

- Farmers are unaware of using the fertilizers in equal proportion as per the required norms & standards resulting in ill-effects on the health of mankind & lots of diseases now days.
- We are advised to use of organic fertilizers instead of artificial fertilizers.... But we are unable to make organic fertilizers because now a days people don't keep sheep, cows resulting in the use of artificial fertilizers on our farm lands.
- Moreover now days, we don't use ancestral toilet system, We changed to use modern bathrooms resulting in further lack of usage in organic fertilizers.
- Someone in public suggested for using composed fertilizers....by using dry leaves mixing with waste garden leaves or products by covering with polythene bag during the time of autumb. Then we can use it during spring time in Ladakh.
- Now coming to food habits and life style.
- Now days younger generation are more prone to eat the market products or to get fast foods from market.....(go and get a bread from market).....this results in obesity and unable to walk properly. The reason for obesity is not working at home, doing farming, leading a comfort life style & further not eating local food products which are very rich nutrients.
- Now days a change in Ladakh society is due to the increase of cash/money & people are going for ready made market foods.
- Not focusing on alternative education...we have to focus on farming is also education.
- We have a steryotyped thinking in our society...a farming carrying a plough to an agriculture farm....is not much looked by people as educated but on other hand a person wearing a shinning cloth going to an office...he is a big man.....so we have that kind of thinking which needs to be changed....is one of the solution for sustainability.
- One complaint with organic farming is its less in quantity?
- So a solution to this iswe need to educate the masses what exactly we mean by organic... the not use of artificial fertilizer...the impact of using artificial fertilizers on health.
- By adopting organic farming will be a means to cultivate good merits & feel good factor because lots of insects are not killed in the farms by use of artificial fertilizers & people will be fearless by not using artificial means of producing agriculture cultivation.....a good feeling will develop among those farmers who adopt organic farming.....by understanding that they produce this agriculture products sincerely, honesty and with hard work.
- Another very important problem which has cropped now days with farming is the complaint among farmers that..... less number of people are working on farms & labour charges at farm is very expensive.

- The solution to this is we need to start taking our children to farm and train them in farming ...so we don't need to use paid labour in it... because all the family members will be working on the said farm
- The second solution for this isduring old time and even now at some places we used to have (lang-de) system.....means one neighbor or a community member helping each other.....so we need to revive (lang-de) system now days is another solution for making agriculture a sustainable one.
- Another problem with the use of artificial fertilizer is huge impact on our health even cancer diseases..... Not to use chemical and fertilizer for that.
- To avoid weeds in our vegetable gardens is to adopt an organic solution byuse of ashes produce from local Ladakhi stoves...
- One imp thing we all need to know is that why we eat food? We consume food after putting artificial fertilizers....we get infected with many diseases after consuming this food and our life gets shorter.....so ones everybody comes to know or realize that we consume food for living and what we need to live long ...then use of artificial fertilizers will automatically decreases.
- Ladakhis are getting lazy and says that there is no income from agriculture occupation..... so a solution to it is to open a local mandi/shops of organic products.
- Another solution to it is to increase the prices of local grown products ...organic products as compared to the products bought from out-side Ladakh.
- We need to go more advertisement of organic products....we have to use the organic tag in the market.... This will opt the people to carry more agriculture occupation in coming days.....as next generation.
- We have no marketing skills in Ladakh till this date to develop marketing skill
- We also need to protect our environmentby adopting waste management projects.....old means of waste managements skills practiced by ancient people of Ladakh
- Use of pesticides and other artificial fertilizer are killing so many living & non-seen micro organisms in the soil & further making the soil hard, further when it is so drain with water in the water streams it is killing fishes...so the best means to over come all this problem is to go for ancient agriculture practices.
- It is important that Children should know how to do farming.
- Parents should take the responsibility seriously to teach their child in carrying farming activities.
- What now a days parents does is thatthey say that their children are educated so that don't take their children on agriculture field..... by saying that the child should rest at home and shouldn't come in bright sun out side..... which is incorrect.

