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Application Portal for Establishing Atal Community Innovation Centre(ACIC)

 Basic Details Track Record Type of Application Entity Technology Development and related Exposure Prior Experience Proposed ACIC Proposed ACIC (General) Proposed ACIC (Goals and Deliverables) Proposed ACIC (Business Consulting) Proposed ACIC (Credentials of the Managing Team) Contribution of the applicant / funding partner of the ACIC Contact Details Contact 1 (Single Point of Contact) Contact 2 (Authority Person)

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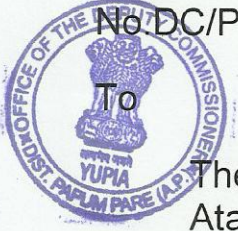


GOVERNMENT OF ARUNACHAL PRADESH
OFFICE OF THE DEPUTY COMMISSIONER
PAPUM PARE DISTRICT, YUPIA.

DC

No DC/PP/Sch/PC/122/2019

Dated Yupia the 26th September, 2019.



To
The Mission Director,
Atal Innovation Mission (AIM),
NITI Aayog, Sansad Marg,
New Delhi - 110001.

Sub:- Declaration.

Dear Sir,

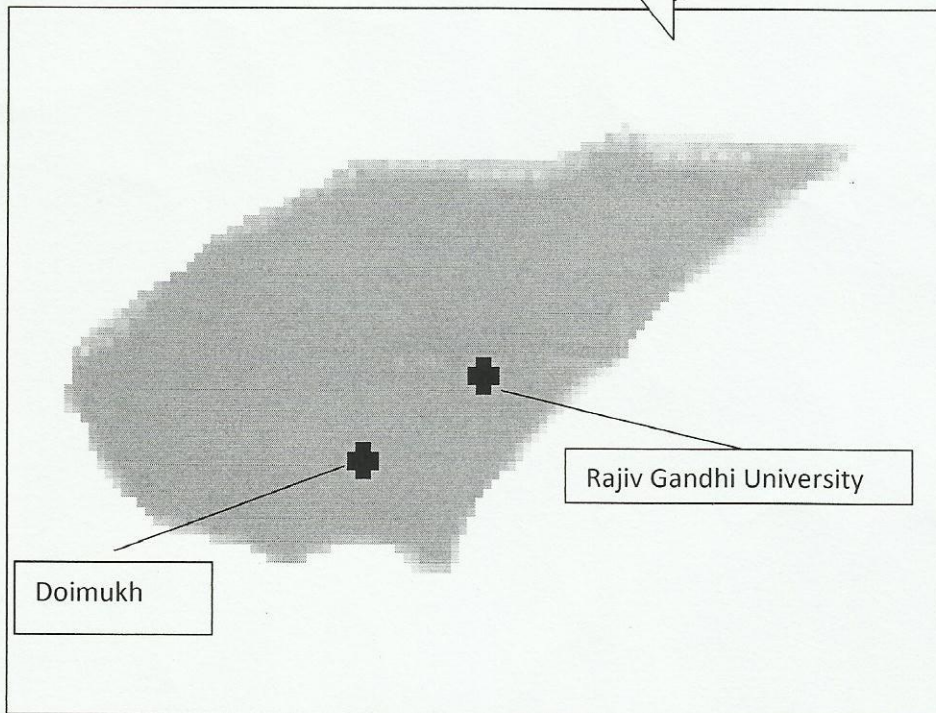
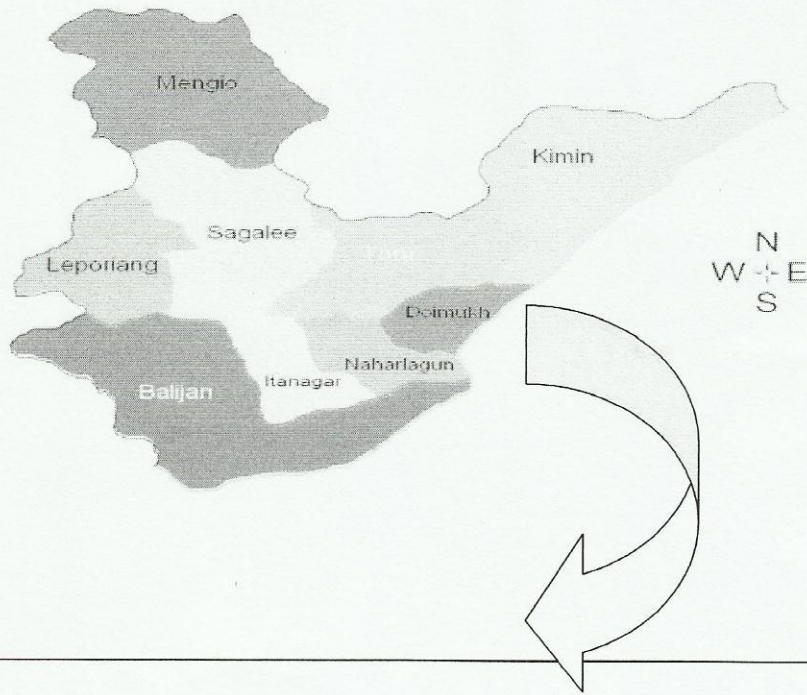
It is to declare that the proposed **Atal Community Innovation Centre, Rajiv Gandhi University, located at Rono Hills, Doimukh – 791112, Arunachal Pradesh** come under a **tribal region**. The innovation ecosystem is not well developed in this region and it can be considered as an unserved/ underserved region for the purpose of application of Atal Community Innovation Centre, which is a program of Atal Innovation Mission under the aegis of NITI Aayog.

The certified map (duly signed by the undersigned) is also attached here to support the above declaration.

[Pige Ligu]
Deputy Commissioner cum
District Magistrate
Papum Pare District

Yupia
Deputy Commissioner
Papum Pare District
Yupia, (A. P.)

Certified Location Map of Rono Hills, Doimukh



[Signature]
Deputy Commissioner
Papum Pare District
Yupia, (A. P.)

Shri Nabam Epo

HEAD G.B.,
Doimukh, Gumto Circle
District Papum Pare (A.P.)

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Ref. No.....

Date 26/09/2019.....

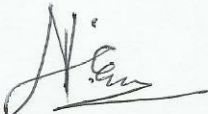
To
Mission Director
Atal Innovation Mission (AIM)
NITI Aayog, Sansad Marg
New Delhi – 110001

Subject: Declaration

Dear Sir

It is to declare that the proposed **Atal Community Innovation Centre Rajiv Gandhi University**, located at **Rono Hills, Doimukh-791112, Arunachal Pradesh** comes under a **rural area**. The innovation ecosystem is not well developed in this region and it can be considered as an unserved / underserved region for the purpose of application of Atal Community Innovation Centre, which is a program of Atal Innovation Mission under the aegis of NITI Aayog.

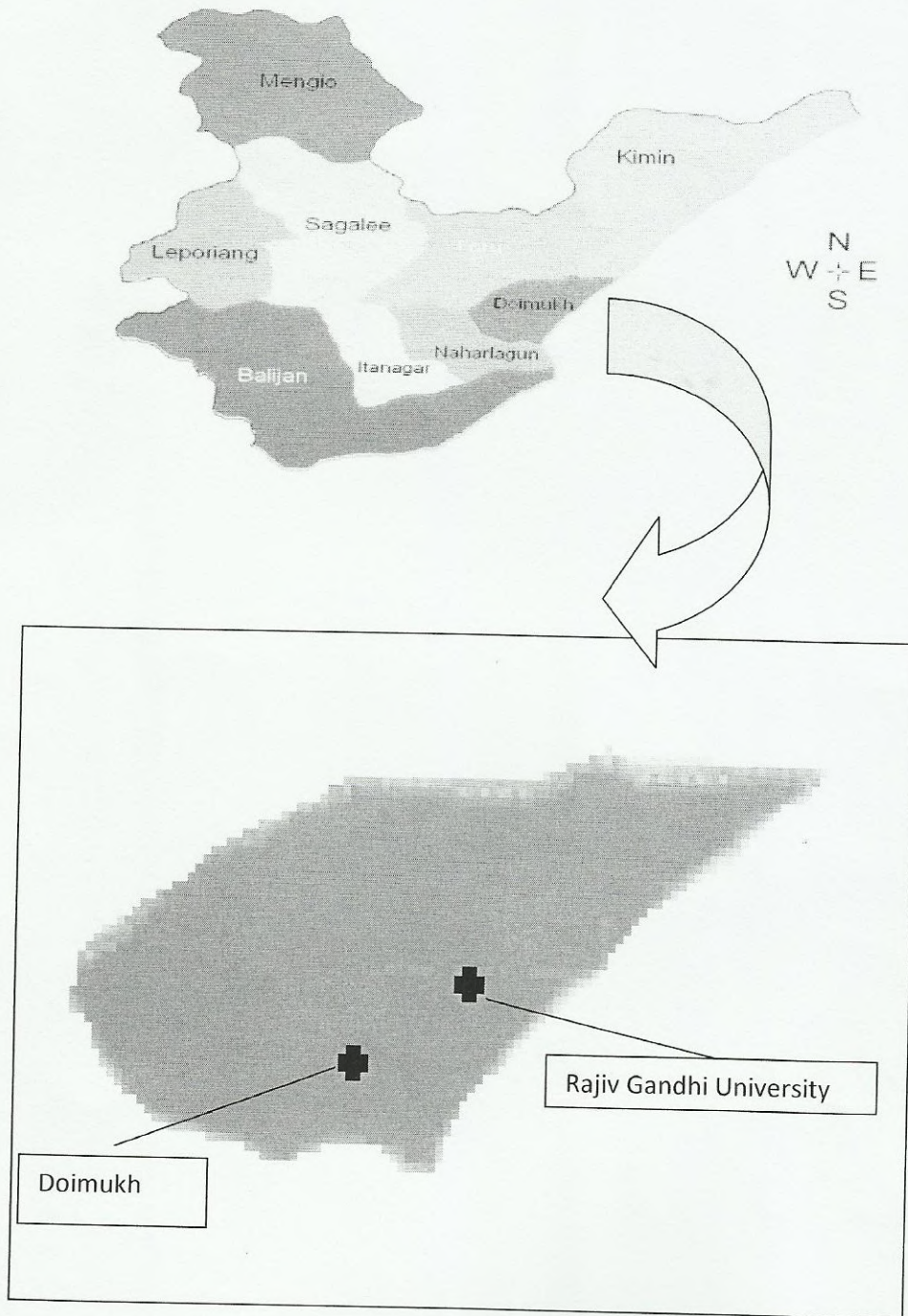
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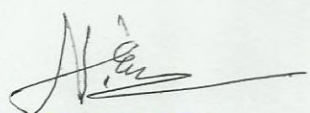

Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist. Papum Pare (A.P.)

Sarpanch

Gram Panchayat

Certified Location Map of Rono Hills, Doimukh




Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist., Papum Pare (A.P.)



