GREEN MANIFESTO for PUNJAB

Agenda for Punjab's Prosperity, Food Safety, Health, Happiness and Sustainability
GREEN MANIFESTO FOR PUNJAB
Agenda for Punjab's Prosperity, Food Safety, Health, Happiness and Sustainability

THIS CHARTER HAS BEEN PROPOSED BY:

1. Devinder Sharma, Mohali- 9811301857
2. Gobind Thukral, Chandigarh- 9417016030
3. Dr R S Ghuman, Patiala- 9872220714
4. Gyani Kewal Singh, Former Jathedar, Takht Sri Damdama Sahib- 9592093472
5. Dr G P I Singh, VC, Adesh University, Bathinda- 8872042987
6. Dr Amar Singh Azad, Environmental Health Expert, Patiala- 9872861321
7. Umendra Dutt, KVM, Jaitu- 9872682161

Vatavaran Aty Samaj Bachao Morcha, Punjab
GREEN MANIFESTO FOR PUNJAB
Agenda for Punjab's Prosperity, Food Safety, Health, Happiness and Sustainability

The main outcomes that are sought through this Green Manifesto are:

- Ensuring environmental sustainability and profitability in Punjab's farming
- Revival, restoration and conservation of environmental resources including (ground) water and tree cover, and addressing the environmental crisis of the state firmly and urgently
- Addressing the environmental health crisis of the state through remedial and rehabilitation measures, and by ensuring food safety and removal of environmental toxins
- Lay the ground for medium and long term environmental revival and sustainability by sincere promotion of environmental education in the state
- Ensure that rural industrialization is agro-based, employment-providing, non-polluting and resource-conserving.

CONTEXT

- Punjab has only 1.5% geographical area of country but has the highest intensity of pesticide usage (per unit of land) – about 6620 metric tonnes of technical grade material get used annually on an average, on only 79 lakh hectares of cropped land in Punjab, as compared to 43,660 metric tonnes on 1950 lakh hectares at the national level!
- The same applies to chemical fertilisers' use in the state. While at the national level, the per hectare fertiliser consumption is 125-130 kgs/ha, in Punjab it is about 250 kg/ha.
- Punjab has 84% of its land under agriculture with cropping intensity of 186%. This means great exploitation of natural resources, and also widespread prevalence of deadly toxins from agriculture in its ecosystem.
- Only 3.3% of Punjab's land is under forests and 3.4% under (non-forest) tree cover.
- Out of 138 development blocks in Punjab, 109 blocks are over exploited and critical. Each year, the water table in Punjab is going down by 4 feet on an average. 145% of the available water is being drawn already.
- There are around 14,500 tube wells in Punjab (one on an average for every 10 acres of cultivated land) and each year thousands of farmers are forced to deepen their tube wells resulting in greater use of energy, greater drawals of water from deeper aquifers. Meanwhile, Punjab's average
rainfall is only 500 mm, with most districts having lesser rainfall than this.

- Apart from water depletion, water contamination is a major concern in the state both with pesticides and nitrates and other chemicals from fertilisers.
- Soils are degraded, including with water logging.
- More than 10000 farmers and farm labourers are estimated to have committed suicide in the past 15 years in the state.
- Within the 14 lakh agri-households in the state, 53.2% are estimated to be indebted with an outstanding loan in 2013 of Rs.1.2 lakh rupees per household. This is the highest in the country. For the households in the smaller landholdings categories, the institutional credit coverage is between 30% to 45% only. Another estimate shows that farmers are under a debt of 75000 crores in the state.
- For more than 2.2 lakh households in the state, total income from all sources is less than total expenditure per month. For about 7.2 lakh households, income from the farm enterprise is not adequate to take care of household expenditure.
- Rs. 12520/- is the average farm business-related net income per agri-household in Punjab. At 2 adult workers per household, this works out to around Rs. 200/day per person. Minimum wages in agriculture in Punjab is Rs. 277/day.
- Increase in cost of cultivation is outpacing increase in receipts. Livestock farming is fetching increased incomes in the recent past.
- While that is the state of environmental resources and farm economics, Punjab is also fast heading towards a severe environmental health disaster. Allergies, Auto-immune diseases, Intestinal and Respiratory diseases, Psychiatric disorders, Thyroid Dysfunction and Cancers etc. are playing havoc with our health. Our reproductive system has been grossly damaged. Falling Sperm Count, Declining quality of semen, Spontaneous Abortion, Premature Births, Congenital Abnormalities, Childless Couples, Menstrual Disorders and Hormonal Disruptions etc. all have tremendously increased. Similar disease patterns and reproductive problems are being seen in our cattle. The number of many wild animals is declining fast. Some have become extinct while many more are on the way to extinction.

