



**Report On
Awareness Programme on Access and Benefit Sharing (ABS) *cum*
Consultation Meeting on *Yartsa Gunbu* (*Ophiocordyceps sinensis*)**

***Strengthening the Implementation of the Biological Diversity Act and Rules
with Focus on its Access and Benefit Sharing Provisions
(UNEP-GEF-MoEF&CC-ABS Project)***

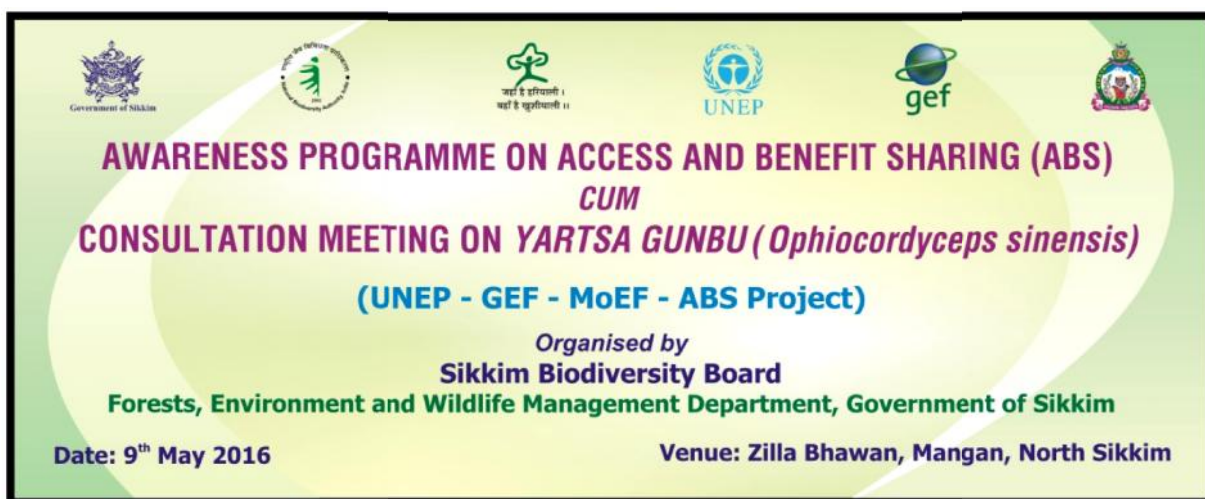
**09 May, 2016
Mangan, North Sikkim**



Organized By



**SIKKIM BIODIVERSITY BOARD
Forests, Environment and Wildlife Management Department
Government of Sikkim**



Sikkim Biodiversity Board organized “Awareness Programme on Access and Benefit Sharing (ABS) cum Consultation Meeting on *Yartsa Gunbu (Ophiocordyceps sinensis)*” in Mangan, North Sikkim on 09 May, 2016 under the UNEP-GEF-MoEF&CC-ABS Project “*Strengthening the implementation of the Biological Diversity Act and rules with focus on its access and benefit sharing provisions*” in coordination with the North Territorial Circle of the Forests, Environment and Wildlife Management Department (FEWMD), Government of Sikkim.

The programme was attended by approx. 100 participants including Local Panchayats, BMC members, JFMC and EDC members from Dzongu, Lachung and Lachen, *Dzumsa* members (Local Self Governing Body) of Lachung and Lachen. Hon’ble Deputy Speaker Shri Sonam Gyatso Lepcha and Hon’ble Minister for FEWMD Shri Tshering Wangdi Lepcha were the Chief Guest and Guest of Honour for the awareness programme. Other dignitaries present were Zilla Adhakshya & Zilla Up-adhakshya (North), Chairman Transport Department, SP North, SDM (Tsunthang, Dzongu & Mangan), BDO (Tsunthang, Dzongu) & ADC (North).

Officials from the FEWMD present were CF (WL), Director (KNP/KBR/HZP), DFO WL/North, Territorial /North, KNP/KBR), ACF Territorial/Headquarter & Tsunthang, KNP/North & West, WL/North, FCA.). The FEWMD field staffs (Range Officers, Block Officers and Forest Guards) from Wildlife, Territorial and KNP/KBR circle were also present during the programme. The Other SBB Officials present were Smt. Usha Lachungpa and Smt. Shewani Pradhan.

During the awareness programme, presentations were made on “*Yartsa Gunbu Commercialization: a learning lesson from Bhutan*” by Dr. Bharat Kumar Pradhan (Scientific

/ Technical Assistant) and “Access and Benefit Sharing Provisions in Biodiversity Act 2002 and *Yartsa Gunbu* (*Ophiocordyceps sinensis*)” by Dr. Ghanshyam Sharma (Programme Manager, TMI-India). The participants and the dignitaries were also distributed the different dissemination materials prepared/printed by Sikkim Biodiversity Board. The documentary on *Yartsa Gunbu* harvesting and sale from Nepal were also telecasted during the workshop.



