

## Irula Tribe, Ecology and Business Innovation – A Case Study

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### Introduction

Indian business environment is facing rigorous challenges and fostering drastic changes under the new economic regime. The implication of economic reforms has altered the basic network of the economy and there is a persistent transformation in the business culture of the country. As an emerging market for the global business players, India is growing very fast. Currently, the markets in India are witnessing more and more alliances, joint ventures and networks. Irrespective of the size and scale of operations of the firms, it becomes inevitable for them to revamp and re-orient the business policies and practices in order to grow to be globally competitive. Competence, efficiency and uniqueness are the contemporary business mantras. There is an immense need for proper transformation of a value proposition (value chain) into a business proposal in order to attain competitive advantage. It must be done in such a way to suit the current needs and requirements of the markets by considering the availability of resources. The firms, which are able to do this process, will attain competitive advantage and here Innovation holds the key.

In this new world, value creation through profitable growth can come only from innovation (Prahalad and Ramaswamy, 2003). It is now widely recognized that innovation is the main driver of industrial growth as well as a major cause of social and environmental disruption (Hall and Vredenburg, 2003). Innovation has emerged as a key weapon to take on the challenges of information economy. Companies must learn that producing standard products using standard methods alone will not sustain competitive advantage. They must be able to provide customized goods/services of high quality at low-cost, which is possible only when their value chain comprehends the importance of innovation.<sup>1</sup> Therefore any project or business those are able to bridge the distance between the “Value chain and value proposal” is set to enjoy the competitive advantage and in turn becomes globally competitive.

The Venom Extraction Project of ISCICS – Strategic fusion between the Firm and Environment  
The venom extraction project of the “Irulas Snake Catchers Industrial Cooperative Society Limited (ISCICS)” is a rapidly growing innovative endeavor by the members of a south Indian tribe called “*Irulas*” which was on the verge of economic blow have turned their unique snake catching skills into a worthwhile business. The ISCICS is the largest producer of snake venom in India with an annual turnover of Rs.87.77 lakh. The Irulas, “*people from dark*” are now the only suppliers of snake venom to laboratories across the country, which make use of venom for producing the life saving anti-venom serum (Antivenin).

The value chain of the project is a “*unique interface between man and snakes*” as the snakes are being released back in to the ecosystem once the venom was extracted. It is the fusion between the firm and environment that perfectly balance the Environment (Ecological, Legal and Business), Tribal Skills and Lucrative business. The project is in the pathway of rehabilitating 345 Irula families, which are its members.

### Profile of the ISCICS

The tribal population suffers from economic and social backwardness. According to the 1991 census, tribal population (87.8 million) formed 8.06 per cent of the total population of India. In spite of constitutional provisions, integrating the tribals into the mainstream remains a tough task.<sup>2</sup> The Irulas are the Dravidian inhabitants and one among the thirty-six sub-tribal communities in Tamilnadu that holds the population about 1.17 lakh. The 1992 population survey

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reveals that there are about 5.74 lakh were tribes out of the total population of 558 lakh in the state.<sup>3</sup> They are a small group of indigenous forest-dwelling people who have a livelihood for generations by catching and skinning snakes. Their expertise in hunting and catching deadly snakes is locally legendary. The tribe is found in the states of Tamilnadu, Andra Pradesh and Karnataka, but the majority of them live just south of Chennai.

They were sole dependent of snake catching and skinning. They sold the skins to the foreign buyers through the local merchants for fashion accessories. The snake skin ended up as fancy purses, vanity bags, belts and shoes, but the Irulas's socio-economic condition was pathetic. For at least three generations they were the main suppliers to the Indian snake skin industry. The middlemen have exploited these illiterate people by offering very low price. The value system of this community had been revolving with the livelihood pattern of snake catching. Due to the consequence of deforestation, many of wild animals and plants are being endangered. The Irulas, as they are forest dependents were forced to migrate from forests to village and towns to find food and shelter their life. Few section of this people has been engaged as laborers, servants and became slaves of upper class.