It seems that Punjab is heading towards becoming a “Dying Civilization”. It is clear that Punjab needs to be pulled back from this brink of devastation. The environment of Punjab is no longer safe for human survival. We must analyze where we have erred. The success of a development agenda that we create for the state will depend on whether we have learnt from any past mistakes or not, and in incorporating best practices from everywhere into our planning. The first thing we must acknowledge is that only an ecologically sustainable Punjab can be economically sustainable. The development agenda will now have to include intelligently planned conscious activities for the revival and restoration of our ecological foundation. The primary task of the new Government would hence have to start with an acknowledgement and full assessment of this ecological disaster. Then, we have to take steps on a war-footing, for ecological restorative activities, that would include social and environmental remedies to restore human health. We should
establish guidelines and policies, followed by necessary Acts and institutions regarding the future management of these life support systems, so that we do not repeat the mistakes which jeopardize our survival. This would mean policies that should take a broad look at our development paradigm (model) vis-à-vis environmental security and would have to address the sectors of agriculture, health, education, social welfare, food, water and industrial development.

It is in this context that we wish to draw the attention of the all Political Parties of Punjab to the following Charter evolved through a consensual process by numerous citizens’ groups in the context of the upcoming elections in Punjab (2017).

AGRICULTURE: ENSURING SUSTAINABILITY & PROFITABILITY IN FARMING

Despite high yields in a few major crops, farmers in the state are one of the most indebted in the country. Farm suicides continue unabated, the worst symptom of this agrarian crisis. Excessive use of toxic agro-chemicals, mono-cropping and water mining has led to severe degradation of environment which has in turn led to health crisis. To reverse this, all political parties should commit themselves to making Punjab’s farming economically viable and environmentally sustainable – these are not mutually exclusive, but interlinked objectives. If we want to save Punjab, we have to save agriculture and peasantry. The following are needed for the same.

- **A Policy that Empowers Farmers and makes Agriculture Sustainable.** Such a policy will focus on farm suicide prevention, reduction of debt burden on farmers, promotion of sustainable agriculture and guaranteeing minimum living incomes to farm households.

- **A state level Pulses and Oilseeds Mission should be set up,** to improve crop diversity in the state. Such a Mission should aim to make the country self-sufficient in pulses and oilseeds.

- **Establishment of a Natural and Organic Farming Board** to develop and implement a road map for promoting natural and organic farming from research to marketing.

- **Setting up of a State Institute of Natural and Organic Farming** to take up research and training related to agro-ecological farming.

- **Setting of ambitious and achievable targets for scaling up agro-ecology:** Apart from using existing Government of India schemes, special state level schemes should be instituted to scale up agro-ecological farming all over Punjab. This should be accompanied by large scale campaigns on the ill effects of agro-chemicals and advantages of sustainable agro-ecology.

- **Ensuring separate and appropriate investments for marketing of natural and organic produce:** One of the most important ways of incentivising agro-ecological approaches in farming is to ensure that farmers get remunerative markets for the high-quality and toxin-free production practices that they adopt. For this, there has to be adequate investments on storage, processing, value addition and retail infrastructure.
• **Regulation of agro-chemicals and GMOs rigorously, to protect health and environment**: Promotion of organic farming also has to be accompanied by a plan to phase out agro-chemicals, and stopping environmental release of GMOs.