Shri YP Gurung, IFS
(Member Secretary)
welcoming the Chief Guest, Guest of Honour, participants and the dignitaries said that Sikkim is very rich in biodiversity / bio-resource; nevertheless, people from outside the State are making huge benefit from our bio-

resources but we have not been able to take advantage from our rich biodiversity / bio-resource. Citing the example of *Yartsa Gunbu*, he said that it is highly priced in international market and potential bio-resource for access and benefit sharing and is available in three districts of Sikkim i.e., north, east and west, of which north district has highest availability. Its collection is very tough; people even lose their life due to harshness of the climate of the area where the species is present; however, the local collectors are not getting the real price for the resource; rather some middle men are making enormous profit. In order to avoid this, the State government felt a great need to streamline its commercialization process in Sikkim. With this view, the collection of *Yartsa Gunbu* was legalised in 2009 but due to lack of proper guidelines, the legalisation process could not be executed in our State. Hence, the Forest Department decided to send a joint team from Sikkim Biodiversity Board and the Forest Department to Nepal and Bhutan to study its trade mechanism. Accordingly the team went to Bhutan but the devastating earthquake in Nepal prohibited the team to visit the country, he added.

Member Secretary said that during the study tour, the team interacted with various departments dealing with the commercialization of *Yartsa Gunbu* in Bhutan. On the basis of which, the department has developed a guidelines “*Yartsa Gunbu* Harvesting and Auctioning

Guidelines 2016” for the benefit of the local people residing in high altitude areas. Hence, he urged the participants to be attentive to the lecture where the resource person Dr. Bharat Kumar Pradhan will be sharing the Bhutan experience on the *Yartsa Gunbu* trade and the guidelines developed by the department through PowerPoint presentations.

Mr. Gurung also highlighted in brief about how local community can be benefitted through access and benefit sharing mechanism. He further added that local community from Lachung, Lachen and Dzongu can also be benefitted through ABS because the high altitude areas falling under the jurisdiction of these areas are potential habitat for *Yartsa Gunbu*. He also mentioned about Seabuckthorn, another important bio-resource having ABS potential which is endemic to Lachung and Lachen in Sikkim; however, for ABS to happen there is a strong need to have Biodiversity Management Committee (BMC) in these areas, so he stressed that the local governing bodies should initiate the process of forming BMCs in their areas.

Shri Tseten Tashi Lepcha (Zilla Up-adhakshya, North) in his remark said that *Yartsa Gunbu* is very expensive bio-resource and we are fortunate that it is available in high altitude areas of Sikkim. But the problem is we do not know about its market potential and its



availability in Sikkim due to which the people from outside are coming to Sikkim, harvesting it and making huge income and we are not able to control it. Appreciating the effort of FEWMD, he said that, the department has come with the proposal to allow the high altitude residents of north Sikkim to harvest and sale *Yartsa Gunbu*; however, they have prepared some guidelines according to which collection permit will be issued to limited number of individuals per season which is very necessary because if the harvesting is not regulated then it may disappear from the area. He further mentioned that the harvesters will not have to worry about the market; the department will organize auction where they can openly sell their resource and get assured price. Therefore, everybody must cooperate with FEWMD and

follow the guidelines strictly which are prepared for the benefit of the people and the community. At the same time, we all should be vigilant to check the ongoing illegal harvesting of bio-resources from our area, he added.



Smt. Anguli Lepcha (Zilla Adhakshya, North) initiated her address by requesting all the participants to be very attentive because such programme is very important for everyone and is organized for their benefit. She said that north Sikkim is rich in biodiversity including

medicinal plants, beautiful rhododendrons, wild animals as well as the scenic beauty and the local community possess enormous traditional knowledge being remotely located in high Himalaya.

Mrs. Lepcha pointed out that north Sikkim especially Lachung, Lachen and Dzongu are potential habitat for *Yartsa Gunbu* as well as other high valued bio-resources but we are not being able benefit which is due to our ignorance and lack of awareness. She appreciated the effort of the Government of Sikkim to legalize the collection and sale of *Yartsa gunbu* (*Ophiocordyceps sinensis*) which has huge potential to improve the livelihood of the local communities of the area through access and benefit sharing. Therefore we all should take the advantage of the opportunity that is being provided to us by the department vis-à-vis we should also take care of its sustainability. It is being noticed that many people from outside are coming to Sikkim and illegally harvesting it and now it is high time that the local communities must take this matter seriously and cooperate with the department to check such illegal practices.

Sharing her experiences from Dzongu, she said that many foreigners come to Dzongu as researcher without intimating National Biodiversity Authority and Sikkim Biodiversity Board and stay there for many months extracting the traditional knowledge, etc. form the village elders and the local people were not aware of the fact what they do after that; however, the

effort of Sikkim Biodiversity Board in raising awareness on the Biological Diversity Act 2002, Access and Benefit Sharing, bio-piracy, etc. in Lower Dzongu some time back has benefitted the people of Dzongu. Now the local people have realized that they have become victim to bio-piracy and have lost many of their important bio-resources and associated traditional knowledge in the hand of pirates who comes to our areas as tourists, students, etc. Nevertheless, now the local communities have become much aware comparatively and have constituted Biodiversity Management Committee (BMC) who is actively working for the cause of conservation of our long preserved traditional knowledge.