The export of snake skin from India was banned in 1976, under the Indian Wildlife (Protection) Act 1972, in view of the ecological role of snake as rodent predators. The economic basis of the Irulas was suddenly made illegal and punishable with a sentence. Over 20000 Irulas who were the main suppliers of snake skins to the industry were left destitute following the ban.

The future of Irulas was reappeared all the way through the legendary "Snake Man" Mr. Romulus Whitaker, an American herpetologist who has been more inspired by the Irulas. He took initiative to form a trust to bring into the light of real importance of snakes and eliminate their superstitious belief. Accordingly the "Chennai Snake Park Trust" came into existence in 2<sup>nd</sup> October 1972. Creating awareness among the public and documentation of the indigenous knowledge and skills of Irulas was made possible through this trust. But it was not able to adequately extent its helping hand for the upliftment of the socio-economic condition of the Irula community as the trust was just running through the entrance fee collection.

In 1978, Romulus Whitaker and Mrs. Revathi Mukherji, a social activist, along with the Irulas sought the help of the Department of Industries and Commerce to begin a self-employment project in order to promote the downtrodden and unemployed youth of their community. Thus was born the "Irulas Snake Catchers Industrial Cooperative Society Limited" and was registered on 19<sup>th</sup> December 1978 with 26 members. The main objectives of the society are, to improve the economic conditions of the Irulas, and to accord a dignity to their indigenous knowledge, which had been denied to them. The society has been established in a portion of the land rented by Mr. Romulus Whitaker's most popular Crocodile Bank, which is, located on the shores of the Bay of Bengal, on the way to "Mamallapuram," an UNESCO's heritage destination near Chennai.

The society has been registered as an industrial cooperative and it is functioning under the administrative control of Department of Industries and Commerce for which the Commissioner of Industries and Commerce is the Registrar. Generally the elected board of directors is managing the cooperatives, as the "Democratic Member Control" is one among the seven fundamental principles of cooperation. But in Tamilnadu for the last several years the government has superseded the elected board. In the place of the board of management, presently the "Special Officer" who is the Industrial Cooperative Officer (ICO) of the Kanceepuram district, appointed by the Registrar holds the power of administration. The secretary of the society is the "Manager" and he is a paid staff of the society.

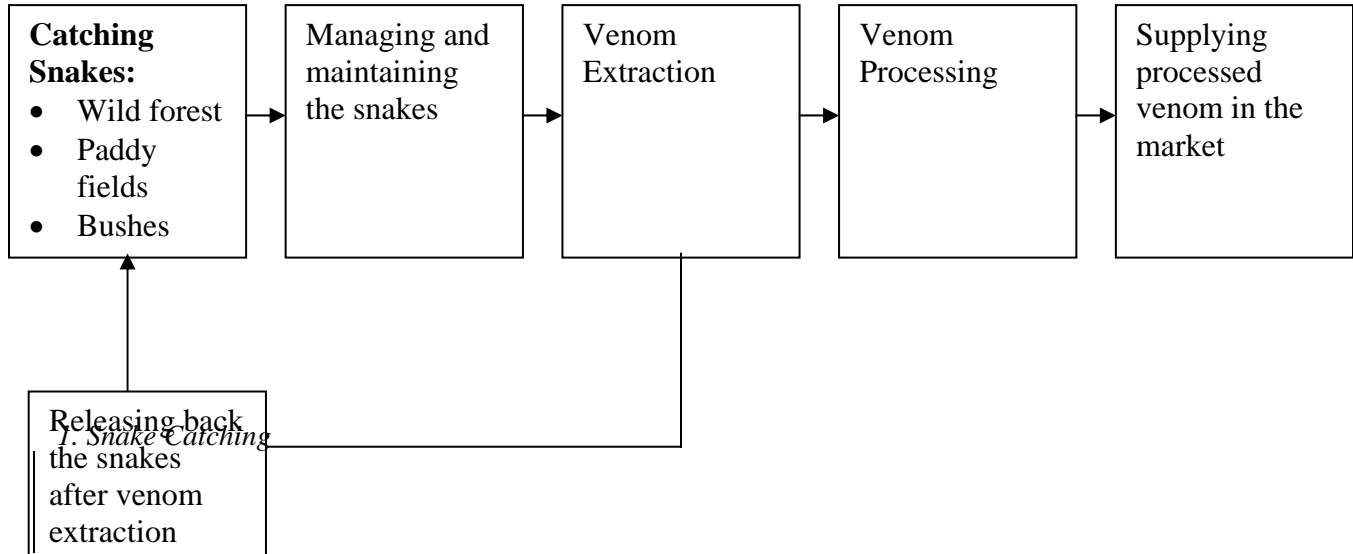
Since its inception and till 1984 Mr. Harry Andrews who was the Project manager has significantly contributed in developing the infrastructure and provided training to the Irulas on venom processing, handling and release of snakes. It was not a smooth sailing to Mr. Dravidamani, one of the architects of this grateful venture when he took charge as Technical Manager of the society in managing the project, which is working in the complex system of legal and bureaucratic mess. His commitment and devotion was made possible to bring the society to