- People are saying that ...we are noticing very less number of people on the agriculture fields now daysso the solution for it is we have to increase our population.
- Another draw back now days we witness is a drastic reduction in population of domestic animalswhich were not so during our childhood days..... during Sunday holidays....we used to see lot of animals, we all the children from village use to assemble at grazing fields..... so now days we don't get natural fertilizer...this is one of the problems. Due to this we are forced to use chemicals and artificial fertilizers. People understand that use of artificial fertilizers are danger to health
- So the solution to this is to increase the rearing of domestic animals & to adopt the new means of organic leave compose methodology.
- Another imp reason of using artificial fertilizers is due to increase in incomes from selling such products in the market..... So now the solution to it is to develop the feeling of contentment.....means I am happy with what I have and not going for big. & another solution is to accept loss from use of organic fertilizers.
- We all speak about the ill-effects of artificial fertilizer on health and environment. So keep on saying and speaking about it is not workable.....the only solution to it is to ban the artificial fertilizers by Govt.....so one's its gets ban and people won't get artificial fertilizers in Ladakh.
- Using of artificial fertilizers is easy...and people have develop it as habit. So what we need to do is not immediate solution for it but it can slowly and slowly workable.
- So slowly when the people are educated and aware about organic products....then the use of artificial fertilizers are automatically stop....so we need more and more time for it.
- If the use of local manure is yielding more and more production of local barley and wheat....but the problem is we don't have such customers who will buy this products at high cost.....this is a problem?.....the solution to it is we need to innovate new ideas for sale of such products.
- Problem: Lack of man power in villagers... we only find old man and women in villages and not youths on ground..... So where there is no human population , there is no one to cultivate land , and no culture..... so in villages only we can find wild grasses....which is a great source of concern.
- So we have to find the answer to this why we lack human resources in Ladakh.....why youths of Ladakh have abandon village life and not staying there & not doing farming..... the reason for it is they find agriculture a difficult job....but our opinion is that in present time agriculture farming looks very easy compared to ancient times..... Farmers can plough their agriculture farms in one day, even grinding wheat in one day. In old days our grand father and mothers even us used to work in (Ancient) water-mills for grinding wheat for 10 days. So now days it has become very easy, during old days the cultivation of agriculture used to take $\frac{3}{4}$ days... so you can think how difficult it used to be but now days it only takes one day with use of machines.....even in few hours with the use of tractors...so one can think how easy it is..... even after it is getting so easy we still say farming is difficult then that is wrong..... so the next generation or youth must be educated that to sustain one-self we have to depend on agriculture.....it

is the key of sustainability. (So sustainability can only exist when our we start adopting sustainability in ourself.)

- Now we need to plan our self.....which is measurable, achievable, reliable & time bound....work out which is workable in small ways.....so the youths need to devise new planning where they can sell the products at village level.
- There is an old Ladakhi saying (when you are bankrupt or lose your financial status.... Depend on agriculture).....old Ladakhis have not use this words just like that, people have said this because we can see the income coming from villages..... so there is a source to it.
- People all over world can't live without food and its farmers who produce this..... so farming can't be without any source of income.
- So the youths shall use new technology and scientific means of farming now a days.....so they should bring cash income in villages.....so ones this is done, people will stay in villages.
- Lack of awareness..... Everybody says not to use artificial fertilizer & chemicals and to go for organic but the irony is they still use artificial fertilizer?
- People don't know the effects of using organic & non-using organic.... Or what are the benefits of organic.
- People assume that many people know the draw back of using artificial fertilizer or chemicals but the reality is that they really don't know the ill-effect of chemicals.
- So people don't know the use of artificial fertilizers or chemicals are causing cancer but now the people have to understand what is alternative means of fertilizers..... which is not artificial or chemical ones.
- So we need to develop local fertilizers which is as nutrient or strong to compete other artificial fertilizers.
- Scarcity of water...Problem?
- In our village chushot I give you a personal example. Our village has three parts..... and I live in the last area which faces water scarcity due to unable in reaching the water at last part of village. So this time we put water to our field through motor.
- So what are means or solutions for water scarcity are.....
- We have sprinkle irrigation or dip irrigation.... as we notice melting of snow every year...so now time has come to adopt environmental friendly methodology.
- Isolation....Now if we produce good amount of vegetable and now we want to sell this out side Ladakh....the problem of transportation comes in picture.
- So if a villager produces good amount of vegetable at a distance of 50 kms from Leh city....now if he wants to sell the same at city. Now the problem is the transportation

cost he has to bear...which will make the vegetable very costly & the price of the vegetable is spend on transportation.