She also mentioned in her address about the international value of Seabuckthorn and the different products being developed from it. Such important bio-resource is available only in Lachen and Lachung in north Sikkim and we are not able to understand its potential, she added. Citing the example of local cane varieties, she said that there used to be 20 - 25 local cane species in Dzongu, now we have very few species left. Similarly, talking about a particular local landrace of maize *kusung gadi* which was much better than currently available popcorn and was endemic to Hee Gyathang in Lower Dzongu but the variety is extinct now and this happened because of our ignorance and preference to the introduced varieties. Now it is high time that we all focus on conserving our traditional varieties of crops etc. and in order to conserve our valuable biodiversity and associated traditional knowledge, there is a need to constitute BMCs at every Gram Panchayat Unit who are empowered by the BD Act 2002 to conserve, regulate research and commercialization of the bio-resources and associated TK as well as illegal ongoing harvesting practices.

Zilla Adhakshya Mrs. Anguli Lepcha concluded her address by making an appeal to all the participants to follow the harvesting and auctioning guidelines developed by the FEWMD which will certainly benefit them in the longer run through access and benefit sharing mechanism.

Dr. Bharat Kumar Pradhan, through his PowerPoint presentation gave detailed information about *Yartsa Gunbu* to the participants as well as the dignitaries. He said that *Cordyceps* are parasitic fungi that mostly infect insects and there are about 400 species of *Cordyceps* distributed worldwide. Of all the species of *Cordyceps*, *Cordyceps sinensis* (accepted name: *Ophiocordyceps sinensis*) has very high demand in the international market. It grows between 3500 – 5000 m asl and infects Ghost moth (*Thitarodes* sp.). The species has a total life cycle of 5 – 6 years and the fungal infection rate is higher in 4 - 5 instar larva and the larva above 5



years of age are capable of fighting the fungal infection. He said that the medicinal properties of *Yartsa Gunbu* is still unclear; some studies indicates the species to be anti-carcinogenic (breast cancer, cervical cancer and blood cancer) due to the presence of Cordycepin which inhibits cell proliferation while other studies indicates, *Yartsa Gunbu* induces cancer. However, studies have shown that *Yartsa Gunbu* is rich in beta-galucans and polysaccharides, a source of

oxygen. Its consumption increases Adenosine Tri Phosphate (ATP, a source of energy supply to body) in the blood and improves the exercise performance. Traditionally, it is consumed as food supplement and not as medicine, he added. There is no research based evidence to prove *Yartsa Gunbu* to be stimulant, aphrodisiac, anti-ageing and effective in treating impotency and people should not fall for to see medicines that claim to be effective in treating these problems because such medicines may affect the vital organs of the body like kidney, etc.

He enlightened the participants about how the species came into limelight during 1993 after 4th World Championship in Athletics in Stauttgart, Germany when two Chinese athletes Wang Junxia and Qu Yunxia set world record in 10,000 m and 3,000 m long distance running. Their coach Ma Junren claimed it to be due to *Yartsa Gunbu*; nevertheless, he was found guilty of illegally doping his athletes later. But ever since, the market price of *Yartsa Gunbu* is increasing and has reached sky high, he added.

Since Sikkim is a potential habitat for *Yartsa Gunbu* and seeing the prospect of commercialization and access and benefit sharing (ABS) of *Yartsa Gunbu* and to provide sustainable livelihood options to the local people of high altitude areas, the Government of Sikkim legalised its harvesting and sale in 2009 and notified “*Cordyceps sinensis (Yartsa gunbu / Vegetative Caterpillar) Collection and Selling Rules 2009*”; nevertheless, it could not be implemented effectively due to lack of guidelines. Therefore, to give expression to and properly implement the said rule, a team of officials from Sikkim Biodiversity Board and FEWMD were sent to Bhutan to study the different mechanisms involved in

commercialization of *Yartsa Gunbu* (*Ophiocordyceps sinensis*) that is being followed up in Bhutan because it is the only Himalayan country which is commercializing *Yartsa Gunbu* in a well organized manner, he added.

Dr. Pradhan, through his presentation enlightened the participants that Royal Government of Bhutan legalised the commercial exploitation of *Yartsa gunbu* in 2004 even though the species was enlisted in Schedule I of the Forest and Nature Conservation Act 1995 to control its illegal collection and trade by the trespassers from the neighbouring countries. Since then, Bhutan has been successfully commercializing *Yartsa Gunbu* because they have developed guidelines for harvesting, marketing / auction as well as export certification involving several government agencies such as District administration, Ministry of Agriculture and Forests [Department of Forest and Park Services (DoFPS), Department of Agricultural and Marketing Cooperatives (DAMC) and Bhutan Agriculture and Food Regulatory Authority (BAFRA)], etc. These agencies have specific roles and responsibilities and are directly involved in controlling the trade of *Yartsa Gunbu* in Bhutan. For example, District administration is responsible for issuing of permits, etc. Similarly, DoFPS, DAMC and BAFRA is responsible for framing guidelines for harvesting, marketing / auction and export certification, respectively and to ensure that these guidelines are strictly implemented and followed. The offenders are liable to be punished under Forest and Nature Conservation Act 1995 and Rules 2006.