अरुणाचल प्रदेश ARUNACHAL PRADESH

00AA 392102

To
Mission Director,
Atal Innovation Mission (AIM),
NITI Aayog, Sansad Marg,
New Delhi - 110001

Date: 25.09.2019

Subject: Declaration form for the application of Atal Community Innovation Centres 2019-20

Dear Sir/Madam,

Rajiv Gandhi University hereby declares that I/we have read, understood and will abide by all the terms and conditions of the Atal Community Innovation Centre (ACIC) scheme as mentioned in the Annexure I of the scheme guidelines. The information submitted in the application form by us is complete and to the best of our knowledge and belief; there is nothing that has been concealed or suppressed.


We confirm that we shall provide at least 4000 sq. ft. net carpet area for the exclusive use of the proposed ACIC.

We confirm that we have prepared the application in-house and that no paid external consultants were engaged to prepare this application.

If any of the information stated above or provided in the application form are found to be incorrect at any point of time, I / we take the responsibility to refund the entire amount of Grant-in-aid released by AIM, NITI Aayog.

Thanking you.

Regards,


Rajiv Gandhi University
(Registrar)
कुलसचिव
राजीव गांधी विश्वविद्यालय
Registrar
Rajiv Gandhi University
Rono Hills, Doimukh (A.P)



कुलसचिव
Registrar

राजीव गांधी विश्वविद्यालय
RAJIV GANDHI UNIVERSITY

भारत के संसद के अधिनियम द्वारा वर्ष 2007 में स्थापित किया गया
(A CENTRAL UNIVERSITY ESTABLISHED IN 2007 BY AN ACT OF PARLIAMENT OF INDIA)

रोनो हिल्स, दोईमूख (ईटानगर)
Rono Hills, Doimukh (Itanagar)
पिन - ७९१११२,
PIN - 791112,
अरुणाचल प्रदेश
Arunachal Pradesh
Ph.: 0360-2277253, Fax: 0360-2277889
E-mail: registrar@rgu.ac.in
Website: rgu.ac.in

Ref. No. AC-2147/ACIC/2019

Letter of Commitment from the Rajiv Gandhi University

To

Mission Director,
Atal Innovation Mission (AIM),
NITI Aayog, Sansad Marg,
New Delhi – 110001

Date: 25.09.2019

Dear Sir/Madam,

I am pleased to submit the Rajiv Gandhi University's application for participation in the Atal Community Innovation Centre (ACIC) scheme 2019-2020.

We, hereby also committed to contribute the matching grant of Rs. 245 Lakh as "Investment Commitment" for the setting up of Atal Community Innovation Centre (ACIC) in our University.


Thanking you.

Regards,

Rajiv Gandhi University

(Registrar)

कुलसचिव
राजीव गांधी विश्वविद्यालय
Registrar
Rajiv Gandhi University
Rono Hills, Doimukh (A.P)

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Your Application Form has submitted with application id : ACIC190900054 on 27-09-2019

13:49:41.

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A. EXECUTIVE SUMMARY

Rajiv Gandhi University (RGU) is proposing to set up Atal Community Innovation Centres (ACIC) to cater the youth of Arunachal Pradesh and its neighbouring NE states. Arunachal, a landlocked and least density state, has enormous natural resources to promote new entrepreneurial initiatives primarily in agro-based sectors. RGU has identified three product categories, (1) Fruit juice and Indigenous beverages processing (2) Oyster Mushroom Cultivation and (3) Native Ornamental Fish Culture and Breeding in view its enormous potential, reinforced with adequate supply base and increasing pattern of demand, primarily in the state, the NER and even throughout India.

Government of India (GOI) have been consistent in ‘Look East Policy’ which the present government has emphasized with ‘Act East Policy’. These promotional policies of the GoI would help these three product categories in easily capturing domestic as well as neighbouring international markets i.e. Myanmar, Bangladesh and Bhutan and other neighbouring countries thereby strengthening our bilateral trade relations. The GOI has identified a town ‘Pasighat’ in the state as smart city. The state is now well connected with broad-gauge railway network. Hence, all these infrastructural development and ongoing projects will certainly induce in achieving success in this business propositions. RGU-ACIC, if awarded, would certainly act as a change agent in the economic development process by motivating, imparting training, mentoring and improvising the youth of the state to offer meaningful contribution. These opportunities will open up employment generation directly or indirectly through this business model. The university is capable enough to run the centre, provided its supported adequately with resources time to time.

B. STRATEGY AND BUSINESS MODEL

1. Core strength(s) of the applicant that it will leverage for ACIC

The university established in the year 1984 has presently 25 PG departments / institutes under total of nine faculties. Being distinct knowledge body in the state, the university has acquired mentoring strength and identified three broad categories of products for which ACIC is sought. These three product categories, primarily be mentored by the existing faculty of life sciences in association with other lead departments / institutes, and gradually the university would deploy its technical knowhow, laboratories, expert faculty and other available resources.

2. Describe the local/regional innovation ecosystem and why there is a need to setup an Atal Community Innovation Centre there and how this region is unserved / underserved in terms of innovation and entrepreneurial ecosystem (max 250 words)

RGU is sole premier institution of higher education in Arunachal Pradesh. The proposed ACIC is planned to be set up in the university campus. The university has qualified faculty, professionals to act as mentor of the startups /incubatees from the Northeast India in general and Arunachal Pradesh in particular for grooming them as prospective entrepreneurs in the proposed sectors i.e. Fruit juice and Indigenous beverages processing, Oyster mushroom cultivation and Native ornamental fish culture. The university also has well equipped infrastructural and adequate laboratory support that can incubate the trainees in accordance with the national level standards. Hence, the proposed

RGU-ACIC would be in a better position to provide the start-ups with necessary guidance, tech support, infrastructure, access to investors, networking, and facilitating a host of other resources that may be required for the start-up to survive and scale.

RGU-ACIC would act as a principal institutional entity incubating and delivering competent manpower augmented with appropriate skill in a time bound manner. There are potential financial resources which could be invested if any state-run and privately run entrepreneurial enterprises are formed which would have a multiplier effect on economy as well as contribute to the SDP, thus strengthening the economy of the region. These initiatives will certainly ensure that the budding entrepreneurs involved in core farming sector, may leverage the future schemes offloaded by the government so that the indigenous entrepreneurs may create national level enterprises primarily in the food processing and horticulture sectors.

3. Describe the plan to involve communities in innovation and entrepreneurial activities (250 words max)

The proposed RGU-ACIC would attract the local people as prospective entrepreneur since all the project items [i.e. (1) Fruit juice and Indigenous beverages processing (2) Oyster Mushroom Cultivation and (3) Native Ornamental Fish Culture and Breeding] are basically derived from the broad ambit of agricultural system and all the raw materials are available in the near vicinity. Moreover, the tribal communities are well equipped through their indigenous knowledge system. The proposed RGU-ACIC would attempt to train the local manpower with the blending of traditional knowledge and the advance technical knowhow so that the budding entrepreneur can developed the product and deliver to the target customer segment. Through this process the RGU-ACIC would enable to accelerate socio-economic transformation in the rural area of Arunachal Pradesh. The RGU-ACIC would not only contribute to create the budding entrepreneur rather the process can involve the local youth of the state at various stages of supply-chains so the more number of youth would directly and indirectly engages in the economic activities. The process would engage the rural people and imbibe a culture of entrepreneurship in their social cost. The proposed RGU-ACIC would enable the trainees with implementable innovative processing so that the incubates would be action within the constraints of resources.

4. List focus areas / sectors (Annexure III) for the project and rationale to choose them

- Agriculture and Allied Fields
- Bio Technology
- Health and Pharmaceuticals

The proposed RGU-ACIC has the opportunity to promote the fusion of indigenous knowledge system with modern technological interventions. The economic core competency of the region largely depends on farming and allied activities since the local people are engaged with the primary function. The region is gifted with abundance of biodiversity resources which reinforces the core competency of the state. The extract from all these agro and biodiversity resources may explore innovative molecules through pharma related research. The proposed RGU-ACIC has identified

three product categories such as: (1) Fruit juice and Indigenous beverages processing (2) Oyster Mushroom Cultivation and (3) Native Ornamental Fish Culture and Breeding. The product wise details are as under:

I. Fruit juice and Indigenous beverages processing

The states in Northeast are developing very fast as fruit basket of India. Due to a planned intervention through National Horticulture Mission initiated in 2005-06 (now called Mission for Integrated Development of Horticulture; MIDH), Arunachal Pradesh has become a major producer of cultivated fruits such as apple, orange, kiwi, pineapple, banana, pear, plum, peach and lemon (Annual report, MOFPI, GoI, 2018-19). Arunachal Pradesh enjoys the distinction of being the largest kiwi producing state (4,720 MT). According to official data, the state has 18 lakh hectares of land available for horticulture of which only 0.89 lakh hectares have till date been brought under cultivation. As the area and production of fruits in the state is increasing year after year, there is tremendous scope for fruit processing industries establishment of food processing industries for making several products like concentrates and fruit juices, Frozen and dried fruits, jellies and jams.

Therefore, promotion of local entrepreneurship in NER will further strengthen the global market share of India which is at present the second largest producer of fruits accounting for 82 million tonnes and 10.9% of global fruit production and the fruit Industry in the country is one of the leading industries in terms of production, consumption, export and expected growth. However, due to skilled manpower deficiency, poor cold storage facilities, inefficient post-harvest management and a minimal technological intervention, India contributes only 1% of the global market of the fruit processing industry. India witnesses nearly 4.6 - 15.9 % wastage in fruits and vegetables annually, due to lack of modern harvesting technologies and cold chain infrastructure. Under MAKE IN INDIA initiative aimed to boost entrepreneurship in fruit processing, the logistics infrastructure is being strengthened in different regions of the country including NER by setting up of Mega fruit parks equipped with modern technological interventions, and creation of adequate specialized cold storage facilities and skilled manpower so that in this sector can provide higher returns. Development of this sector is a necessity in these hilly states of NER because surface transport has not properly developed and it poses a major problem in marketing of these hugely abundant produce as fresh fruit. The presence of large amounts of surplus produce provides opportunities to the NER in general and Arunachal Pradesh in particular to process the produce which will lead to better value addition and return to the growers. Attractive financial support and the various subsidies and incentives extended by GoI under SAMPADA (Scheme for Agro-Marine

Processing and Development of Agro Processing Clusters) sets the stage for entrepreneurship development in food processing in NE India a lucrative option.

SWOT Analysis of Fruit juice and Indigenous beverages processing

Impact of Internal Environmental Factors (Resources Availability and Mobilization)	
<u>Strengths</u>	<u>Weaknesses</u>
1. Arunachal is the natural reservoir of fresh and good quality fruits like kiwifruit, apple, orange, pineapple, banana etc.	1. India contributes only 1% of the global market of the fruit processing industry.
2. The fruit extract can be used for the food items like jam, jelly having permissible, sugar and preservatives.	2. NE India lacks modern harvesting technologies and cold chain infrastructure.
Impact of External/Task Environmental Factors (Market Feasibility and Response)	
<u>Opportunities</u>	<u>Threats</u>
1. The Government of India is encouraging for new entrepreneurship in the food processing sectors.	1. Food processing sector in general suffers from seasonality constraints.
2. Logistics infrastructure is being strengthened in different regions of the country particularly in proximity to the plant recourse catchment area.	2. These sectors essentially need strategic supply chain mechanism that is communication, cold storage facilities etc. Government should have to create effective marketing infrastructure.
3. Government is promoting to set up Mega food parks equipped with modern technological interventions and creation of adequate specialized cold storage facilities and skilled manpower.	3. The state and non-state actors should invest in these sectors. Presently investment in these sector is null or negligible.