• **Setting up of a State Farmers’ Income Commission**, to ensure dignified minimum incomes to every farming family. Commission should assess, track and intervene with a basket of measures to improve farm incomes in the state and ensure minimum incomes delivered. Farmers here include agricultural workers also, as per the definition of National Farmers’ Policy 2007. Further, Farmers here mean Cultivators and others and not (absentee) landowners. This should not be equated with only direct income support, but accountability of all agricultural and rural development interventions in the form of minimum living incomes realised by all farm households. This measure will force governments to focus on incomes and not just the currently used performance indicators like Yields, Mechanisation levels, Seed Replacement Rates etc. This will bring sharper focus on particular regions, crops and categories of Farmers in government interventions so that all farm households are able to realise minimum, dignified incomes.

• **Establishment of a Commission for Agricultural Costs & Prices (CACP)** within the Farmers Income Commission (like in the state of Karnataka) to work out costs and MSP in a comprehensive way, and to provide fair returns to farmers with living margins over their real cost of cultivation. Procurement in the state have to be worked out at prices recommended by this CACP which can be a bonus over and above GOI’s MSP announcements where needed.

• **Instituting of more incentives in various schemes for farmers in the age group of 20 to 40 years**, to make sure that young farmers feel motivated to continue their agricultural enterprise in a viable fashion. Similarly, women farmers and their collectives should be specially incentivised and supported.

• **Development of an alternative marketing strategy**, especially for Organic Produce, and crops other than rice and wheat. Separate organic mandis should be set up in addition to more direct marketing channels from farmers to consumers.

• **Legalising land lease especially where marginal/smallholders are leasing in land, so that their cultivation is made formal, and access to various support services is made possible**.

• **Revival of and investment on Cattle and Animal Wealth**, given that it is a significant source of income for farm households in Punjab.

• **Creation of a clear road map for unwanted animals including cows and wild animals**: At some places wild animals destroy the crops at a large scale—what also need to be tackled effectively.

• **Commitment to intervene in case of anti-farmer policies adopted by Centre**: Agriculture is a state subject. In spite of this, agriculture in the states is affected by many policies adopted by the Centre under the pressure of WTO, IMF or other international bodies. Parties should commit to constantly watch out for any anti-farmer policies adopted by Government of India and must oppose any such moves so as to protect the interests of the state’s farmers.
REVIVAL, RESTORATION AND CONSERVATION OF ENVIRONMENTAL RESOURCES

- **Huge awareness campaigns to be launched.** The government has to spend resources on launching huge awareness campaigns on the matter of environmental degradation of all kinds.

- **Taking up an Ecological Audit:** Political parties should commit to conduct an audit of the state of health of soil, water, animals, cattle and human beings. At present we don’t know the levels of various toxins in air, water, soil, cattle and humans. We must know this to formulate an action plan.

- **Setting up of a State Environment Commission** which shall work as the highest agency for all issues related to environment and natural resources. The commission should be empowered to act as per the needs of the environment and to protect the environmental rights of people of Punjab to get clean air, pure water, safe and nutritious food and prevention and treatment of environment related diseases. The fundamental right—“Right to Life” has no meaning without ensuring above said rights.

- **Setting up of, and raising resources for Punjab Environment Fund,** by pledging Rs. 1000 crores by GOI as initial money, and raising resources by appealing to Punjabi community and particularly to the Punjabi diaspora settled abroad to donate. Industry and business establishments could also be motivated for this.

- **Ensuring that all solutions are put into place, including special guidelines issued under MGNREGS or PKVY or any suitable scheme,** to stop the stubble and straw burning problem that is spreading and getting well-entrenched in Punjab, with various deleterious effects for the environment and health.

- **Improving Tree Cover:** Forest and Tree Cover in Punjab is the lowest in the country. Large-scale state-wide Tree Plantation and Afforestation programs should be taken up with massive citizen participation (and by using MGNREGS and other schemes), with a target of increasing the Forest & Tree cover to 15%. Eucalyptus plantations which are affecting state’s biodiversity should be substituted with biodiverse plantations. This will transform the ecology of the state in a big way—with massive improvements in air quality, groundwater levels, temperatures and rainfall.