Dr. Pradhan briefed the participants about the existing guidelines and the steps being followed in commercialization of *Yartsa Gunbu* in Bhutan. As per the harvesting guidelines, the people residing in higher altitudes with no other source of income and whose lands are registered with block administration are only eligible for the harvesting of *Yartsa gunbu*. Children below 12 years, the government employee and the businessmen are not allowed to harvest; however, the representatives of physically challenged person are permitted to collect *Yartsa gundu* on his behalf provided he is the resident of high altitude area and is not below 12 years of age. The collection permit is issued to 03 people per household which is subject to verification by the block administration but before issuing the permit, awareness program on sustainable extraction method, garbage management, etc. is organised for them and after the harvesting is over, a cleanliness drive is organised. The Patrolling team is constantly present at the site to monitor the harvesting, inspect the collection area, ensure proper garbage management and check any illegal activities or intrusion of people from outside the jurisdiction area.

The collection of *Yartsa gunbu* is permitted from Reserve forests as well as National Parks and Sanctuaries; however, the collection period is restricted to July and the illegal harvesting is monitored, before and after the harvesting period, by the monitoring team consisting of forest field officials and member of the local community. According to the guidelines, collections are to be made only through hand picking and the collectors must ensure minimum damage to the habitat. Further, they also have to declare the number / quantity of *Yartsa Gunbu* collected every day to the forest officials / patrolling team at the campsite in the evening; however, there is no limit on the quantity of harvest. The collectors will have to return back to the designated campsite no matter how far they go for collection during the day. Once the harvesting and cleaning campaign is over, the collectors are issued a Certificate of Origin jointly by the concerned forests officers and the block administration.

As per the marketing / auction guidelines, it is mandatory for the harvesters and buyers to take part in the government organised auctions. The Royal Government of Bhutan has put clause that only the local citizens are allowed to take part in the auctioning of *Yartsa Gunbu*. If the collectors are not interested in taking part in auction; they are allowed to sell or export their resource only after payment of royalty and service charge, as fixed by the block administration. Similarly, the buyers will have to pay the royalty for the amount of *Yartsa Gunbu* bought to the concerned forest officers which is subject to 20% increment once in every two years.

The whole auction process is coordinated by the respective block administration with the support of the relevant government agencies (DoFPS, DAMC, BARFA) and committees (auction committee, visual sorting committee). The role of the auction committee is to organize the auction and to see that auction process goes smoothly and the visual sorting committee is responsible for grading of *Yartsa gunbu* on the basis of appearance and size. Once the auction process is over, block administration prepares the business transaction document necessary for the inner movement and export of *Yartsa gunbu*. On the basis of these documents, DoFPS issues inner movement permit and BAFRA issues the Export Certificate to the *Licensed Cordyceps Exporter* (LCE) and the *High Altitude Resident Collectors* (HAR) for direct export. However, the sale of *Yartsa gunbu* is also allowed in domestic market through registered outlets.

The high altitude residents in Bhutan are making substantial income from *Yartsa Gunbu* sale by practicing sustainable harvesting method and by strictly following all the guidelines

notified by the Royal Government. At the same time, the resources are being conserved through participatory approach and the revenue generated is being utilized for the community development and conservation programmes.

Dr. Pradhan mentioned that on the basis of the study tour, the FEWMD has now notified **“Yartsa Gunbu Harvesting and Auctioning Guidelines 2016”**. He said to the participants that the Government of Sikkim is fair enough to allow the commercial exploitation of *Yartsa Gunbu* in Sikkim by notifying Rules and guidelines on *Yartsa Gunbu* collection and sale. If the guidelines are strictly followed, both the local communities and the State will mutually benefit from the commercialization of *Yartsa Gunbu* through access and benefit sharing (ABS) thus minimizing the wastage of the resources that has potential to improve the socio-economic status of the people and generate revenue for the State.

Dr. Pradhan also gave the overview of *Yartsa Gunbu* commercialization from Nepal and gave examples on how the people in China, Tibet, Nepal and Bhutan are generating income from *Yartsa Gunbu* through local entrepreneurship and tourism by organizing *Cordyceps* expedition, which can be replicated in Sikkim too. This will not only ensure sustainability of the resources but will also assure sustainable livelihood to the local people of the high altitude areas in Sikkim.

Dr. Ghanshyam Sharma initiated his presentation with the Biological Diversity Act 2002 and the need for its enactment in India. He said that the BD Act 2002 is enacted to: protect biodiversity and the sovereign right of the country over its biological resources, stop bio-piracy, regulate access and use of biodiversity, ensure sustainable utilization and equitable benefit sharing, provide legal recognition and support to the biodiversity associated traditional knowledge. He also enlightened the participants with the institutional structure of the different implementing agencies of the BD Act 2002.

He further highlighted that foreign researchers are conducting without taking the consent of



the National Biodiversity Authority which is strictly against the provision of BD Act 2002, according to which, it is must for them to obtain approval of NBA. Further, lot of bio-piracy is going on in the state and now everybody should work together to stop such practices, he added.

Dr. Sharma enlightened the participant about the Access and Benefit Sharing guidelines 2014, Protection of Plant Varieties and Farmer's Rights Act 2001 and Nagoya Protocol and the key components of ABS like PIC, MAT, MTA, etc. and the different processes involved in ABS mechanism. He highlighted the key issues causing hindrances in signing ABS agreement in the Himalayan region like difficulty in understanding ownership over biological resources, gaining benefits from traditional knowledge, institutional mechanism (modern vs. traditional), disclosure of source of origin, high level uncertainty surrounding the value of biological resources, poor negotiation skills, etc.