II. Oyster Mushroom Cultivation

Oyster mushrooms (*Pleurotus* spp.) and Shiitake mushrooms (*Lentinula* spp.) are next two edible mushrooms after button mushroom (*Agaricus* spp.) in terms of production and account for about 14% of the total world production. China is the leading producer of oyster mushrooms, contributing about 88% of the total world production, followed by South Korea, Japan, Italy, Taiwan, Thailand and Philippines. India produces approximately 1.0 lakh tonnes of mushrooms annually with the major share of 89% being contributed by button mushrooms and 5.6% by oyster mushrooms. The main market for Indian mushrooms is the United States of America. In India, production of oyster mushrooms is estimated to be 6400 tonnes (year

2011) which comes from Tamil Nadu, Punjab, Orissa, Kerala, Andhra Pradesh, Himachal Pradesh, Delhi, A&N Islands, Tripura, Assam, Bihar, Nagaland, West Bengal, Chattishgarh and Mizoram. Among Northeastern states, Tripura and Assam produce 100 tonnes each whereas Nagaland and Mizoram produce 75 and 50 tonnes respectively. The share of Arunachal Pradesh is estimated to be merely 5 tonnes per annum.

To illustrate what can be accomplished, an examination of mushroom production in China is very informative. In 1986, the total production of edible mushrooms in China was 540,000 MT, having a value of U.S. \$429 million and mushrooms export earned U.S. \$160 million. Compared to 1980, the 1986 figures represent an increase of 289% in production, an increase of 300% in value, and an increase of 90% in export value. In 2000, the total production of cultivated edible mushrooms in China was 6.63 million MT, with 479,531 MT exported earning U.S. \$602 million although it was only 7.2% of total production was exported and home consumption accounted for 92.8%.

Cultivation of Oyster and Shiitake mushrooms is an important agricultural and industrial business in China, Japan, and South Korea. The techniques of their cultivation under controlled or semi-controlled environmental conditions in plastic bags using various substrates are well established. For low-cost oyster mushroom cultivation technology, Upadhayay (2011) has calculated an ensured profit of Rs. 85,000 and Rs. 190,000 per annum to small scale producer out of an investment of Rs. 80,000 in poly house and mud house based mushroom production unit with a production capacity 0.5-4.0 tonnes and 7.0-7.5 tonnes respectively from six crops in a year. Large scale cultivators are expected to reap a profit of Rs. 24.70 lakhs per annum from an investment of approx. Rs. 44.00 lakhs from a production with annual capacity of 95-100 tonnes. The profit from large scale cultivation is more in subsequent years as refurbishment cost is lesser in comparison to small scale cultivation units.

Low cost, simple production technology, direct use of agro-forest wastes as substrates, suitability of climate ranging from sub-tropical to temperate are some of the most important advantages that may develop oyster mushroom cultivation based enterprise in entire Northeast India in general and Arunachal Pradesh in particular. A large amount of agricultural wastes is generated from the staple food crops such as paddy, maize, millet, wheat and pulses, and horticultural crops like banana, citrus, papaya, potatoes, sugarcane, pine apple etc. that are grown on a large scale in different parts of the state (Table 1).

Table 1: Area of cultivable land, Major Crops and amount of agricultural waste in Arunachal Pradesh

Crops	Sown Area (ha)	Grain Production (x100 kg)	Agricultural waste (x100 kg)
Paddy	121570	233992	700000
Wheat	3699	5872	22000
Maize	45061	64714	300000
Millet	21661	20038	55000
Pulses	8552	9056	1050
Total	200543	333672	1078050

Source: Arunachal Pradesh Statistical Data (Year 2011)

Besides, agricultural wastes, diverse type of forests found in the state support a huge quantity of several varieties of lingo cellulosic wild plants that can be used as alternative substrate material for mushroom cultivation. The mushroom research group in Rajiv Gandhi University has recently standardized the cultivation technique of oyster mushroom on one such wild grass giving higher yield in comparison to the paddy straw considered so far as the best substrate for oyster mushrooms.

Arunachal Pradesh has very good prospect of becoming a leading mushroom producer due to following advantages:

1. Very conducive climate for year-round of different varieties of these mushrooms (heavy rainfall 164 to 5600mm), a moderate temperature range 15-30⁰C), high humidity 70-80% prevailing throughout the year).
2. Availability of cheap of agro forestry wastes in plenty including paddy straw which can be used as a substrate for mushroom cultivation, thereby also minimizing the environmental pollution arising due to burning of these lingo cellulosic wastes. The spent substrates can be utilized for fertilizers or soil conditioners in agriculture.
3. Mushroom cultivation technology is not only cheaper and highly profitable but at the same time comparatively much simpler and requiring less sophisticated equipment. They can be cultivated by using primitive farming techniques in rural areas or by using high technology in populated regions.
4. Mushroom cultivation is labour intensive and labour is plentiful in the state.
5. Availability of huge domestic market as tribal population of entire Northeast India is very fond of mushroom as food.

Despite of all the favourable conditions, oyster mushroom fanning has not gained momentum in Arunachal Pradesh. The important factors responsible for impeding the growth of Oyster mushroom farming in the state are:

1. Lack of awareness about Oyster mushroom cultivation and associated benefits.
2. Lack of technical know-how and post-harvest management strategies.
3. Inadequacy and non-availability of quality mushroom spawn (mushroom seeds) for growers.
4. Absence of organized marketing strategies for selling the produce, and

- Lack of awareness regarding on-going centrally sponsored schemes and existing financial supports from banks and other government agencies.

A major constraint in mushroom production is non-availability of quality spawn at low costs. Spawn production technology needs only moderate investment for establishing a laboratory, with basic equipments and accessories. One spawn laboratory with total production capacity of 50 kg per day can satisfy the demand for 1000 kg mushroom production per day and can earn a profit of about Rs. 30,000 per month. Hence, setting up of mushroom spawn production laboratories is also a profitable venture which will not only accelerate the mushroom production with the dissemination of latest technical know-how to the farmers but also provide employment opportunities to many unemployed youths. With such ventures, they may open agri-business centres providing expert services and advice to farmers on cropping practices, technology dissemination, crop protection from pests and diseases and market trends. Besides spawn supply to large number of mushroom growers, they may engage themselves directly in mushroom production which will help them to ensure the quality of their laboratory produced spawn to be marketed.

The domestic market in Arunachal Pradesh also has a good demand where mushrooms can be marketed either fresh or after dehydration. Besides, there is good overseas market for mushrooms with huge demand for dried and canned mushrooms. The processing of surplus production can be dried or canned for exports with the technical and financial support available from the Ministry of Food Processing Industries of the Government of India which is the main central agency responsible for developing a strong and vibrant food processing sector including high protein food with an economic and social responsibility to create increased job opportunities in rural community. Processed mushrooms provide a better return to the large scale commercial farmers.

Further, easy funding for mushroom cultivation is available. NABARD has enlisted oyster mushroom cultivation as one of the model bankable projects to be supported by various banks with 85-90% loan to entrepreneurs' @12% interest.

SWOT Analysis of Oyster Mushroom Cultivation

<u>Impact of Internal Environmental Factors (Resources Availability and Mobilization)</u>	
<u>Strengths</u>	<u>Weaknesses</u>
1. Mushroom cultivation is possible throughout the year as it does not suffer from seasonality constraint.	1. For commercial purpose packaging remains a major weakness for the operators. Appropriate strategies would be device in consultation with the leading partners in the field of packaging.
2. Input cost and recurring expenditure for mushroom cultivation is comparative lower.	
3. There is comparatively low risk of issues like crop failure.	2. Mushroom suffers from perishability constraints, in order to generate

<p>4. Arunachal Pradesh is a state in India where women community dominantly participates in agro-based farming and selling of product in local market. In this favorable social and cultural variable, mushroom could be another success story for the women entrepreneurs. They can also work by creating self-help group (SHG).</p>	<p>marketing efficiency the permissible level of preservatives may be used to extend the quality life of the mushroom. However, in local market attempts will be made to distribute fresh mushroom (without preservative). So that it could create another niche market.</p>
<p><u>Impact of External/Task Environmental Factors (Market Feasibility and Response)</u></p>	
<p><u>Opportunities</u></p>	<p><u>Threats</u></p>
<p>1. Most favourable and conducive environmental condition for mushroom cultivation.</p>	<p>1. There are issues of preservation and early expiration of mushroom particularly in packaged condition. These issues would be adequately addressed if ACIC is awarded to RGU.</p>
<p>2. The Tribal population of Arunachal Pradesh have a strong liking mushroom as food.</p>	<p>2. The concept of branding of packet mushroom in the north-east. However, some miniscule attempts are visible. Appropriate branding strategy would be devised to ensure quality and reliability.</p>
<p>3. Mushroom is considered as a vegetable and palatable dish across India.</p>	<p>3. Mushroom being a food product is required to have appropriate quality certificate from the competent authority (e.g. FSSAI etc.).</p>
<p>4. In North-Eastern region mushroom cultivation is not well structured except some pockets in Tripura and Meghalaya.</p>	

III. Native Ornamental Fish Culture

Ornamental fish keeping, seed production and supply have become an important commercial component of aquaculture and thereby the sector holds potential for generating income for the women, unemployed youth and fish farmers. More and more people are gradually entering in the lucrative business of raising and breeding ornamental fish through the avenue of entrepreneurship development. Arunachal Pradesh being a mountainous state of Indian Eastern Himalayan region is not only bestowed with more than 218 species of native fishes but also possesses mild climate, copious open water habitats and ethnic populace with a scope of marketing of ornamental candidates in the neighbouring states.

To augment the process of women empowerment, the government at the state and national

level emphasized on ornamental fish trade. The trade has a huge prospect globally and has emerged as a lucrative commercial aquaculture venture. The ornamental fish keeping which started as a hobby across the world, owing to its burgeoning demand in national and international markets, has turned out to be a commercially traded commodity in different parts of the world. The captive rearing and seed production of many wild caught ornamental fishes of this state are yet to be standardized but illegally their trade is being continued based on direct collection and supply from the wild sources. The breeding and rearing of ornamental fish doesn't require much space and can be undertaken even in small area as backyard activity. Such cottage based enterprise is highly suitable for tribal societies of the particularly for women and their economic empowerment.