this forefront and he is the back borne of the present functioning of the society. The crucial issue resolved was how to make the captivity of wildlife species as a commercial venture and to evolve a suitable system of capture, management and maintenance of snakes in order to balance the legal and ecological interlock, for which the State Forest Department needed to be convinced that the exploitation of snakes for extraction of venom would have minimal impact on their population. Since hunting and gathering, as well as swiddening have remained ways of life for many forest dependent communities in India, there is persistent cultural valuation of the forest: conservation and sustainable use are part of the norms governing the interface between the human and the non-human.<sup>4</sup> The age-old links between forests and the tribal people needs to be clearly recognized. The various Acts passed to protect forests should take into account the level of dependence the tribals have on forests. After all, the tribals make a living by selling their produce; and they usually do not exploit forest wealth for profit.<sup>5</sup>

#### Project Management – The Continuum of Tribal Skills and Know-how

The entire chain of the project is the continuum of indigenous skills fetched with the Irula tribe coupled with the know-how derived through their continuous experiments, which resulted in the exceedingly vibrant and competitive value proposal. The cycle of venom extraction and processing in the project is explained and illustrated as below (*Exhibit-1 and Exhibit 1(A)*):

*Exhibit -1: The Continuum of Venom Production Project*



Irulas have no formal methods of locating or catching snakes. Skilled at their art, Irulas can track a snake by following snitch signs on the ground, following tracks to burrows where the snakes may be hiding. Using nothing more than crowbar to dig the soil and bare hands, these tribal easily catch highly poisonous snakes like cobras, vipers and kraits. Each Irula hunts the area radiating from his village or campsite as far as the distance he can easily walk with his family in one day. Usually, the area is within a 10 km radius of their villages. They usually get one to three large snakes in a good day's hunt, which they sell to their society. The normal pattern is that the Irula

family hunts snakes intensively for a few days, which is enough to earn them sufficient money to meet the needs of the family for the following few weeks. Then they are likely to concentrate on hunting good animals like field rats, mongooses, monitor lizards and turtles and on gathering edible tubers, roots and medicinal plants. Until the need for money re-emerges, they rarely set out to hunt for snakes.

Presently, there are 250 members were licensed for catching snakes and it has been decided and granted on the basis of the orders received for the different kind of venom and available venom stock. It would be the joint decision by Chief Wildlife Warden, General Manager-District Industries Centre, Wildlife Warden and Special Officer. The number of snake trapped as on 31<sup>st</sup> March 2006 was figured at 3190. The number of snakes caught during this year (2006-07) has crossed 5000 so far and more than three times the 1500 serpents captured. This time the Irulas has trapped nearly 1100 Saw-scaled vipers in nine days in various parts of Tiruvallur and Kancheepuram districts of Tamilnadu.” says S. Dravidamani.<sup>6</sup>

