Khandwa,
Seopur, Umaria, Shahdol, Balaghat
& Dhar (15)

Jhabua, Barwani, Shivpuri, Sidhi,
Khargone Seopur, Umaria,
Balaghat & Dhar (9)

Maharashtra Gadchiroli, Gondya, Chandrapur,
Bhandara, Dule, Nandurbar,
Hingoli, Nanded, Aurangabad,
Ahmednagar, Yawatmal (11)
Gondya, Bhandara, Dule, Hingoli,
Nanded, Aurangabad (6)

Manipur Tamenlong (1) --

Meghalaya South Garo Hills (1) --

Mizoram Siaha (1) --

Nagaland Mon (1) --

Orissa

Koraput, Malkangiri, Nabarangpur,
Rayagada, Mayurbhanj,
Sundergarh, Keonjhar, Phulbani,
Boudh, Nuapada, kalahandi,
Sambalpur, Ganjam, Deograh,
Jharsuguda, Sonepur, Bolangir,
Dhenkanal (18)

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Jharsuguda, Sonepur, Bolangir,
Dhenkanal (18)

Punjab Hoshiarpur (1) Hoshiarpur (1)
Rajasthan

Banswara, Dungarpur, Udaipur,
Sirohi & Karauli (5)

Karauli (1)

Sikkim North Sikkim (1) --

Tamil Nadu

Tiruvannamalia, South Arcoti

Cuddalore, Villupuram &

Nagapattinam (4)

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Tripura Dhalal (1) --

Uttaranchal Champawat & Tehri Garhwal (2) --

Uttar Pradesh

Sonabhadra, Mirzapur, Kushinagar,

Unnao, Raebareli, Sitapur, Hardoi,

Fatehpur, Lakhimpur Kheri,

Barabanki, Lalitpur, Banda,

Chitrakoot, Mahoba & Hamirpur

(15)

Sonabhadra, Mirzapur, Kushinagar,

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Barabanki, Lalitpur, Banda,

Chitrakoot, Mahoba &

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West Bengal Malda (West), Midnapur, Bankura,

West and North Dinajpur,

Murshidabad, Purulia (6)

Malda (West), West and North

Dinajpur, Murshidabad (3)

Priority Research Areas Suggested Under Basic and Strategic
Research (BSR)

a. Genetic enhancement (Plants)

1. Genetic enhancement of fruit crops.
2. Making novel gene constructs and identifying tissue growth stage in specific promoters.
3. Development of novel tools for production of hybrids in field and horticultural crops.
4. Genetic enhancement of input use efficiency of plants
5. Recombinant proteins.
6. RNA based biotechnology.
7. Taxonomical research with emphasis on germplasm resources of plants, animals and fishes.
8. Cytogenetical research in plant improvement.
9. Gene discovery, genetic enhancement and allele mining
10. Targeted integration of genes and organelle transformation
11. Gene pyramiding
12. Functional genomics/Proteomics/transcriptomics for response to biotic and abiotic stresses
13. Molecular diagnostics for plant pathogens
14. QTL identification, cloning and use in marker-assisted selection
15. Bio-prospecting the land biota for novel genes, bioactive molecules and products
- b. Genetic enhancement (Animals/Fishes)**
16. Genetic enhancement of input use efficiency of animals and fishes
17. Gene discovery, genetic enhancement and allele mining in farm animals and fishes
18. Proteomics/ transcriptomics for response to biotic and abiotic stresses
19. QTL identification, cloning and use in marker-assisted selection
20. Gene pyramiding in animals and fishes
21. Bio-prospecting the marine biota for novel genes, bioactive molecules and products
22. Stem cell research in fishes and animals
23. Molecular diagnostics and vaccines for farm animals
24. Autotransgenics in animals and fishes
25. RNA based biotechnology
- c. Natural resource management (Plant)**
26. Integrated management of pod borer, wilt and mosaic virus in pulses.
27. Agricultural waste, byproduct and processing-waste based decentralized energy production.
28. Protected cultivation of high value crops
29. Production of fruits in non-traditional areas and seasons.
30. Multiple use of low and degraded quality water for agriculture and allied activities
31. Research on crop weed, pest and disease continuum
32. Conservation Agriculture
33. Farmer friendly diagnostic tools for testing purity of biofertilizers and biopesticides.
34. Mechanisation of small farms.
- d. Natural resource management (Soil)**
35. Studies on diversity, dynamics and interaction of soil microflora.
36. Impact of micronutrient deficiency in soil on crop, animal and human health.
37. Plant root-soil and soil microflora interaction
38. Research into methods to control the availability and release of nutrients and carbon pool conservation and enhancement using strategic combinations of soil and organic and inorganic sources of nutrients
39. Research into GIS and low-cost electronic control systems for taking precision

agriculture to small farms and multiple-cropping systems in India

e. Natural resource management (Animal/Fish)

40. Island fishery

41. Fish hatching technology with availability of choice of spp. for the farmer.

42. Research in to developing fish seed certification.

43. Research in veterinary and fish pharmacology and development of new drug molecules.

44. Validation of traditional medicines in treatment of animal diseases and drug discovery from ayurvedic preparations.

45. Enhancing nutrient-use efficiency in buffaloes and cattle by manipulating rumen microbes and enhancing nutrient qualities of low-value fodders

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f. Natural resource management (Others)

46. Prevention of entry and management of alien plant, animal and fish spp.

47. Genetic enhancement of useful microbes.

48. Use of plants, animals and fish as bioreactors.

49. Long term environmental and socio-economic effects of biofuel agriculture.

50. Bioremediation for agriculturally relevant natural resources.

51. Climate change impact forecasting, characterisation and mitigation.

52. Input use efficiency in crops, animals and fishes

53. Development of the state-of-the-art plant, animal and fish disease surveillance and control

system

54. Understanding the effects of climate change on agriculture through an integrated approach to air, water, soil and plants

g. PHT& Value Addition

55. Promotion of underutilised indigenous crops, vegetables and fruits through development of mass production, value addition, processing and identification of nutritional values.

56. Formulation foods.

57. Development of agricultural product standards.

58. Impact on nutritional balance sheet of food processing and storage.

59. Sanitary and phytosanitary aspects of major Indian agricultural, plants, animals and fish products

60. Novel value addition, innovative products, processing and storage methods for agricultural products and byproducts

h. Social Sciences

61. Research into agricultural extension methods.

62. Research into marketing systems, market outlook, market demand and maximising the profits of all stakeholders from the primary producer to the consumer

63. Studies on appropriate region, commodity and market based institutional innovations like

contract farming, agri-commodity exchange, stakeholder held companies etc.

64. Agro-environmental economics under the present global scenario.
65. Research into technology forecasting systems.
66. Risk assessment and insurance products for protection of farmers.
67. Gender empowerment and mainstreaming

i. Others

68. Research into information acquiring, storage, value addition and dissemination for Indian Agriculture.
69. Bioinformatics
70. Statistical research for experiments on farmers' fields and biotic and abiotic stress affected areas.
71. Biosensors
72. Nanotechnology
73. Use of non-conventional energy in agriculture
74. Biosystematics of insects, nematodes, fungi etc.

**For Project Preparations & How to Apply?
Please Contact Us**

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