In his presentation, Dr. Sharma cited various examples from India regarding how BMCs in other states have benefitted through ABS; however, he pointed out that in order to get the real price for the biological resources, there is a strong need to do the economic valuation of the bio-resources and the provider of bio-resource or the local community should learn the negotiation skills to convince the buyers for maximum willingness to pay for the bio-resources. He stressed that even though the bio-resources are State's property but the local communities are given privilege to retain access right; however, it may have multiple use and diverse product manufacturing potential and revenue generation, therefore the state government can fix the tax or royalty on the bio-resource if somebody wants to commercialize it. At the same time, the local biodiversity management community (BMC), as a conservator or manager of bio-resource and associated traditional knowledge, can levy fee on the bio-resource available under their jurisdiction to the traders or commercial companies.

Dr. Sharma also talked about how people in Nepal are documenting the traditional knowledge associated with biodiversity / bio-resources and there is a strong need in Sikkim to document the same especially in areas like Lachen, Lachung and Dzongu which are the hotspots of traditional knowledge for being located in extremely remote place away from all the modern facilities; however, we are losing our long conserved traditional knowledge with the passing away of the TK holders and it is a great loss for us and we need to take measures by documenting it. He said to the participants that because of our ignorance, the foreign researchers are making the most use of our valuable TK by documenting it and taking to their

respective countries and claiming ownership over the same. He cited various examples of bio-piracy incident in Sikkim in the past and how the pirates were nabbed by the local people and the forest field officials. He requested the participants to take strict measures if they find foreigners doing sort of research / survey in their area. This will certainly put brake to the bio-piracy of resources and associated TK, to some extent.

Discussing about the potential of *Yartsa Gunbu* to provide sustainable livelihood to the local communities as well as earn revenue for the state, he appealed the participants to strictly follow the *Yartsa Gunbu* Harvesting and Auctioning Guidelines 2016 notified by the FEWMD which will definitely offer them financial freedom in the longer run likewise in Bhutan and Nepal.

Discussion Session

Mr. Paljor Lachenpa (Pipon, Lachen) conveyed his gratefulness on behalf of Lachen *Dzumsa* to the Sikkim Government, Hon'ble Minister, Sikkim Biodiversity Board and the Department for legalising the harvesting of *Yartsa Gunbu*. He admitted that there had been its illegal collection in the past, but it is not done by the local people rather the non-locals including the GREF labourers, Army porters, etc. are mostly involved because the harvesting period falls during the peak tourist season and it becomes difficult for the *Dzumsa* to monitor the activity of the non-locals as they are busy dealing with the tourists. He further added that the *Yartsa Gunbu* habitat is accessible from other areas like Chungthang, Tarum, Rabom, etc., and it is not possible for the Lachen *Dzumsa* to control or stop those poachers. He mentioned that there have been rumours about the involvement of Lachen people in laying traps for the wild animals which is not true because the Lachen *Dzumsa* have the provision of imposing fine of Rs. 50,000/- to the offenders if caught and handing over them to the FEWMD.

He mentioned that the people of Lachen are very much interested in harvesting of *Yartsa Gunbu*. With this view, the *Dzumsa* in collaboration with the WWF-Sikkim have already developed brochures on its sustainable harvesting techniques. Further, they have also developed guidelines on do's and don'ts and have initiated raising awareness to ensure minimum damage to the forest and the wildlife by the harvesters while going for its collection.

Expressing the happiness on the initiative of the FEWMD, he said that this will certainly put an end to the illegal collection of *Yartsa Gunbu* and will bring prosperity to Lachen and Lachung. At the same time he said that *Yartsa Gunbu* has wide distribution in Lachen and Lachung valley and the time period of 20 days, as mentioned in the guidelines, will be too less for them; hence, he requested the department that they should be allowed to harvest it at least for the two months from last week of May to the last week of July. According to him, people are not much aware about the drying techniques and the resource may get damaged due to improper storage or drying, hence Mr. Paljor made requisition of drying machine or training on drying techniques, to the department.

Dupden Lepcha (EDC President, Dzongu), during the discussion brought the issue of non-local people involved in illegal activities such as harvesting of *Yartsa Gunbu*, *Junipers*, medicinal plants especially *Paris polyphylla*, laying of traps for the wildlife, etc. He said that many non-local people from Nepal, etc., come to Dzongu as labourers and work there for some time. During their stay in Dzongu, they take note of the locations, phenology, etc. of all the important bio-resources in the area and then involve in its illegal collections. In order to collect these resources, those people camp in the high altitude areas for 4 – 5 months causing huge damage to the vegetation especially rhododendrons, improper garbage disposal, etc. in the area. Therefore, he requested the concerned authorities to look into the matter seriously.