Recently, Rajiv Gandhi University, Itanagar has been succeeded to standardize more 16 ornamental fishes of Arunachal's open waters for raising and seed production in captivity alongwith their biological and aquarium rearing techniques. These may undoubtedly conserve those species from extinction in wild due to steadily increasing anthropogenic pressure as well as natural habitat crisis and make this region a potential global spot for expansion of the trade to overseas markets. Imparting the knowledge to the communities as technical and entrepreneurial skill through proposed ACIC on a business mode encompassing supplementary activities such as manufacturing of aquaria, packaging and marketing of aquarium fish and aquarium accessories and providing periodical maintenance services to aquarists will create a better lively hood option for native people. Aquarium manufacturing will also be encouraged through which employment opportunities can be generated where some unemployed youth, women in a limited scale can start manufacturing. Ornamental fish culture in captive condition and their trade still have not been well planned in the North-eastern region particularly in Arunachal Pradesh of India, a mega-biodiversity centre and a hotspot .Therefore, the government organizations and some NGOs should play imperative role to the same. Large scale ornamental fish production programmed with the help of mass culture is hoped to be the best measures for conservation of habitat and threatened species besides being creating substantial job opportunities for the locals.

Study reveals that the state has high opportunity for used as natural stock of native potential aquarium fish for production of ornamental fishes through artificial breeding. Artificial breeding has manifold advantages like trim down the environmental pressure by lowering down wild collection, helps in employment generation through development of low cost

enterprise like aquarium fish breeding and selling centre. Ninety five per cent of stream and wetland's ornamental fish export is based on wild collection which could be avoided if the proposed activities are promoted through ACIC. Mass culture of native aquarium fish has manifold advantages as it reduces pressure on the natural habitats, maintained ecological balance of our local environment by restoration of species, restoration of the diversity and make possible of the conservation of rare, endangered and endemic species of the locality.

Business Plan for Ornamental Fish:

The proposed RGU-ACIC has identified fifty four species which can be collected from the nearing catchment areas. The mentor group of this project has mentioned that out of 53 species 16 species (First 16 species of table no. 1) are domesticated i.e. it can be replicated in a specially designed laboratory set up. Here lies the efficacy and core competency of the proposed RGU-ACIC. Most of the species are on the verge of extinction. The nodal department has been working hard to enhance the new species that would be domesticated in near future. This essentially signifies the commitments of the University as a whole and the Department in particular towards achieving UN-SDGs predominantly the goal number 14 concerning to "Life below water". The non-domesticable species are captured from the nearby catchment areas. The indicative list of potential ornamental fishes from Arunachal Pradesh is given below:

Table 1: Indicative List of Potential Ornamental Fishes from Arunachal Pradesh

Sl. No.	Name of Species	Marketable Size and conditions (Average Cycle Time)	Average Selling Price per Piece (in INR)
1	<i>Channa barca</i>	2 months	250
2	<i>Channa blehari</i>	2 months	200
3	<i>Badis singenensis</i>	2 months	60
4	<i>Mystus tengara</i>	2 months	60
5	<i>Pethia gelius</i>	2 months	60
6	<i>Trichogaster chuna</i>	2 months	60
7	<i>Trichogaster fasciata</i>	2 months	60
8	<i>Amblyceps apangi</i>	2 months	50
9	<i>Amblyceps arunachalensis</i>	2 months	50
10	<i>Botia dario</i>	2 months	50
11	<i>Botia rostrata</i>	2 months	50
12	<i>Danio rerio</i>	2 months	50
13	<i>Oreochthys crenuoides</i>	-	50
14	<i>Devario aequipinnatus</i>	2 months	40

15	<i>Devario assamensis</i>	2 months	40
16	<i>Devario devario</i>	2 months	40
17	<i>Channa aurantimaculata</i>	2 months	250
18	<i>Channa stewartii</i>	2 months	200
19	<i>Channa striata</i>	2 months	200
20	<i>Balitora brucei</i>	1 months	100
21	<i>Chaca chaca</i>	2 months	100
22	<i>Garra gotyla</i>	2 months	90
23	<i>Garra birostris</i>	2 months	90
24	<i>Garra arunachalensis</i>	2 months	90
25	<i>Psilorhynchus balitora</i>	2 months	80
26	<i>Macrognathus aral</i>	2 months	80
27	<i>Macrognathus pancalus</i>	2 months	80
28	<i>Opsarius barna</i>	2 months	70
29	<i>Opsarius tileo</i>	2 months	70
30	<i>Barilius bendelisis</i>	2 months	70
31	<i>Ompok bimaculatus</i>	2 months	70
32	<i>Ompok pabo</i>	2 months	70
33	<i>Batasio fasciolatus</i>	2 months	70
34	<i>Batasio batasio</i>	2 months	70
35	<i>Batasio spilurus</i>	2 months	70
36	<i>Gagata cenia</i>	2 months	70
37	<i>Exostoma labiatum</i>	2 months	70
38	<i>Glyptothorax dikrongensis</i>	2 months	70
39	<i>Pethia ticto</i>	2 months	60
40	<i>Mystus carcio</i>	2 months	60
41	<i>Mystus dibrugarensis</i>	2 months	60
42	<i>Conta conta</i>	2 months	60
43	<i>Aborichthys elongatus</i>	2 months	50
44	<i>Barilius vagra</i>	2 months	50
45	<i>Barilius barila</i>	2 months	50
46	<i>Lepidocephalichthys arunachalensis</i>	2 months	50
47	<i>Lepidocephalichthys annandalei</i>	2 months	50
48	<i>Schistura devdevi</i>	2 months	50
49	<i>Schistura tirapensis</i>	2 months	50
50	<i>Physoschistura dikrongensis</i>	2 months	50
51	<i>Rasbora rasbora</i>	2 months	50
52	<i>Amblycep waikhomi</i>	2 months	50
53	<i>Parambassis bistigmata</i>	2 months	50

From the above table no. 1 it is depicted that all the ornamental fish generally take a cycle of 2 months period excepting one species (*Balitora brucei* take 1 month period). The proposed RGU-ACIC will focus on the laboratory developed domesticated ornamental fish. The domesticated ornamental fish can be ranked in terms of three broad dimensions / considerations such as Average Market Demand, Average Market Price and Average Productivity. Finally the best possible combination will be identified so that the RGU-ACIC can optimize the business opportunity for the stability, growth and perpetuity of the budding entrepreneurial firm.

Basic infrastructure and processing for the commercial cultivation of domesticable ornamental fish is given below.

Laboratory technique: Standard Aquarium Monitoring Protocol

Fish feed: Commercial feed (Formulated)

Infrastructure: Water supply, Air Pump, Aquarium, Cemented Cisterns etc.

Size of the room: 10ft x 15ft

Aquarium size: 2ft x 1ft x 1.5ft

Supply of regular oxygen: Through Aerator

Captive tank would be cemented to prevent undesired pH level.

SWOT Analysis of Domesticated Ornamental Fish Cultivation

<u>Impact of Internal Environmental Factors (Resources Availability and Mobilization)</u>	
<u>Strength</u>	<u>Weaknesses</u>
1. Abundance of wild fish is available in the near vicinity of proposed RGU-ACIC.	1. RGU-ACIC does not have dedicated Department of Fishery as of now. However, the department has well acclaimed researcher in the domain of fishery belonging to Zoology Dept.
2. The RGU-ACIC has strong research & development wing that can domesticate 16 wild ornamental fishes out of available 53 species.	
3. The proposed ACIC has strong knowledge and lab support to achieve its success (both internal network or resources and external resources / agencies)	
4. The applicant is Rajiv Gandhi University (RGU-ACIC), which is a Central University, is having 25 teaching departments / Institutes with cross-	

functional 164 faculty members with good research and development track record. According to NIRF ranking 2019, the university has secured the rank among top 100.	
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<u>Impact of External/Task Environmental Factors (Market Feasibility and Response)</u>	
<u>Opportunities</u>	<u>Threats</u>
1. There is no such incubation centre for ornamental fish in north-eastern region. Even though, the availability of wild ornamental fish is highly significant in the region.	1. The supply chain of entire business plan may suffer from desired level of accessibility that may hinder the superior performance of the firm.
2. The proposed ACIC can develop budding entrepreneur / firm with trained / adequately competent in ornamental fish for commercial production so that, it could achieve and grab higher opportunity in the export market.	2. The existing operators is scattered that needs certain amount of harmonisation of lead functions.
3. The region can have the potential to offer unique ornamental fish species which is the USP for the project.	3. The ornamental fish marketing require appropriate standards preferable exportable standards of packaging so that the quality of ornamental fish can be ascertained and marketed.

5. List infrastructure (Space, conference/meeting room, cafeteria, lab space, furniture, computers, utilities etc) and services (IT, technical, legal, financial) to be provided (Indicative list)

- **Space:** The University already allocated proposed space of 4000 sq ft for ACIC with detail construction plan for three required workshops against each of the proposed components.

The ACIC shall also be equipped with one cold storage, Lecture Hall for mentors, COE office with attached toilet along with one demonstration room. All these infrastructural facilities have been proposed in RGU campus, Rono Hills being distributed within ground, first and second floor conveniently.

- **Laboratory linkages & facilities with lead Department:** All the mentioned workshop shall remain attached with the respective Departmental laboratories through the lead and participating Departments. The laboratory facilities of the Lead Department shall act as

incubate support for respective workshops on three domains of the proposed activities along with the mentors.

- **Furniture and computer facilities:** These have been furnishing with building plan and shall be provided from matching grants as per requirements of each the identified Unit.
- **Equipments:** The ACIC shall use all the required equipments/instruments available with lead/ participating Departments of RGU along with the related equipments under operation in the ‘Central Instrumentation Facilities’ of the University.

6. Provide a proposed PERT chart of operational programme year wise for 5 years

The ACIC would device its activities in close co-ordination and consultation with the relevant appropriate agencies and stakeholders. For each product category, the desired resources will be identified and deployed drawing both from internal and external resources. There will be close co-ordination with all the stakeholders and important elements of task environment. The centre will take appropriate support from the state government as well as central government departments. The proposed ACIC would also monitor the identified market, its responses, requirements and feedback so that the market dynamics could be incorporated and reflected during the process of new incubation. The proposed PERT chart of the centre is conceptualised as given below:

Item of Work	Time Schedule activity (in months)									
	0-6	7-9	10-12	13-15	16-21	22-24	25-36	37-48	49-60	
Setting up project infrastructure and preparation of the work plan.										
Search for entrepreneurs and selection for incubation and mentoring.										
Collaboration with relevant/ concerned Ministries/ External Knowledge Bodies/Organisations/Agencies for consultations and providing special										
Formation of Working Group consisting of experts from relevant fields.										
Finalisation of design of module Incubation, Training and Mentoring, and its scope and schedule.										
Identifying experts both in-house and external with assigning responsibilities to the incubation training process.										

II. OYSTER MUSHROOM CULTIVATION

Target Market:

Sl. No.	Type of Market	Coverage	Use of Preservation
1.	Local	Less than 10 K.M. (Fresh Mushroom)	Not Required
2.	Local / Regional	Less than 100 K.M. and valid upto 7 Days after packaging.	Low concentration of preservative with good packaging
3.	National	More than 100 K.M. and valid upto 1 month after packaging.	Moderate concentration of preservative within permissible range and good packaging.