- **(Re)Formulation and adoption of a State Water Policy,** which encourages and ensures conservation and equitable supply and use; revival of traditional water sources; harvesting of rain water; protection and stringent punishment for misuse and pollution of water sources. Such a policy should discourage water-guzzling crops, should severely regulate groundwater exploitation, should incentivize collective conservation and usage of water resources through participatory community action and should devise ways for promotion of technologies which reduce the use of water for various activities. The policy should also commit to removal of illegal encroachments on water bodies, including wetlands. Further, it should address the misuse of water in urban areas also. Bottled water use has to be brought down. Alternatives to community RO plants have to be invested upon through such a policy.

- **Adoption of a watershed approach in planning and management of water resources:** We should understand the natural flow of water at smallest level, in our streams, rivulets and rivers and adapt watershed approach to use and conserve that water in different ways. With public participation such an approach will give excellent results.

- **Enforcement and incentivizing of water conservation:** There is an urgent need to encourage and enforce less water-consuming crops in areas with acute water shortage. While disincentives may be thought of for growing wrong crops and also strict regulation on tubewell digging and on particular kinds of
extraction, conservation measures like SRI, mulching, sprinkler and drip irrigation, and any other practices of natural farming should receive extra support.

- **Making rain water harvesting mandatory:** The government would have to make rain water harvesting mandatory in the whole of Punjab. This programme should cover rural and urban areas. Farmers should be encouraged to make farm ponds in their farms.

- **Reviving water bodies:** Thousands of water bodies, ponds and wetlands of Punjab have disappeared over the past decades due to large scale encroachments, destruction of catchments areas, unmindful construction of water channels and other reasons, ruining the entire water ecology of the state and damaging biodiversity as well. This has also caused steep fall in ground water recharging rate. There is an urgent need to evolve a strategy to revive ponds, reservoirs and wetlands. Bold steps are needed for the removal of encroachments. We must stop the use of toxic chemicals for agriculture and industry in the catchment areas. Drains and rivulets should be developed as water harnessing structures.

- **Giving life back to Rivers, to make Punjab a state of rivers again:** Punjab government must evolve a river action plan to revive life in rivers and rivulets, and this should include measures to prevent contamination by sewer water and poisonous chemicals into the rivers.

- **Making Pollution Control Board accountable:** Industrial toxic waste being disposed of into water bodies-rivers, canals, seasonal drains, sewers and even in the groundwater through pits, wells and tube wells etc. is a major cause for concern. Pollution Control Board is not discharging its duty with full accountability and this needs to be addressed with community participation and education.

- **Penalising polluters:** It is important to put into place heavy deterrents and penalties for polluters of our environment, using all the existing laws and rules available.

- **Adopting Zero Waste approaches:** Throwing of toxic and non-biodegradable waste in the water bodies and on the land is playing havoc with the environment in Punjab. Government must adopt a Zero Waste approach for waste management. We should eliminate the concept of waste, by adopting use of recyclable and reusable materials. We should avoid the use of throw away, land filling or incineration of waste. This is also expected to give a number of jobs in producing such sustainable materials instead of the polluting materials like plastics.

- **Putting into place and implement Land Use Plans,** which also include cropping systems plans, and adopt a policy of non-diversion of agricultural land to non-agricultural uses.

**In the medium and long term, this also requires significant investments on Environment Education.**

*Extensive Education of environment:* An intensive campaign of educating all citizens about environment should be launched. Such an education should be part of the syllabus for all schools, with a focus on educating about environment, ecology and culture of Punjab. This should also include knowledge about biodiversity, traditional food and lifestyle in relation to health, economy, ecology and culture of our state. Practical training must also be imparted about ways to prevent environmental pollution, how to monitor environment and how to restore the damage already done to the ecology. All educational and other big institutions must have eco-clubs to undertake activities related to environment.