## *2. Procurement of Snakes from members*

Venomous snakes are collected form the members and maintained by the society. For the supply of snakes the members have been paid with the rate, which mentioned below:

- 1) Indian Cobra (1.0 Meter length and above) Rs.1000/- (Rs.1200/- from 1<sup>st</sup> April, 2007 on wards)
  - 2) Russell Viper (1.0 Meter length and above) Rs.1000/- (Rs.1200/- from 1<sup>st</sup> April, 2007 on wards)
  - 3) Common Krait (90.0 CM length and above) Rs.400/-(Rs.500/- from 1<sup>st</sup> April, 2007 on wards)
  - 4) Saw-scaled Viper (9.0” to 12” length) Rs.100./- (Rs.150/- from 1<sup>st</sup> April, 2007 on wards)
- The snakes are purchased only form the date 15<sup>th</sup> to 31<sup>st</sup> of every month. The required number and spices of snake will be announced by the society 10<sup>th</sup> of every month.

## *3. Maintenance of Snakes*

The snakes procured from members are being kept in a snake pit measuring 60’LX 40’BX7’h. The length, weight, sex and caught places were identified and noted at the time of purchase. Every snake was marked with code numbers. The ventral scales are being used for marking for individual identification. Therefore every individual snake can be recorded properly. Then the snakes are allowed inside the mud pots. The mud pots are half filled with sand and a small cup of glucose water is placed in the pot. The top mouth of the pot was closed and tied with spongy cotton cloth. The animals are provided with water but not food. It may be noted that healthy snakes can survive very well without food for several weeks.

Everyday morning the snakes are taken out and pots were cleaned and again filled with fresh sand and glucose water is provided. If any snakes found sick it will be released back into the forest. To carryout above function on daily basis Irulas were appointed by the society. In the morning and evening the snake pit was sprayed with water to reduce the temperature during summer. During winter the snakes are managed by providing hay, casuarinas leaves in the snake pit. Moreover, 500wt electric bulb will be switched on during night hours. The society is protecting the snakes round the clock with the help of Irulas.

## *4. Venom Extraction*

The duration of the captivity of the snakes is limited to four weeks, and the venom would be extracted only once in a week. At the centre of the snake pit, a platform was raised on which a

table was placed. In the centre of the table a pillar is fixed. The top of the pillar is attached with a vine glass. The mouth of the vine glass is closed with smooth resin cloth. The snake was taken out from the mud pot carefully and laid on the table. Golf stick tied with rubber, which is used to press the neck of the snakes by hands without any stress or pain. Then the mouth of the snake is placed on the vine glass closed with resin cloth. The snake will bite the resin cloth and releases the venom. Then the snake is carefully removed and let in the mud pot. By doing so, it causes no injury or harm to snakes. Likewise, the venom is extracted from the entire captivity.

### *5. Releasing the Snakes Back into the Eco-system*

After the venom extraction the snakes are usually released in the presence of concern Forest Ranger in reserve forests that consist of degraded scrub forest and plantations of cashew nut and eucalyptus. Most of the forestland surrounding the agricultural land in the district where the Irulas operate is reserve forest. As such, it is completely protected and is a good repository of snake populations. It is important that the snakes are healthy and strong at the time of release. The captivity of snakes and extraction of venom by the society results in a mere 1% mortality of snakes during captivity. Thus, close to 100% of the targeted snake species are eventually released after the commercial product (venom) has been extracted. To detect and prevent premature recapture of snakes, all snakes (except saw-scaled vipers, which, at 30 cm, are too small) are coded by clipping the ventral scales. Records are kept for each of the three larger species. Clip codes last from six months to two years. According to Whitaker, The cooperative experiment has been very successful, and it's probably the only sustainable use of a wild animal species in India. At the cooperative, the snakes are weighed, measured, sexed and marked to prevent premature recapture. The Irula cooperative is the only venom production unit in India in which snakes are obtained locally and not killed.<sup>7</sup>