Mr. Lepcha revealed that the 03 eco-development committees from Bey, Sakyong and Pentong have been very active in monitoring the illegal activities since 2015. They camped at Bey in upper Dzongu, the main entrance to Tholung – Kishong trail in KNP, from May to August end and kept record of all the visitors last year. He also said that the EDCs are collecting a fee of Rs. 200/- from the group of visitors for garbage management. This way they have been able to check the illegal activities in the area. He disclosed about certain joint decisions taken by the three EDCs for monitoring illegal activities, proper garbage disposal and entry of unauthorised people to the high altitude areas in Dzongu, such as

1. Organize cleanliness drive along Tholung – Kishong trail;
2. Ban carrying of plastics, cigarettes, liquors, narcotics, etc. to the high altitude areas;
3. Ban the collection of *Junipers*, which has commercial value, being used as incense;
4. Not to allow students below the age of 18 to go for trekking in the area;
5. Not to allow people to venture into the high altitude areas without permit from the concerned authorities;

6. Not to allow groups / people to go to high altitude area if they are trekking without carrying stoves and sufficient kerosene;
7. Permanently deploy someone at the check post at Bey on daily wages basis to keep track of the visitors.

At the end, Mr. Lepcha thanked the Sikkim Biodiversity Board for organizing such awareness programme on access and benefit sharing (ABS) cum consultation meeting and said that the legalisation of *Yartsa Gunbu* will provide an option for income generation to the unemployed youth and many other people vis-à-vis motivate them to conserve the local bio-resources and the biodiversity.

During the discussion, several other issues came to light such as

1. Involvement of ITBP in the collection of *Yartsa Gunbu*
2. Seizure of the bio-resource collected by the local people by the ITBP personal
3. Illegal harvesting of *Paris polyphylla*, one of the highly demanded medicinal plant bio-resource, etc.

Responding to Mr. Paljor, the Member Secretary of the Board Mr. YP Gurung said that the drying of *Yartsa Gunbu* is very easy and simple and do not require massive drying units. It has to be air dried after proper cleaning or removing the soil particles using soft tooth brush; for proper drying, the resource can be spread in the newspaper on the table or they can wrap it in the tissue paper; however, direct contact with the ground should be avoided because the newspaper may absorb moisture from the ground that will lead to decaying of the *Yartsa Gunbu*. He added that, the department has developed guidelines on its collection and sale for which the department shall organise awareness programme on the subject in their respective areas. Regarding the collection time and period, Mr. Gurung said that for ensuring the sustainability of the resources, it is essential to issue limited number of collection permit per season and restrict collection period. Hence, the department will issue permit only to those recommended by the *Dzumsa*. Further, he added that for giving effect to access and benefit sharing of the Biological Diversity Act 2002, there is an urgent need to have Biodiversity Management Committee (BMC) in the area, so he requested the *Dzumsa* to facilitate the formation of BMC in Lachen and Lachung at the earliest.

Responding to the issues raised by Mr. Dupden Lepcha, Member Secretary of the Sikkim Biodiversity Board said that in order to check the issue of non locals getting involved in

illegal activities, there is a need of sensitization of people at all level, and the coordination between forest department, police department, army and the local people. He further added that the department alone cannot handle the situation; it needs the support of the local people; we need to patrol the area on regular basis by forming joint patrolling team consisting of forest field officers, police and EDC/JFMC/Dzumsa/BMC members. He urged the local people to come forward and bring the matter to the local police or the concerned forest officers, if they come to know about such ongoing illegal activities in the area.

CC Lachungpa (ACF Territorial, Tsunthang), responding to the issue of non-locals engaged in the collection of *Yartsa Gunbu* said that it is known to everyone that the non-locals especially GREF labourers, construction labourers, army porters, and even the army people are harvesting the *Yartsa Gunbu* and other important bio-resources illegally but the department is not able to take action because of limited manpower and other constraints; however, the *Dzumsa*, who has control over and knowledge about the area can take action or help bring those people to the police. This way illegal harvesting of *Yartsa Gunbu* can be controlled and the local can be benefitted in the longer run through ABS.

Adding to the point, Member Secretary, SBB assured the participants that the Forest Department will soon call a high level meeting with the Army, ITBP and GREF in regard to the engagement of their field officers / labourers / porters in the collection of *Yartsa gunbu*.

Address By

Shri Tshering Wangdi Lepcha, Hon'ble Minister, FEWMD, appreciating the effort of the FEWMD and SBB in bringing out such an important guideline for the benefit of the local people, suggested the team to organize such workshop in Lachen, Lachung and Dzongu separately because



each individual of the concerned area who is involved in the collection of *Ophiocordyceps sinensis* should know about the guidelines and the ABS mechanism. Further, he suggested

conducting the lecture in local language as maximum people of the area are not well versed with Nepali. Talking about the *Yartsa Gunbu*, highly ABS potential bio-resource, he said that the harvesting of the same was illegal till now but the Government has made its collection legal in the state nevertheless; they will have to abide by the guidelines and ensure their collection to be sold in the auction organized by the FEWMD, which will highly benefit them. He pointed out that unless the local people become aware and alert, the outsider will continue exploiting our resources; hence, it is high time that we become vigilant and guard our resources and take benefit from it. At the end, Hon'ble Minister requested the participants to try to understand the guidelines and the ABS mechanism and to clear their doubts with the resource person as much as possible and also to coordinate SBB in constituting BMC to give effect to ABS and the BD Act 2002.