- So the solution for isolated areas and market is.....
- the common problem of Ladakhi people is they produce a product today and just closed it on the very next day.... Some will carry this for few days but they also drop it after some time....seems like energy is dropped..... and finally comes to an end.....so in marketing we need three Quality, Quantity, and Continuity.
- Quality we have to maintain.
- Quantity ...if one farmer is asked by a shopkeeper to bring 7 bags of potatoes everyday... so he needs to provide that everyday..... he needs to maintain continuity....so he will continue for 3 days and after that he says sorry to the shopkeepers..... so on 6th or 7th day he will run from distance due to unable in supplying in continuity.
- I can give you an example of out-sider from Ladakh who runs a shop in Ladakh, what he does. If a shopkeeper is run out of a particular article what he does is? He gets this article by calling 10 shopkeepers who possess the same. So what he does is continuity..... Now what we say is that there is no problem of market...for e.g army supply needs quantity.
- Another problem in Ladakh is short season.....agriculture season is very short in Ladakh.
- Solution to it is green house and there are many varieties of green houses now days with modern technology.... We are not adopting modern technologies.
- We need to develop our self into bigger co-operatives and federations is very imp.....if army demands 100 quantails then one man can't supply that but a federation can do it..... Co-operatives are very successful in Ladakh but we need to open more.
- So we shouldn't sit by saying that our cultivation season is small in Ladakh.
- There are many opportunities also because due to short season we get a Rs 50 for 1 kg vegetable.
- So at the peak of winter if we can grow vegetables then a farmer gets Rs 120 for 1 kg vegetable.
- So we need to adopt new technology which is market oriented and good for health..... so we have to adopt green house technology at large scale on commercial basis.
- So what we mean by green house is not just mud-wall but also low tunnel, walking tunnel, trench....we can cultivate our vegetables.
- Another problem is increase in concentration of green house gases.... Global warming is taking place..... so who are global warming creators ...its we. So we have to accept that.
- Effect of green house gas....Ladakh is now observing frequent change of weather....some time back we had cold weather and now its suddenly hot.

- Growth of pest suddenly in our gardens.
- So what solutions we have..... During old days Ladakh was self sufficient in agriculture products.... No need was to get food by polluting vehicles and air.
- So now we need to adopt those ancient means to reduce pollution....we need to produce vegetables which is a practical example we have seen it through green house structures.
- Ladakhis are eating 3 times rice everyday so instead of that we should cultivate the habit of eating our local grown products like barley and wheat.
- So we should not relinquish our own food habits which are very organic and helpful to health & environment.
- So if we can grow local products then there is no need to get vegetables from outside Ladakh by polluting our land.
- As due to sudden growth in temperature on land, we see coming of pest on our land , apricots trees and fruits affected by insects. So the solution to it isas we all know all the plants are created by nature, so nature also protects them.. as bio creators ...for e.g there is one flower in Ladakh known in Ladakhi as (guru-mak-mal). Plantation of this flower removes pest due to its smell. So we have so many ancient wisdom which we need to innovate.
- There is a need for weather prediction centers around Ladakh. For e.g prediction of rain, floods... so such prediction will aware farmers when to harvest or not.
- Another e.g in other part of India if the cultivation of rice & wheat is good but the onion is not good. Then Ladakh can prepare to cultivate onion and supply to other parts of India where the onion is not good...so what we lack is those information centers.
- Lack of resource center & information center is a big problem
- So we need a cluster level of resource center or information centers in Ladakh..viz Changtang, Nubra, Sham e.t.c
- Scarcity of water is a big problem.... Which can be solved by diverting the river(Indus) water which goes complete waste in Ladakh.
- Constructing of dams for agriculture purpose by the usage of river water is very beneficial.
- First green revolution took place in India around 1980's. The places like Punjab where green revolution was started witnesses the large growth & more yield of crops/ products resulting in huge incomes and use of hybrid seeds. But now its effect is not good in present days at Punjab because the production is not as good as what it used to be.
- So now we are going for 2nd green revolution which means using GMO (Genetically modified crops)

- There is escalation of suicide rates among Indian farmers.
- So the use of these hybrid seeds results in increase of crop production for few years but then the nutrients in soil is lost automatically.
- We don't have to use pesticides.....and move for a sustainable development.
- Soil research center is needed to know the potential of soil...for e,g nitrogen, potassium.
- So the effect of it on Ladakh