### *6. Venom Processing*

The extracted venom generally wouldn't be pure. There is a chance of mixing the saliva and other microorganism along with the venom. Therefore, it is centrifuged to separate the unwanted particles and microorganisms. The pre venom was preserved at -10°C. The purified liquid venom will be stored in Lyophilizer at -40°C and made freeze into solid ice venom. The ice venom will be kept in high vacuum pressure of the Lyophilizer to remove water content and it became as powder. The venom powder was stored in airtight bottles. The potency and effect of the venom is varying from snake to snake and time-to-time even if the venom collected from the same snake. As the venom extraction is continued for four weeks there will be four different potency of venom, which will be mixed together to equalize the quality and strength. The standard potency of venom will be stored in 1 gram or 5ml bottle at -10°C. The 99% humidity free venom powder will be stored in germ free bottles, as it won't be spoiled. The society is able to preserve the venom up to 12 years without any dilution in potency and strength.

### *7. Sale of Venom and Pricing Strategy*

The sole revenue of the society is derived from the sale of venom. The society is selling the venom to the various labs engaged in producing antivenin (*Exhibit-2*) by receiving the order accompanied by 100% advance payment along with permission letter from the Chief Wildlife Warden of the respective states in which the buyer institution is located. After careful examination of the purchase order the papers will be sent to the Chief Wildlife Warden of the Forest Department of the Tamilnadu State seeking approval for sale. After obtaining the clearance

from Chief Wildlife Warden, Chennai, the venom will be weighed in the presence of the concerned Forest Range Officer and getting signature from him in the bill and then the packed venom will be dispatched. A weekly snakes stock (number of snakes purchased by the society from the Irula members and the number of snakes released to the forest after extracting the venom) report will be submitted to the Range Officer and a monthly report will be submitted to the Chief Wildlife Warden, Chennai.

The society has evolved the strategy of pricing venom on the basis of venom component in a particular ratio in which institutions should buy. Accordingly, the ratio of 5:5:1:1 i.e., Cobra 5 grams: Russell's viper 5grams: Krait 1gram: Saw Scaled Viper 1gram is fixed. The institution can place order in the above ratio for which the following prices will be charged.

Type of Venom	Current Price	Price Applicable from 1st April 2007, onwards
1) Cobra Venom ( <i>Naja Naja</i> ) –	Rs.10000/- per gram	Rs.15000/- per gram
2) Common Krait Venom ( <i>Bungarus Caeruleus</i> )	Rs.30000/- per gram	Rs.45000/- per gram
3) Russell's Viper Venom ( <i>Vipera Russelli</i> )	Rs.10000/- per gram	Rs.15000/- per gram
4) Saw Scaled Viper Venom ( <i>Echis Carinatus</i> )	Rs.30000/- per gram	Rs.45000/- per gram

The price of Rs.80000/- per gram each applicable if the institution is willing to buy only Krait Venom and Saw Scaled Viper venom. The ratio has been fixed on the basis of the orders received for the different kind of venom, available venom stock and the license granted. Chief Wildlife Warden, General Manager-District Industries Centre, Wildlife Warden and Special Officer would make the process jointly.

In addition the society earns an average of Rs.400000/- per annum as a fee charged towards the service rendered by the members for catching the snakes on request from the premises of intuitions and others those who face problem of snakes. The snakes caught during this even will be safely released in the forests.

#### Role of ISCICS in Dissemination and Community Development

Thus, this tribal community for the benefit of the country is performing a very important role. In helping produce antivenin, the cooperative also provides a valuable social service. More than 30000 people die due to snakebites in India each year. There is a huge demand for venom, which is used to produce antivenin, the only known cure for the effects of snake venom.<sup>8</sup> The Irula snake venom project has make it possible for snake venom to be readily available for treatment of potentially fatal snake bites. The project has had a disseminative role as well. It stresses the facts that the great majority of snakes are harmless and that it is fairly simple to identify the four medically important species; "The Big Fours". The villagers often die if snakes bite them. But actually it's the fear not the poison that kills them" says *Mr.Rajendran*, the supervisor of the society. A good day's hunt, *Muthan* manages a minimum of three poisonous snakes. All of 50 years, he has been catching snakes and surviving snake bites, for as long as he can remember, like his forefathers did for more than 3000 years before him.<sup>9</sup> Part of the work of the Irula cooperative is to publicize the use of ant-venom serum. The society also pints out to visitors and to the farmers with whom the Irulas interact daily, that snakes are extremely valuable "friends of the farmer" due to all the destructive rodents they consume.