Shri Sonam Gyatsho Lepcha, Hon'ble Deputy Speaker, Sikkim Legislative Assembly appreciated the effort of SBB in organizing such historic and eye opening consultation meeting regarding the *Yartsa Gunbu* and the ABS which is much debated topic till

now. He brought to the knowledge of all the participants that the Government have been trying to legalise the collection of *Yartsa Gunbu* since 2000 and came out with notification in the year 2002; however, the absence of guidelines was the major challenge in implementing the notification of 2002. Nonetheless, the guidelines of 2016 will help implementing the notification and the local people will be able to take full benefit from its collection. At the same time, he made it clear that the local people should ensure that the collection is made in a sustainable manner.

He also insisted that similar workshop regarding the guidelines and the ABS should be organized area wise in local regional language. He appealed to the local Panchayats, Dzumsa members, EDC/JFMC members to ensure the participation of maximum number of villagers in the workshop which will be organized area wise. He also said that the local bodies should

be well versed with the *Yartsa Gunbu* Auctioning Guidelines, BD Act 2002, ABD guidelines 2014 and every other policies, this will help effective implementation of the same. At the end, reminding to the earlier request made to the then Member Secretary during the meeting with Public representatives on November 2014 to constitute BMC in Dzongu, he again requested the present Member Secretary to take it up at priority and constitute BMC in all the GPUs of Dzongu at the earliest.

Concluding Session

The One Day Awareness Programme on Access and Benefit Sharing (ABS) cum Consultation Meeting on *Yartsa Gunbu* (*Ophiocordyceps sinensis*) ended with Vote of Thanks by Sanula Bhutia, DFO (KNP/KBR), FEWMD.

Attendance of the Workshop

S. No.	Name & Designation	Address	Contact	Signature
1	Shri Sonam Gyatsho Lepcha Hon'ble Dy. Speaker	Government of Sikkim	9434023846	
2	Shri Tshering Wangdi Lepcha Hon'ble Minister FEWMD	Government of Sikkim		
3	Angeli Gupta	Adakthaya	9833310222	
4	Shamun, Co.	SP/Naith	9897289629	
5	Pulao Nangyal Lepcha	Chairman Forest Dept.	9434174704	
6	Nim Tsh. Lepcha	Upacharya	9434191531	

S. No.	Name & Designation	Address	Contact	Signature
7	N.W. Tanang	Forest Dept.	9484158023	
8	J.B. Subba	Forest Dept.	9933114007	
9	P. P. Gang	"	9002958804	
10	Nisha Subba	"	9593385156	
11	Sanam N. Bhutia	"	9934140165	
12	Ghaneshyarn Sharma	TMI India	9800491599	
13	Usha Lachungpa	FEWMD	9434025273	
14	Sunil Kumar	FEWMD		

S. No.	Name & Designation	Address	Contact	Signature
15	Hishay Bhutta.	Lachung	947500979	Hishay
16	Pancham Dhangra Bhutta	..	9475715003	Pancham
17	Dawaishi	Lachung	9474586292	Dawaishi
18	Namgyalwip	Lachung	94392582297	Namgyalwip
19	chundi'ama	Lachung	9475011736	chundi'ama
20	S.T.C.A.M.A	Lachung Gumpu	760277700	S.T.C.A.M.A
21	Pancham Lepcha Panchayat P.	Lachung Ward	9933243664	Pancham
22	Songkit Lepcha Member E.D.E	leek word	9800857024	Songkit

S. No.	Name & Designation	Address	Contact	Signature
23	Chumit Lepcha	Leek word		Chumit Lepcha
24	Nimtero Lepcha E.D.E.M.P.	Lachung Ward	9474412025	Nimtero
25	Chewang Dorjee Lepcha. Project E.D.C.	leek. word	8169861499	Chewang
26	Karna W. Lepcha	R.O. KNP Dzungo	9647901036	Karna
27	Pravin Guising R.O. Social Justice Mangon & Sikkim	Mangon.	9083921297	Pravin
28	Suman Dada Tamang R.O. Social Justice Dzungu, Sikkim	Dzungu	9592783620	Suman
29	PEMA-R. BHUTIA B.O.G./Ch. Hng	CHUNGTHANG.	760244252	PEMA-R.
30	Poliga Bhutia F.R. NAKH/V/L	LACHUNG	9679902795	Poliga

S. No.	Name & Designation	Address	Contact	Signature
31	Passang Lachung (member)	Lachen	758198002	Passang
32	You ben Lachung (member)	Lachen	9474349023	You ben
33	Thendup Lachung (member)	Lachen	9434459366	Thendup
34	Gokay	Lachen	7550996035	Gokay
35	Bum	Lachungpa	9932384444	Bum
36	At Regong	Lachen.	9474692110	At Regong
37	P. Lachungpa	Lachen.	8372989038	P. Lachungpa
38	Chada	Lachen	9475713850	Chada