III. NATIVE ORNAMENTAL FISH CULTURE AND BREEDING

Target Market:

As per the market feedback, the proposed domestic and international market may be targeted as mentioned below:

Domestic Market	International Market
1. Itanagar → Guwahati → Hathibagan Haat, Kolkata	1. South East Asian Market (Nepal, Bhutan, Myanmar and South & East part of China)
2. Itanagar → Guwahati → Dasnagar, Howrah	2. European Countries
3. Itanagar / Pasighat → Bongaigaon / Guwahati → Hathibagan Haat, Kolkata	3. United State of America
4. Itanagar / Pasighat → Bongaigaon / Guwahati → Dasnagar, Howrah	
5. Itanagar / Pasighat → Bongaigaon / Guwahati → Delhi and NCR (Gurgaon and Noida)	
6. Itanagar / Pasighat → Bongaigaon / Guwahati → Bangalore	

The proposed marketing plan is designed based on the inputs, insights and available information from the domain market. However, this marketing plan can be manifested and strengthened if it is adequately supported by massive nationwide awareness campaign partly of which government and other agencies may take initiative in this direction. The infrastructural supports like transportation, preservation etc may have to be augmented to energize the supply chain experience. This may be initiated to promote first generation entrepreneurial business primarily based on agro-based inputs predominantly for the north-eastern region of the country.

8. Provide action plan to meet business support services

- Setting up project infrastructure and preparation of the work plan.
- Formation of Captive start-up firms by each of the entrepreneurs after completion of the incubation process. The firms will be further incubated.
- Collaboration with relevant/ concerned Ministries / External Knowledge Bodies / Organisations / Agencies for consultations and providing special inputs.
- Formation of Working Group consisting of experts drawn from relevant fields.
- Finalisation of design of module Incubation, Training and Mentoring, and its scope and schedule.
- Identifying experts both in-house and external with assigning responsibilities for the incubation training process.
- Incubation, training and mentoring of select budding entrepreneurs- search for entrepreneurs and selection for incubation and mentoring.
- Formation of Captive start-up firms by each of the entrepreneurs after completion of the incubation process. The firms will be further incubated and guided by the ACIC.
- Separations of the firm from the ACIC in order to position as a unique legal entity (a Company) with its assets and limited liabilities.
- The ACIC would continue as resource centre to confine only with providing advisory, consultancy support to these new companies.

9. Outline mentoring, counseling and training efforts

The board members shall act as a mentor in the proposed ACIC along with selected other mentors from collaborating Institutes / organizations in each of the proposed areas of activities. So, ACIC will also explore and co-opt the experts from the University and other relevant external agencies as per the need of the programme. The expert member shall comprise of academicians, researchers from the domain disciplines, professionals, practitioners both from the government and private organisations including R&D institutions. Incubatees of the ACIC shall specially be counselled for sources of business startups, sources of finance along with other relevant promotional events and means reducing location specific constraints in the domain of their specific interests followed by necessary training time to time. In addition, periodical up gradation of the incubatee will also be performed towards dissipating and providing the hand on training on updated/ innovated

technology if any. The CEO of the ACIC will monitor the need and frequencies of such activities for each of the proposed areas based on the allocated budget of the centre.

10. Provide details of previous products/innovations developed and deployed

Oyster Mushroom:

This oyster mushroom seed production distribution and selling of the cultivated product had already been initiated by **Women Technology Park** of Rajiv Gandhi University since 2015. The lead department is directly involved with the process of this trade in the region.

Native Ornamental Fish Culture and Breeding:

The following native ornamental fishes were tried for aquarium trade and marketed through **Madhukallya Fish Firm**, North Lakhimpur, Assam. The Details of the fishes are given below:

Table 2: Details of certain previous products under aquarium trade from RGU

Sl. No.	Name of Fish	Average Selling Price per Piece (in INR)
1.	<i>Devario equipinnatus</i>	40
2.	<i>Garra annandalei</i>	90
3.	<i>Trichogaster chuna</i>	60
4.	<i>Trichogaster fasciatus</i>	60

11. Financial Sustainability and revenue generation model

- Incubation infrastructure can be accessed by the other knowledge society in a restricted mechanism which may earn revenue for the centre.
- The centre can organize frequent training programme on new technology absorption, entrepreneurship or other emerging areas for the existing players of the industry.
- The centre can be used on commercial basis by other firms as their extended Research and Development wing on payment basis.
- The proposed ACIC may be used by government for employment examination purpose or online test or computer based test if adequate resources are made available.
- The ACIC experts can also work as consultant for the respective industry and earn revenue for the centre on sharing basis.
- The ACIC may also act as an implementing agency for government dream projects or policy planning in relevant categories.

12. Proposed plan for use of grant-in-aid (please see guidelines carefully)

- Recurring grants includes all current liabilities including salary, remuneration, budget for travel, POL (expenditure on power), consumables etc.
- Capital grant primarily will be used for asset creation like setting up annexe to existing building, laboratory other teaching-learning infrastructure, teaching aids, electronic devices / instruments etc.

13. Detailed Budget Plan (in the format provided in Annexure VIII, next page)

ATAL COMMUNITY INNOVATION CENTRE - FORMAT OF THE PROPOSED BUDGET PLAN

Total AIM Grant-in-Aid requested: Rs. 245 Lakh

Total Contribution from the Funding Partner and Other Sources (FP & OS*) : Rs. 245 Lakh

S. No.	Items*	Amount (Rs. lakh)											
		Year 1		Year 2		Year 3		Year 4		Year 5		Total	
		AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS
A.		Item-wise Capital expenditure											
1	Office equipment (if any)	3	0	0	0	1	0	0	0	0	0	4	0
2	Makerspace / Fab Lab	85	75	0	5	1	6	1	5	0	5	87	96
3	Sector(s) specific /Area of focus related equipment (if any)	12	0	0	1.5	0	3	0	1.5	0	1	12	7
4	Furnishing of space for the ACIC (if any)	3	3	0	0	0	0	0	0	0	0	3	3
5	Backup power supply	12	12	0	0	0	0	0	0	0	0	12	12
6	Cold storage warehouse	12	0	0	0	0	0	0	0	0	0	12	0
	Total A	127	90	0	6.5	02	9.0	01	6.5	0	6.0	130	118
B.		Operating/ Recurring expenditure											
1	Personnel	15	6	16	6.5	17	7.0	18	7.5	19	8.0	85	35
2	Events												
	Ideathons	1	1	1	1	1	1	1	1	1	1	5	5
	Workshops & Seminars	1	1	1	1	1	1	1	2	1	2	5	7
	Capacity Building Programs	1.5	1.5	0	1.5	0	1.5	0	1.5	0	1.5	1.5	7.5
	Outreach Events (Add more rows as required)	1.5	1.5	0	1.5	0	1.5	0	1.5	0	1.5	1.5	7.5
3	Support Services to Startups / Innovators (such as technology, IPR legal, accounting, marketing, etc. support)	1	1	0	1	0	1	0	1	0	1	1	5
4	Domestic Travel	1	2	0	2	0	2	0	2	0	2	1	10
5	Utility and maintenance	1.5	1.5	0	1.5	0	2.5	1.5	2.5	2	2.5	5	10.5
6	Miscellaneous expenses, if any	1.5	6.5	2	2.5	0	2.5	1.5	6.5	2	6.5	7	24.5
7	Seed Fund, if any	3	3	0	3	0	3	0	3	0	3	3	15
8	(Add more rows as required)												
9	Total B	28	25	20	21.5	19	23	23	28.5	25	29	115	127
	Total projected cost (A+B)	155	115	20	28	21	32	24	35	25	35	245	245

C.		Projected Income ^ψ											
1	Grant proposed from AIM	155	-	20	-	21	-	24	-	25	-	190	-
2	Any other grants from government / other sources, if applicable (add a row for every grant)		30		14		16		18		18	0	96
3	Contribution from the Funding Partner		0		0		0		0		0	0	0
4	Contribution from Applicant (Host Institute / Promoter)		85		14		16		17		17	0	149
5	Contribution from other collaborators / Partners		0		0		0		0		0	0	0
6	Projected revenues		0		0		0		0		0	0	0
7	Any other source of Income (Add more rows as required)		0		0		0		0		0	0	0
8	Total Projected Income C	155	115	20	28	21	32	24	35	25	35	245	245
D.	Projected Surplus / Deficit, if any	0	0	0	0	0	0	0	0	0	0	0	0

Note: This is not an exhaustive list and can be extended as per suitability.

* FP&OS stands for Funding Partner and Other Sources

** Please provide detailed break-up of all expenses (E.g. list of equipment, break-up of the manpower, other recurring expenditure as annexures to the budget)

*** Please provide a break up of all the expenses that are being paid through the AIM grant and through other means of financing the project

^ψ Attempts would be made to explore grant / investment, financial support from the indicative organisations as follows:

1. Income equivalent: Sharing of movable and immovable resources of the applicant as approved by the competent authority time to time.
2. Department of Industries, Government of Arunachal Pradesh
3. DST & DBT Grant
4. Indian Oil Corporation (Assam Oil)
5. NABARD
6. Ministry of Commerce, Government of India
7. National Science & Technology Entrepreneurship Development Board (NSTEDB)
8. Members of Parliament Local Area Development Scheme (MPLAD)
9. Entrepreneurship Development Institute of India (EDII)
10. Any other Funding Institutions as deemed fit.

14. Describe the proposed collaborations with industries / academia / others and how these partnerships will help ACIC and the community

Close linkages with following institutions/organization would be established for carrying out the proposed activities and mentors would also be invited from them.

Indicative list of Ministries/External Knowledge Bodies/Organizations/Agencies for consultations and providing special inputs
Focus areas/Sector: Fruit juice and Indigenous beverages processing
<ol style="list-style-type: none"> 1. Ministry of Food Processing Industries, GoI. 2. Centre of Indian Institute of Crop Processing Technology, Regional Centre, Guwahati 3. Food Quality Testing Labs, Tezpur, Assam 4. Department of Food Technology, Tezpur University, Assam 5. Indian Institute of Packaging, Kolkata (Ministry of Commerce & Industry, GoI). 6. Rajiv Gandhi Govt. Polytechnic, Itanagar 7. Department of Agriculture and Marketing, Govt. of Arunachal Pradesh 8. IHM Kolkata / Guwahati / Shillong 9. NABARD, Itanagar 10. Arunachal Pradesh Rural Bank, Naharlagun 11. Arunachal Pradesh State Co-operative Apex Bank Ltd., Naharlagun 12. EDI / NIESBUD / IIE /NIAM etc.
Focus areas/Sector: Oyster Mushroom Cultivation
<ol style="list-style-type: none"> 1. Directorate of Mushroom Research (ICAR), Solan, Himachal Pradesh 2. Ministry of Food Processing Industries, GoI. 3. Centre of Indian Institute of Crop Processing Technology, Regional Centre, Guwahati 4. Department of Food Technology, Tezpur University, Assam 5. Food Quality Testing Labs, Tezpur, Assam 6. Indian Institute of Packaging, Kolkata (Ministry of Commerce & Industry, GoI). 7. Department of Agriculture and Marketing, Govt. of Arunachal Pradesh 8. NABARD, Itanagar 9. Arunachal Pradesh Rural Bank, Naharlagun 10. Arunachal Pradesh State Co-operative Apex Bank Ltd., Naharlagun 11. EDI / NIESBUD / IIE /NIAM etc.
Focus areas/Sector: Native Ornamental Fish Culture
<ol style="list-style-type: none"> 1. ICAR Central Institute of Freshwater Aquaculture, Bhubaneswar

2. Ministry of Food Processing Industries, GoI.
3. ICAR Central Inland Fisheries Research Institute, Barrackpore
4. Department of Food Technology, Tezpur University, Assam
5. Food Quality Testing Labs, Tezpur, Assam
6. Indian Institute of Packaging, Kolkata (Ministry of Commerce & Industry, GoI).
7. Department of Agriculture and Marketing, Govt. of Arunachal Pradesh
8. ICAR Central Institute of Fisheries Education, Bombay
9. NABARD, Itanagar
10. Marine Product Export Authority of India.
11. Arunachal Pradesh Rural Bank, Naharlagun
12. Arunachal Pradesh State Co-operative Apex Bank Ltd., Naharlagun
13. State Fisheries Department, Govt. of Arunachal Pradesh.
14. EDI / NIESBUD / IIE /NIAM etc.