In spite of the economic and other benefits made to its members (*Exhibit-5*), the cooperative has also acted as a catalyst for community development. This has radically changed



the lives of *Rajammal* and her family. “From the cooperative we get money, and we also get a bonus for every snake that we catch. The bonus means we can buy better food, and it helps with the children’s education. If my son Kali wasn’t a full-time member of the cooperative, he would have to work for daily wages, by helping with the harvesting or by doing coolie (laboring) work. But by being a member of the society, he gets more money and more benefits.<sup>10</sup>” She said. Besides the Rs.150 that each poisonous snake fetches the tribes every day, almost all the profits go back to them. They get 30 per cent as incentive wages and 50 per cent of total earnings as bonus.<sup>11</sup>

#### Critical Success Factors

- ❑ The major issue resolved by the promoters was to ensure that the snakes that are captured are cared for well enough during captivity in such a way to enable them to reestablish themselves in the wild when they are release. Thus, care has been taken to ensure that the extractor is gentle and careful whilst extracting the venom, and the snakes are monitored and watched for any signs of deteriorating health during captivity. They are also released as soon as possible. The cooperative has also faced direct problems with the Tamilnadu Government as the royalty imposed on venom extracted from snakes. The society went to the High Court and succeeded in nullifying the royalty demanded by the government.
- ❑ The whole chain of venom production process is done through the know-how developed by the Irulas of their own through their continuous experiments based on the inputs transferred by the foreign herpetologists during their visits to the project. This becomes the USP of the society as many of the private people who have attempted but failed to ensure the quality and potency of venom as expected by the anti-venom laboratories.
- ❑ The indigenous skills, dedicated leadership, member’s participation and commitment, professional management, product viability, the work culture, vision, values and ethics of the society are the factors lead the project to march forward in bringing about the change in the socio economic development of the Irula tribes.

#### Problems and Prospects

It is the most important social center where the Irulas meet and share their concern. Overheads are low and demand is high. As a cooperative, many of its profits are re-invested, and what’s left is shared amongst the members. The Irula cooperative has its scope to expand, but it has been able to do so only very slowly due to the financial crunch, legal complexities and lack of scientific data based on which the proper decisions are to be made on different dimensions of the project. Lack of research is, in fact, a major hindrance to the expansion and further development of the society. Mr. Dravidamani hopes to expand his society’s activities to other parts of the state and increase venom production.

The cooperative also have potential to start collecting venom from other species of snakes as well as exporting venom. Although at present the Irula snake venom project probably has little impact on populations of the target species, assessing the snake resource and other factors is considered important for the project’s long-term sustainability. “Orders from around the world are refused since the export of venom was banned by the government of India. One American laboratory alone wants to buy a kilogram of cobra venom. Once the government allows us to export the venom we will definitely be able to give tribal people employment for the whole year. In foreign countries, they use venom not just for the production of anti-venom serum; they also use it for other medicinal preparations. It is one of the most important input resources to the pharmaceutical industry. One simple change in the law could bring the tribe even greater financial security. We have reached the first ever one crore business by the end of December

2006 and we have the order to the value of about four crore right now which requires the captivity of approximately 88200 snakes,” *Mr.Dravidamani* explained. The restrictions imposed by the forest department of the state is of arbitrary while licensing the maximum number of snake catchers as well as the number of snakes being caught by a snake catcher in a particular year. These regulations are needed on the basis of solid information about the species and habitats. In the absence of base line data on the impact of the project on the target species and the habitat, it is not feasible to revise the limits set for fear of upsetting the ecological balance. Since its *raison-d'être* is enabling the socio-economic development of the Irula community, the distinctiveness in the long run and the sustainability of the project is to be safeguarded. The analysis of the study posed the following questions:

- i. For the society it is a lucrative business. Is really worthwhile to its member as the per capita income earned by the members is much lower than the average income earned by the labors?
- ii. The entire value chain is a highly sensitive and risky process. What is the risk and reward relationship? Are the members properly rewarded and adequately covered with risk?
- iii. Will it sustainable in the long-run without broad based membership?
- iv. Whether the distinctiveness of the project will be maintained and managed?
- v. What would be the impact on the leadership /management of the society after the retirement of *Mr.Dravidamani* as he is the key person of the successful running of the project?

## Conclusion

The emancipation of tribal communities is no easy task, and it has socio-political and economic implications. The powerful feudal and vested economic interests had to be fought against and new modes of role relations had to be established to ensure tribal claims.<sup>12</sup> In the present situation, the link between forest and peoples is thus not just a contested ground within India, far less a theme that touches the lives of only the beneficiaries of forest access legislation. The key issues here are: the survival of a shared wealth of biological and cultural diversity; a necessary rethinking of the link between human beings and the rest of nature in terms of cultural values; and also, an issue of conceptualizing the relations between the global and the local. It is therefore necessary to interpret the local realities in anthropological terms to evolve the best and most locally compatible conservation practices that will protect and enhance biological and cultural diversity. The key lies in identifying those modes of indigenous discourse that, to use the words of Jeffrey McNeely (1993) “support diversity as a value”.<sup>13</sup> (Pp4209)

It is in this context, the Irula’s business model is a maiden attempt to find solution to the preservation of bio-diversity as well as the socio-economic well being of a tribal community. It is a viable business proposition evolved strategically in order to create competence to the project and build capacity to the community. The important need for capacity building is to equip and enhance the capabilities of people to solve their problems through organized efforts. The ultimate goal of capacity building is to achieve empowerment of marginalized and depressed groups of people to effectively manage their affairs, thereby reducing dependency on the government. Through capacity building it is possible to bring about organizational expertise in rural communities, particularly in areas related to leadership and decision-making and managerial capabilities.<sup>14</sup> It is very true in the case of ISCICS and through its inherent strength and core competencies the project has positioned itself as a potential business and deserves to become globally competitive in future.





Exhibit 1 (A)



**Fig 1: Snake catching**



**Fig 2: Maintenance of Snakes**



**Fig 3: Venom Extraction**



**Fig 4: Venom Processing**



**Fig 5: Powder venom – The Output**

### Exhibit-2: Anti-venom Serum

In helping produce antivenin, the cooperative also provides a valuable social service. More than 3000 people die due to snakebites in India each year. There is a huge demand for venom, which is used to produce antivenin, the only known cure for the effects of snake venom. Injecting venom into horses in sub-lethal doses produces antivenin. The horses develop antibodies to counter the venom and these are used to produce serum for use in human bitten by snakes. In India the following institutions are procuring the snake venom from the society for producing anti-venom serum:

1. The King Institute – Chennai (Tamilnadu)
2. Haffkine Institute – Pune (Maharashtra)
3. Bharat Serum – Mumbai (Maharashtra)
4. Serum Institute – Pune (Maharashtra)
5. Central Research Institute – Simla (Himachal Pradesh)
6. Vins Bio Products – Hyderabad (Andhrapradesh)
7. Biological Evan – Hyderabad (Andhrapradesh)

The following are the institutions procuring venom from the society for the purposes of other research:

- 1) All India Medical Sciences (AIMS) – New Delhi
- 2) Vital Mallaya Foundation – Bangalore
- 3) Mysore University – Mysore
- 4) Madras University – Chennai
- 5) IMCOPS – Chennai
- 6) Other Educational Institutes and Forensic Labs