S. No.	Name & Designation	Address	Contact	Signature
39	འཇུག་ལྷུང་། འཇུག་ལྷུང་།	འཇུག་ལྷུང་།	7535919895	འཇུག་ལྷུང་།
40	Pem chodon	Lachen	9932370009	Pem chodon
41	Mingyul Chomul Lepcha	passingdang Saffo G.P.O	9593279982	Mingyul
42	Dorji KAZANG Lachungpa	Lachungpa	94774623917	Dorji
43	Hishay Lachungpa	Lachung	9474058595	Hishay
44	Nima Lachungpa	Lachung	9475031702	Nima
45	Chedup	Lachung	9475713700	Chedup
46	Namden Salyaka.	R.O. Mangon.	8962609881	Namden





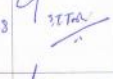


No.	Name & Designation	Address	Contact	Signature
47	Sonam Tshang Lachungpa	KNP ACF North	9434318264	
48	Norden Z. Buntin	Dzongu (T)	964943429	
49	Pandep Lutsa	ROCO Lachung Lachung.	9474551830	
50	Phume Yangdon	Forest (T) North Pentek, Mangon	9599348886	
51	Rimo Lepa	Forest (T) North	9733193936	
52	Hema Maya Crantons	Forest (T) North	9934501350	
53	Tshering Roper Lepa Parlyat Secretary ECC member	16 Tingrang	7872874638	
54	Dupden Lutsa ECC President Tingrang.	Tingrang C.P.V. U/Dzongu.	9593788048	


No.	Name & Designation	Address	Contact	Signature
55	Pemba Tshering Panchayat President 16-Tingrang G.P.V.	16-Tingrang G.P.V.	9593783641	
56	Norden Z. Buntin 12 Sakyang Lachung G.P.V.	Sakyang	9002017534	
57	Chodra Lepa Passindas 24th member.	15 Passindas Sakto G.P.V.	9635642248	
58	Dupden Lepa Lingpa EDC President	Lingpa	9775455754	
59	Norden Z. Buntin Lingpa EDC President	Lingpa	8766728056	
60	Passang Lepa Lingpa EDC member.	16 Tingrang G.P.V.	9592374183	
61	Gyapo Lepa Panchayat.	14 Lingpa Lachung	9593274205	
62	Ningdupher NAICS President	Passing Dang	7602050886	

No.	Name & Designation	Address	Contact	Signature
63	Pemba Tshering Panchayat Secretary G.P.V.	Lingpa	8158850072	
64	D. Lachungpa	North	943447417	
65	Namgyal Tol. Buntin	DPO G.P. North	964978 3298	
66	Sonam Wangdi Buntin	ACF/Env & Sc Mangon.	94341 74884	
67	Sandep Buntin	ACF/Env & Sc Dzongu	94341- 94544	
68	Norden Tshang Lepa	ACF Kiki (T) Sub Division	7872886098	
69	K.N. Guntin	Staffs Div. Office Mangon	943440944	
70	Sa. Muntin	Staff/Env/Sc	90320 70744	

No.	Name & Designation	Address	Contact	Signature
71	Lachung G.P.V. 943416	Mangon, North Biktin	7696775535	
72	Dubro T. Lepa G.P. Mangon	Mangon North Biktin	9815763813	
73	Dupden Lutsa (ACF/Env & Sc)	Mangon/N. Biktin	9002121900	
74	Dupden Lepa Panchayat Vice President	Lingpa	9434357499	
75	Nalimit Lepa Panchayat v. President 16th Tingrang G.P.V.	16th Tingrang G.P.V.	8348549201	
76	Sonam Orgon Lepa	9 Sakyang Pandong	8145730702	
77	Chandup Lepa	Sakyang Pandong G.P.V.	9593388007	
78	Tshering Doma Lepa	Hee Agelling	9633709336	

S. No.	Name & Designation	Address	Contact	Signature
79	Passang Lepel	Lama Wajdy	960900 5728	
80	Lanto Sachel	Haga	850666192	
81	Tu Lachungpa	ACF (+)	81458176 48	
82	Jigne Tsewang	ACF (+) HQ	8116158170	
83	Tenzing Bhutia	B.O (+) mangan	7407380918	
84	Dawa Tenzing Spacha	W. S. Chokidar	7872880259	
85	Pamgy Lama	Gangde	636034535	
86	Tenzing Vangchuk	Lama Mangan Pabok	758599932	

S. No.	Name & Designation	Address	Contact	Signature
87	Uba phetel	Dangay Krop. CO.	96790096	
88	C.C. Lachungpa	ACP (+) Chugap P. E. M. D.	742507742	
89	Sonam Tenzing Bhutia	Mangan Pabok	9593272424	
90	Tashi Tenzingpa	President m. l. m. s. D. Z. m. g. n. 54353	83720-	
91	T. D. P. T. E. B. S. T. I. B.	S. D. M. / D. Z. m. g. n. u.	9434409287	
92	Sonam T. Tashi	S. D. M. / CHOWATHANG	8670373493	
93	Palden W. Lachungpa	DCSO Food & Civil Supplies Dept.	814589621	
94	Dup Tsh. Kipha	BAC, Puringdong	964787055	

S. No.	Name & Designation	Address	Contact	Signature
95	Nawa Tsopa Romp Office (7)	Phadong	9543284493	
96	Phuphema Bhutia Romp Office (7)	Phadong	7424516072	