*Inclusion of Ecological Farming in syllabus:* In a predominantly agricultural state such as Punjab, the students in schools and colleges must know, learn and practice agriculture as part of their curriculum. This would instil in them a respect for this divine work, and at the same time, encourage them to continue farming in their families.
1. Phasing out of Pesticides and other agro-chemicals in order of known toxic categories in a time bound manner & latest by 5 years.
2. Field trials, cultivation, sale and import of GM foods to be banned.
3. Shift to post-modern organic and natural farming within 5 years. Organic Kitchen Garden should receive a large boost in rural as well as urban areas.
4. Regular monitoring and public reporting of residues of environmental toxins in our food, air, water and soil should be mandatory. For this, setting up of at least 5 Accredited independent Food and Water Testing Laboratories for detection of toxic residues of pesticides, heavy metals and industrial toxins in all types of food materials and drinking water is urgently needed.
5. Epidemiological Mapping of entire state of Punjab to identify toxic hotspots. Commissioning of Epidemiological studies in areas where clustering of cases like Cancer, Hepatitis-C and other chronic and incurable diseases is suspected/reported. There is an urgent need for an epidemiological study of such disease patterns prevalent in Punjab. Lab testing of human tissues for levels of toxic chemicals will correlate their levels with the disease pattern. Simultaneously, environmental mapping should be done for levels of toxic chemicals in air, water, soil and food items. The correlation between the three will establish cause-effect relationship. This will identify local factors and consequent elimination of such factors.
6. Setting up of a standing ‘Task Force for Mitigation of Environmental Health Crisis’. The primary work of this Task Force would be to prepare and implement a Comprehensive Relief and Remedial Programme in affected areas.
7. Establishment of Accredited Environmental health laboratory to constantly monitor & publish Environmental health data for systematic remediation.
8. Establishment of State Institute of Environmental Health for continued Research, Collection and Collation of Environmental Health data and provide inputs to Government for solutions.
9. Labeling of nutritional information on all foods should be enforced.
10. Compulsory factoring-in of Human and Veterinary health during formulation and/or implementation of Agriculture as well as industry/commerce policies hence mandatory clearance from Health experts/Environmental Health Commission.
11. Allocation of Minimum 30 % of Health budget for preventive health strategies over and above the Hospital budgets.
RURAL, AGRICULTURE-BASED INDUSTRIALISATION

Farmer Producer Organizations should get same benefits as "Start-up Companies"? The Start-up India initiative gives a lot of incentives and support systems for start-up companies – with all the attention going to “high-tech” start-ups. But it is the Farmer Producer Organizations and small agro-enterprises that will provide much higher employment generation and income generation for those at the bottom of the pyramid. All FPOs should receive the same benefits as being offered under Start-up India initiative. Ensuring access to adequate financing, incentives and exemptions for the first 3-5 years until they become financially viable, and providing support systems – are really crucial elements to enable FPOs to succeed. Otherwise, the farming community will continue to get left behind.

- Providing Funding Support with a Corpus of INR 1,000 crores
- Credit Guarantee Fund for Start-ups
- Tax Exemption for first 3 years (from income-tax)
- Clear norms of public procurement for start-ups

Given the jobless growth of non-agricultural sectors, we have to refocus our industries into the slogan of “Production by the masses rather than mass production” with development of micro and small enterprises that generate mass employment and support the rural (agriculture) sector with additional jobs. Any drive to industrialize the State should be clearly with the following focus:

a. Industries should be non-polluting, or resource-eroding/resource-degrading, but use resources that are replenishable, locally available and help the local economy most.
b. Industries should be sustainable in the long run, depend on local and domestic market and are not seriously influenced by external factors.
c. These should be enterprises that use agricultural raw materials, providing ready markets for primary produce, and have a huge domestic demand. There should be special incentives for health foods and traditional foods' revival as part of this rural/cottage industrialisation thrust.
d. Industries should be such that do not need huge amounts of subsidies and special incentives such as those is being offered in SEZs.
e. Industries should be those that do not displace already locally available livelihood, for example the multi-national retail sector that will destroy local traders.