### Exhibit-3: The Performance of ISCIS

Year	No. of Members	Share Capital	No. of Snakes Trapped	Venom Production. (Rs. '000)	Venom Sales (Rs. '000)	Payment made to Snake Catchers (Rs. '000)	Profit (Rs. '000)	Incentives paid (Rs. '000)	Bonus paid (Rs. '000)
1995-96	168	44.75	8348	1500.03	1308.00	230.46	1049.01	--	115.23
1996-97	189	79.10	11628	1749.65	1383.00	548.28	465.677	--	274.14
1997-98	197	111.45	11799	2051.71	1704.60	529.49	511.772	219.91	264.74
1998-99	210	146.00	11000	2141.18	2110.80	587.66	623.43	205.68	293.83
1999-00	212	172.30	7667	1188.36	3205.70	460.73	1176.06	161.25	230.36
2000-01	209	234.65	7500	1750.27	5845.50	1150.00	2882.47	575.00	575.00
2001-02	208	357.90	8750	2060.88	4158.85	2000.00	1482.94	1000.00	1000.0
2002-03	347	500.10	13637	1973.48	3572.75	2311.20	1050.56	--	693.36
2003-04	352	571.45	8850	2467.31	5636.50	1240.00	852.16	--	426.08
2004-05	346	668.70	3440	1752.97	4833.00	1779.20	1085.76	889.60	542.88
2005-06	345	1103.6	3190	3393.85	8777.00	1789.40	3306.18	--	--

(Source: Financial statements of ISCIS)

*Exhibit-4: Stock Position of ISCICS*

Year	Sale of Venom		Venom Stock	
	Grams	Value (Rs. '000)	Grams	Value (Rs. '000)
1995-96	543.00	1308.00	769.30	1376.51
1996-97	488.00	1383.00	1418.38	2002.98
1997-98	508.95	1704.60	1738.69	1724.93
1998-99	356.90	2110.80	2229.98	3040.79
1999-00	543.60	3205.70	2158.23	2779.37
2000-01	956.50	5845.50	1529.12	2641.62
2001-02	497.55	4158.85	1359.52	4802.03
2002-03	367.10	3572.75	1268.40	6748.14
2003-04	623.20	5636.50	970.03	5340.94
2004-05	295.90	4833.00	1038.70	6248.64
2005-06	715.70	8777.00	723.57	5507.14

*(Source: Financial statements of ISCIS)*

*Exhibit-5A: Benefits to the Member Community*

The society helps the member in obtaining license for catching the snakes. A license holder earn on an average Rs.4000/- per month. Moreover, the rats and frogs, which are the main food for snakes, are also procured by the society from the members at the rate of Rs.4/- per big rats, Rs.3/- per medium sized rats and Rs.2/- per frog. Presently the frogs are not procured because of the ban imposed by the forest department for capturing the frogs. The license holder members supplied with the following instrument at free of costs every year:

- Crew bar-1 No
- Knife - 1 No
- Cotton bag – 1 No
- Shoe – 1 Pair
- Umbrella – 1 No
- Wire Bag – 1 No
- Vessel – 1 No
- Anti-venom – 2 Bottles (Once in every 5 years)
- Uniform – 1 Pair

*Exhibit-5B: Other benefits to the Members*

- The society owns vehicles (Tempo Traveler and Trax Jeep) to procure the snakes from the residence of Irulas to the society. The members also get the following financial facilities from the society:
- 50% bonus every year
- 50% incentive
- 14% dividend (Maximum permissible rate by the Cooperative Societies Act)
- Rs.5000/- interest free housing loan
- Free insurance coverage (Janatha-LIC)
- If a member dies Rs.1000/- for funeral
- Rs.2000/- medical allowance every year
- Rs.1000/- educational loan for children
- If there is any accidental snake bite, the members get the entire treatment expenses
- If any death caused due to snakebite, Rs.100000/- will be provided to his dependents.

*Note: The appropriate facts and figures used in the case has been obtained from the “short notes” (information brochure) supplied by ISICS*

## References

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