15. Describe the feasibility of attainment of various goals and deliverables (for 5 years) submitted as part of the application process

- The university has been promoting mushroom cultivation and started training to the prospective small-scale growers (mainly unemployed women) and PG students on mushroom cultivation and spawn production from the support grant received under three centrally funded schemes: (1) UGC sponsored Centre with potential for Biodiversity (UGC-CPE, 2002-2008), (2) DST sponsored Women Technology Park (DST-WTP 2005-2016), and (3) DBT sponsored Institutional Biotech Hub (DBT-BT Hub, 2013 onwards). The results were highly promising and training to the PG students is still continuing under DBT-BT Hub. Attempts were also made to commercialize the mushroom within the local vicinity at a very low scale and it was found viable and satisfactory. The revenue so generated through this experimental process has been reinvested in DST-WTP for its sustenance.
- Recently on state government initiative, India's first kiwi wine brand “Arun Kiwi” is being manufactured by Rhythm Winery, a subsidiary of Pune-based Hill Crest Fruit and Beverages Pvt. Ltd. using the green Kiwis produced in Arunachal Pradesh. This is the burning instance which justifies the argument that the state has lacked entrepreneurial attempt or incubation training despite of having abundance of natural resources

particularly in fruit production. Kiwi based wine has become popular in the Apatani Plateau. That gives the essence of successful entrepreneurship from the region. The success story of kiwi based wine project has been manifested by 'Tage Rita' a proud resident of Ziro, Arunachal Pradesh this signifies that the proposed RGU-ACIC would endeavour new success stories in the area of entrepreneurship of the region.

- For fruit juice purposes government of Arunachal Pradesh took initiatives at Along (Aalo) on a project 'pineapple juice'. However, the project failed primarily due to lack of incubation centres and infrastructural problems. Nevertheless, this government initiative miserably lacked in profit maximization model. The proposed ACIC-RGU would focus on generating entrepreneurial enterprises with private initiatives rather than being a state run entity. In recent times, the GoI has given a special emphasis on Skill Development through its landmark dream project 'Skill India'. RGU has also been empanelled as a nodal agency for implementation of such Skill Development Programme. This dynamic and conducive entrepreneurial ecosystem would foster success of this ACIC with flying colours.
- In the international market of native ornamental fish, the amount of export from India is very scanty although North-east India has significant role in the ornamental fish market. The department of Zoology, Rajiv Gandhi University has identified 53 species out of them 16 species can be reproduced in laboratory. If the ACIC is awarded that can help the unemployed youth women and landless farmers of the region.
- These real life cases exemplify the genuine need for setting up an innovation centre in the state on priority.
- The Act East Policy has significantly impacted on the transportation system that is connectivity of rail network, airport at Pasigat, Itanagar (under construction), establishing of Inter-State Bus Terminal System, elevated as 'Smart City' at Pasigat etc. All these recent development have made the most effective entrepreneurial ecosystem in the state.

C. Legal status of the entity (the SPV / proposed ACIC) and its governance policies

1. Legal status of the entity

The applicant is a Central University under the Ministry of Human Resource Development (MHRD), Government of India since 9 April 2007.

2. Proposed team, board members and governance structure

Patron-in-Chief of the Board: Vice-Chancellor, Rajiv Gandhi University

Sl. No.	Name of the Board Members*	Board Functionary	Expert Domain
1.	To be recruited if ACIC is awarded	CEO	
2.	Prof. D. N. Das	Chairman & Mentor	Zoology (Ornamental Fish)
3.	Prof. R. K. Singh	Advisor & Mentor	Botany (Mushroom Cultivation)
4.	Dr. Md. Harunar Rashid	Advisor & Mentor	Chemistry (Fruit and Indigenous Beverage)
5.	Dr. Gibji Nimasow	Advisor	Geography
6.	Dr. Pankaj Kumar	Advisor	Zoology
7.	Mr. Arindam Chakrabarty	Advisor	Management
8.	Mr. Firos. A.	Advisor	Information Technology
9.	Dr. Sunil Nandi	Advisor	Commerce
10.	Registrar, RGU	Member Secretary	

* Names of some professionals/mentor may also be included in the proposed board.

Proposed Non-functionary Staff Members of ACIC

Sl. No.	Non-functionary Staff Members	Designation
1.	To be recruited if ACIC is awarded	Researcher
2.	To be recruited if ACIC is awarded	MTS

The board will be governed by the rule of the ACIC. Recruitment of Core staff will be done as per rules and regulation of the university. The university will have an overall administrative control and would facilitate the ACIC as per its act and statutes and GFR.

The Lead Department along with the faculty resources of other relevant departments will be deployed to create the University In-house Resource Centre for incubation & mentoring process and will work in close collaboration with select external agencies.

Lead Departments from RGU for incubation & mentoring process
Focus areas/Sector: Fruit juice and Indigenous beverages processing
<ol style="list-style-type: none"> 1. Department of Botany: Lead Department 2. Department of Chemistry 3. Arunachal Institute of Tribal Studies 4. Department of Computer Science and Engineering 5. Department of Commerce 6. Department of Management
Focus areas/Sector: Oyster Mushroom Cultivation
<ol style="list-style-type: none"> 1. Department of Chemistry: Lead Department 2. Department of Zoology 3. Department of Botany 4. Department of Computer Science and Engineering 5. Department of Commerce 6. Department of Management
Focus areas/Sector: Native Ornamental Fish Culture
<ol style="list-style-type: none"> 1. Department of Zoology: Lead Department 2. Department of Botany 3. Department of Chemistry 4. Department of Commerce 5. Department of Management 6. Department of Computer Science and Engineering

3. Describe the proposed composition of the Board of directors: government representatives, policy makers, academicians, entrepreneurs, industry, professionals, investors, consultants etc. A multi-stakeholder board with adequate representation on a permanent basis as well as available on consultation should be planned.

Same as point number 2 above.

4. Plans to appoint the CEO and management team to ensure smooth running of the Innovation Centre.

As soon as ACIC is awarded to RGU the CEO will be appointed immediately as per rules and regulations provided by the Atal Innovation Mission, NITI Aayog by the proposed governing body of the centre.

Shri Nabam Epo

HEAD G.B.,
Doimukh, Gumto Circle
District Papum Pare (A.P.)

☎: 7085915247
8256974961

Ref. No.....

Date 26/09/2019

To
Mission Director
Atal Innovation Mission (AIM)
NITI Aayog, Sansad Marg
New Delhi – 110001

Subject: Declaration

Dear Sir

It is to declare that the proposed **Atal Community Innovation Centre Rajiv Gandhi University**, located at **Rono Hills, Doimukh-791112, Arunachal Pradesh** comes under a **rural area**. The innovation ecosystem is not well developed in this region and it can be considered as an unserved / underserved region for the purpose of application of Atal Community Innovation Centre, which is a program of Atal Innovation Mission under the aegis of NITI Aayog.

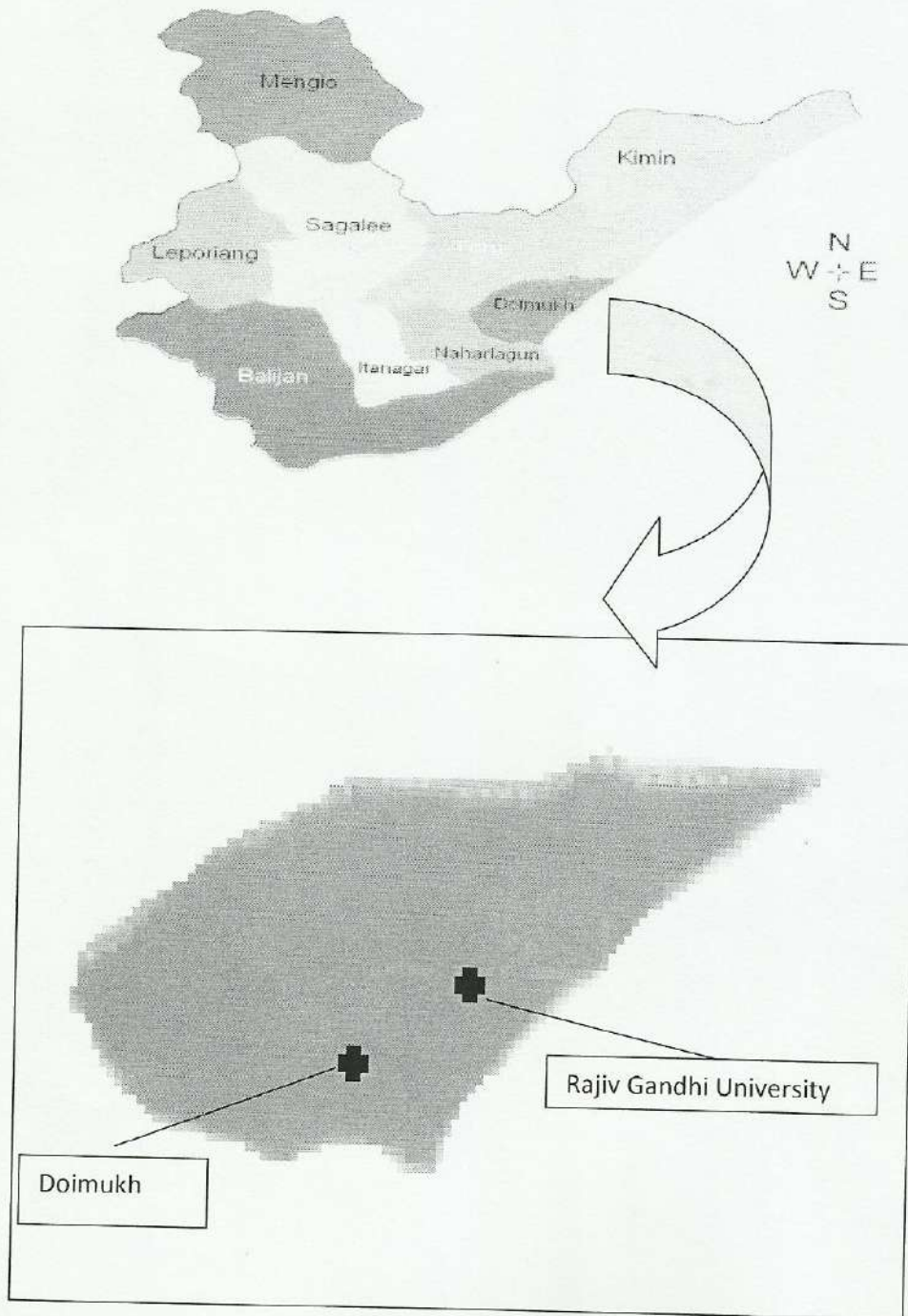
The certified map is also attached here to support the above declaration.



Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist. Papum Pare (A.P.)

Sarpanch

Gram Panchayat

Certified Location Map of Rono Hills, Doimukh




Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist., Papum Pore (A.P.)



GOVERNMENT OF ARUNACHAL PRADESH
OFFICE OF THE DEPUTY COMMISSIONER
PAPUM PARE DISTRICT, YUPIA.

DC

No DC/PP/Sch/PC/122/2019

Dated Yupia the 26th September, 2019.



To
The Mission Director,
Atal Innovation Mission (AIM),
NITI Aayog, Sansad Marg,
New Delhi - 110001.

Sub:- Declaration.

Dear Sir,

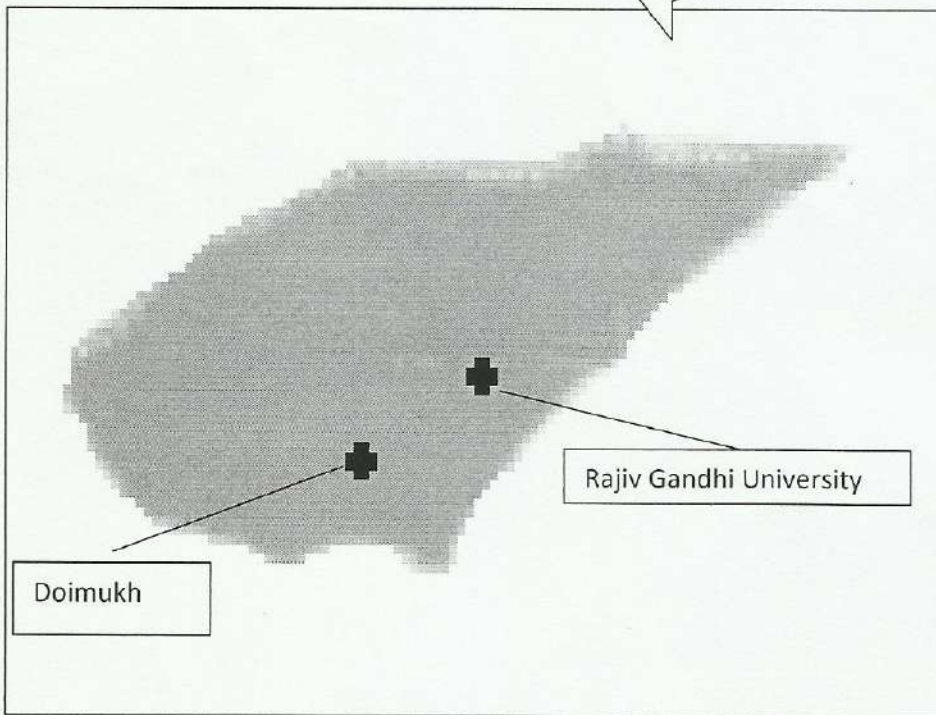
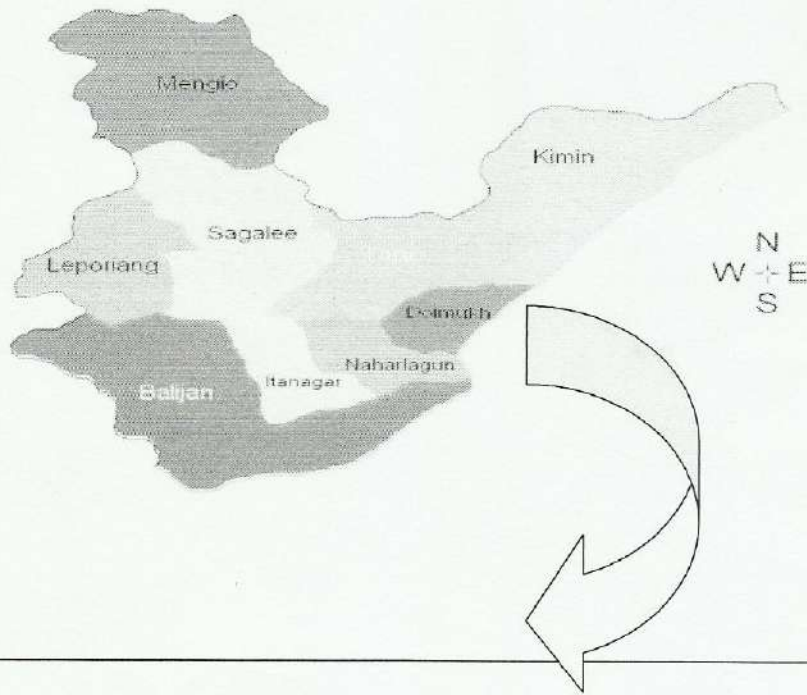
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The certified map (duly signed by the undersigned) is also attached here to support the above declaration.

[Pige Ligu]
Deputy Commissioner cum
District Magistrate
Papum Pare District

Yupia
Deputy Commissioner
Papum Pare District
Yupia, (A. P.)

Certified Location Map of Rono Hills, Doimukh



[Handwritten Signature]
Deputy Commissioner
Papum Pare District
Yupia, (A. P.)

Shri Nabam Epo

HEAD G.B.,
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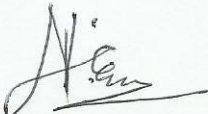
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NITI Aayog, Sansad Marg
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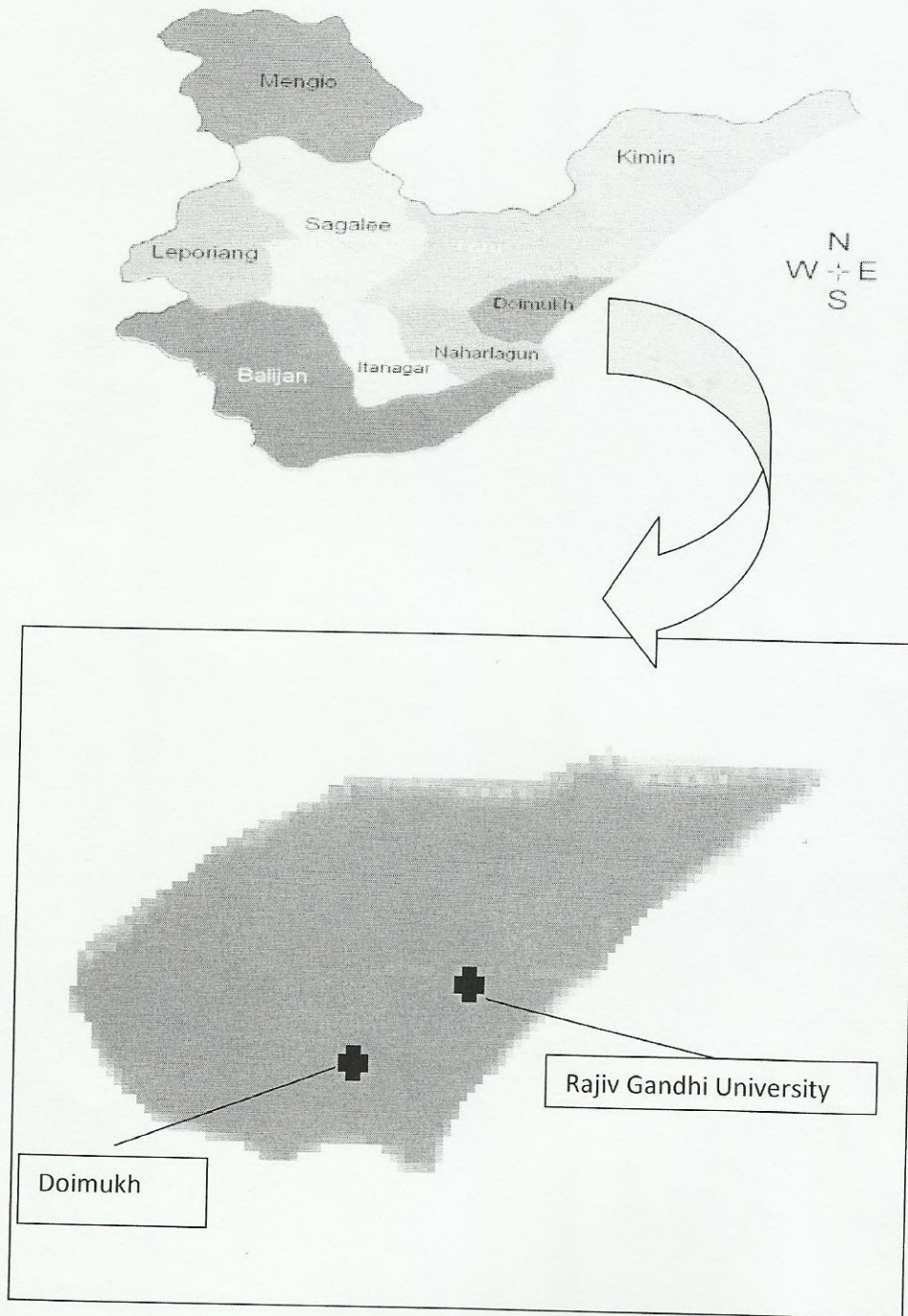
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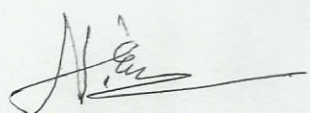

Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist. Papum Pare (A.P.)

Sarpanch

Gram Panchayat

Certified Location Map of Rono Hills, Doimukh




Sh. Nabam Epo, H/GB
Doimukh/Gumto Circle
Dist., Papum Pare (A.P.)

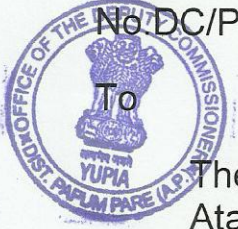


GOVERNMENT OF ARUNACHAL PRADESH
OFFICE OF THE DEPUTY COMMISSIONER
PAPUM PARE DISTRICT, YUPIA.

DC

No DC/PP/Sch/PC/122/2019

Dated Yupia the 26th September, 2019.



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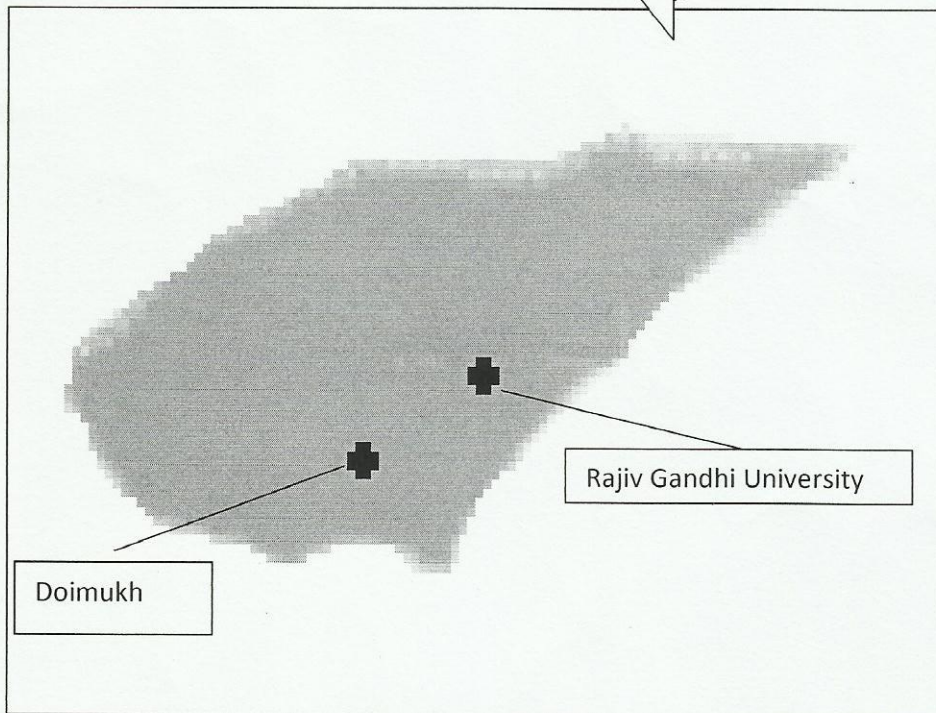
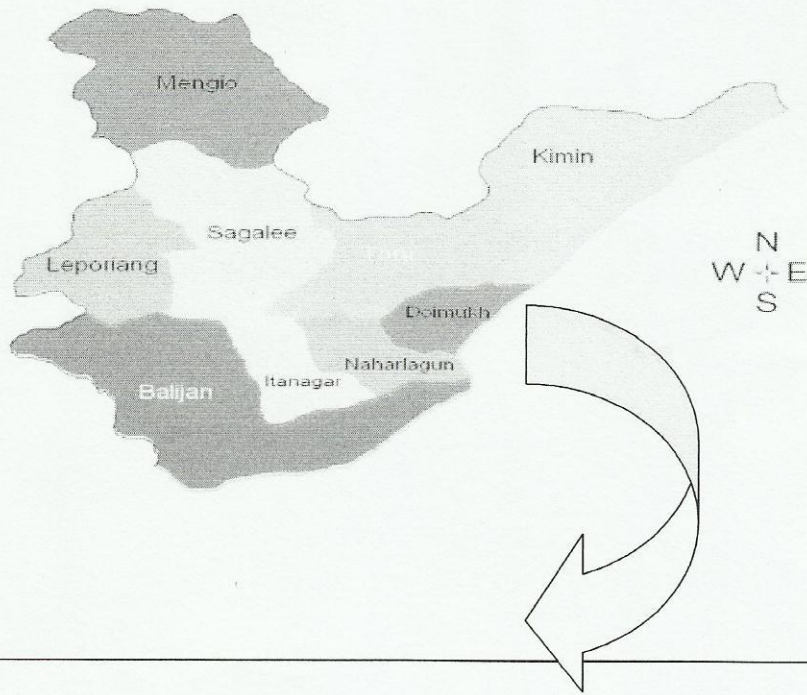
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Yupia, (A. P.)

Certified Location Map of Rono Hills, Doimukh




Deputy Commissioner
Papum Pare District
Yupia, (A. P.)

Goals and Deliverables

S No.	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Impact
1	Total Events	27	27	31	36	36	157	Reach, Awareness, Ease of access shall enhance
1a	Outreach Events including number of events organised for community to promote their involvement in entrepreneurship and innovation	6	6	8	8	8	36	
1b	Ideathons on local issues on addressing local issues / needs of the community.	4	4	6	6	6	26	
1c	Fund raising Events	10	10	10	15	15	60	
1d	IP Awareness and Promotion Events	2	2	2	2	2	10	
1e	Capacity Building Programs	5	5	5	5	5	25	
2a	No. of Ideas / start-ups / Innovators to be supported physically	4	4	4	6	6	24	Stimulating Idea Generation Exercises
2b	No. of Ideas / start-ups / Innovators to be supported virtually	2	2	2	3	3	12	Stimulating Idea Generation Exercises
3A	No. of Ideas / start-ups / Innovators to be graduate / exit after 1 year : Physical	12	12	18	18	20	80	Start-ups / Innovators
3B	No. of Ideas / start-ups / Innovators to be graduate / exit after 1 year : Virtual	2	2	2	2	2	10	Start-ups / Innovators
4a	Specific number of women / economically weaker section led start-ups to be supported as mentioned in 2A and 2B	4	4	6	6	6	26	Inclusive Growth, Large Scale Commercialisations, Employment
4b	Specific Number of new products/technologies/innovations to be commercialized / deployed as mentioned in 3A&3B	2	2	2	3	3	12	New Product Development, Large Scale Commercialisations
5	Number of mentor engagements to support aspiring innovators, startups, ideas as mentioned in 2A & 2B	8	8	10	12	14	52	Quality Inputs
6	Number of Corporate partners / Collaborations	8	8	10	10	10	46	Enhances marketability
7	Number of Academic partnerships	8	8	10	10	10	46	High Quality Input
8	Amount of seed funding to be leveraged (Value in INR 0.5 Lakh)	12	6	6	6	6	36	Initial Motivation to the budding Entrepreneurs
9	Prospects of IPs generation in areas like, New domestication for the wild ornamental fish, New WINE Composition from Fruit Juice, Sapling propagation for Orchids.							

Economic media development for mushrooms

* Description: For this purpose, graduate/exit will be counted as a start-up that has received external venture funding, got acquired by a larger existing company, or found a financially sustainable business model. In case of an individual or a group of innovator(s), graduate/exit will be counted if the prototype has been developed and has further been supported by an incubation centre.

Note: The hard copies are to signed by HoD / VC / Principal and stamped with seal of institution

Total AIM Grant-in-Aid requested : Rs. 250 Lakh													
Total Contribution from the Funding Partner and Other Sources (FP & OS*) : Rs. 250 Lakh													
S.No	Items **	Amount (Rs. Lakhs)											
		Year 1		Year 2		Year 3		Year 4		Year 5		Total	
		AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS	AIM Grant	FP & OS
A. Item-wise Capital Expenditure													
1	Computers, Laptops with licensed software												
2	Office equipment (if any)	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60
3	Makerspace / Fab lab	7.50	7.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	27.50	27.50
4	Sector(s) specific / Area of focus related equipment (if any)	4.00	0.00	2.00	3.00	2.00	3.00	2.00	3.00	1.50	3.50	11.50	12.50
5	Furnishing of space for the ACIC (if any)	1.00	1.00	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	3.40	3.40
6	Back up Power Supply	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
7	Cold Storage & Warehouse	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Total A		15.10	10.10	7.60	8.60	7.60	8.60	7.60	8.60	7.10	9.10	45.00	45.00
B. Operating / Recurring Expenditure													
1	Workforce	18.20	9.80	13.20	4.80	13.20	4.80	13.20	4.80	13.20	4.80	71.00	29.00
1.1	CEO / C I Charge	8.40	0.00	8.40	0.00	8.40	0.00	8.40	0.00	8.40	0.00	42.00	0.00
1.2	Young Professional	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	6.00	6.00
1.3	Lab Instructor / TA	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	4.50	4.50
1.4	Assistant / PA	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	4.50	4.50
1.5	Over Time Allowance / Apportionment from RGU	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00
1.6	Faculty (Session wise)	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	3.00	3.00
1.7	Security Personnel	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
1.8	MTS / Lab Attendant (2)	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	6.00	6.00
2	Events	31.00	37.00	18.00	26.00	18.00	26.00	18.00	26.00	18.00	26.00	103.00	141.00
2.1	Ideathons	10.00	10.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	34.00	34.00
2.2	Workshops & Seminars	10.00	10.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	34.00	34.00
2.3	Capacity Building Programs	2.00	10.00	0.00	8.00	0.00	8.00	0.00	8.00	0.00	8.00	2.00	42.00
2.4	Outreach Events (Add more rows as required)	9.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	33.00	31.00
3	Support Services to Startups / Innovators (e.g. technology, IPR, legal, accounting, marketing, etc.)	5.20	5.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	18.00	18.00
4	Domestic Travel	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	5.00
5	Utility and Maintenance	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	6.00
6	Miscellaneous Expenses, if any	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	6.00	6.00
7	(Add more rows as required)												
Total B		58.60	56.20	36.60	37.20	36.60	37.20	36.60	37.20	36.60	37.20	205.00	205.00

18%

20%

56%

6%

	Total Projected Cost (A+B)	73.70	66.30	44.20	45.80	44.20	45.80	44.20	45.80	43.70	46.30	250.00	250.00
	Yearly Project cost		140.00		90.00		90.00		90.00		90.00		500.00
C.	Expenditure (Excluded from A and B as per the scope of AIM Grant-in Aid)												
1	Land/Building Rental (if any)		0.00		0.00		0.00		0.00		0.00		0.00
2	Seed Funding to startups		0.00		0.00		0.00		0.00		0.00		0.00
3	(Add more rows as required)												
	Total C		0.00		0.00		0.00		0.00		0.00		0.00
D.	Project Grants and Contributions												
1	AIM Grant-in Aid		97.00		52.00		43.00		33.00		25.00		250.00
2	Contribution from funding partner & other sources (FP & OS)		30.00		16.00		16.00		19.00		20.00		101.00
3	Contribution from Applicant (Host Institute / Promoter)		85.00		14.00		16.00		17.00		17.00		149.00
4	Contribution from other collaborators / Partners												
5	Seed Funding												
	Total D		212.00		82.00		75.00		69.00		62.00		500.00
E.													
1	Revenue Stream 1		7.00		7.00		8.00		9.00		9.00		40.00
2	Revenue Stream 2		7.00		7.00		8.00		9.00		9.00		40.00
3	Revenue Stream 3		7.00		7.00		8.00		9.00		9.00		40.00
4	Revenue Stream 4		7.00		7.00		8.00		9.00		9.00		40.00
5	Technology Licencing		5.00		5.00		5.00		5.00		5.00		25.00
6	Training & Development etc.		15.00		12.00		13.00		13.00		14.00		67.00
7	Consultancy Services		15.00		12.00		13.00		13.00		14.00		67.00
8	Resource Sharing & Mobilisation for other Value added Services (NTA etc.)		15.00		12.00		13.00		13.00		14.00		67.00
	Total E		78.00		69.00		76.00		80.00		83.00		386.00
	Total D+E		290.00		151.00		151.00		149.00		145.00		886.00
F.	Projected Surplus/Deficit, if any =(E)-(B)		-36.80		-4.80		2.20		6.20		9.20		-24.00
	Note: This is not an exhaustive list and can be extended as per suitability.												

Note: The hard copies are to signed