Emphasis on rural MSME (micro, small and medium enterprises) should be at the centre of industrialization. Particularly, agro-based enterprise and industry is very much necessary, based out of rural areas so that incomes of rural families go up with non-farm livelihood opportunities, and unsustainable urbanization is prevented.
not be able to meet its revenue deficit what to talk of fiscal deficit. Meeting current account demands by selling public property, over drafting and through ways and means provision is bad economics and bad politics. Such a policy shall be detrimental to governance, development and employment generation.

Ironically, the above situation has emerged out of the mismanagement of the economy for well over two decades. There is ample scope for additional resource mobilisation to the tune of Rs 30 thousand crore to Rs 35 thousand crore annually. Mere better tax compliance (particularly in the case of indirect taxes—excise duty and VAT) can generate between Rs 15000 to 20000 crore. Transport, real estate (registration fee etc) and mining (illegal) sectors are other areas in which efficient and transparent system can make additional resource mobilisation to the tune of Rs 5000 crore to Rs 7000 crore. Wasteful and inefficient expenditure (sangatdarshan, establishment of memorials, religious tourism) by the government can save between Rs. 3000 crore and Rs 5000 crore. Between Rs 7000 crore and Rs 10000 crore can be saved by stopping subsidisation of rich, especially in the case of free electricity and water in agriculture as well as urban areas. The assured payment to private thermal power plants (even for non-purchasing of electricity) is also about Rs. 2000 crore. There may be many other expenditure heads which may be mere wastage of public money and only a comprehensive study can bring the facts.

In view of the above the state's priorities should be sustainable agricultural livelihoods, education, health, environmental regeneration, infrastructure, water and sanitation, skill development and development of rural nonfarm sector so as to make people healthy, skilled, educated and employable.

- Note prepared by Dr Ranjit Singh Ghuman
Annexure- I

HEALTH & FOOD SECURITY, INCLUDING SAFE, DIVERSE, NUTRITIOUS FOODS

Chemical Farming-Enemy of Food, Health and Ecology:

All of us need sufficient food to fulfil our needs of energy, proteins, essential fatty acids, vitamins and minerals. To fulfil these needs we need to eat cereals, pulses, milk, eggs, meat, fish, oils, vegetables and fruits.

Green Revolution has increased the production of cereals like wheat and rice. However, production of millets, pulses, oil seeds, vegetables and fruits have declined drastically. As a result, all these foods have become costly and are out of reach of a common person. Because of the excessive use of chemical fertilizers instead of focusing on soil biology with infusion of bio-mass and other sustainable agricultural practices, soil has become deficient in essential nutrients. On the one hand, excessive use of agro-chemicals has poisoned our food; on the other hand, many constituents of agro-chemicals act as anti-nutrients i.e. they don’t allow nutrients to do the needful in our body.

The agro-chemicals disrupt the functioning of hormones, enzymes and other body chemicals which are essential for its functioning including utilization of existing nutrients. In such a situation, the body is unable to utilize even the nutrients which are present to an extent in the food consumed. We enter into a vicious cycle where the body becomes a victim of different diseases because of its being deficient in essential nutrients. So we need food which is free from toxic chemicals and contains all nutrients-carbohydrates, proteins, fats, phytonutrients, vitamins and minerals. The foods available in Punjab after green revolution are rich mainly in carbohydrates and contain a cocktail of toxins. Apart from being deficient in essential nutrients, such foods themselves cause number of diseases.

The food industry has worsened the situation. It is altering and adding chemicals to our foods in ways that they become even more harmful. Junk foods which have become the fashion of today have been proved to be harmful for health because of their being rich in carbohydrates and other harmful practices of food industry. The refining of oils is another such practice because of which oils lose their food value and become harmful. A number of similar practices of food industry in dairy and poultry have also been proved to be harmful.

Chemical Farming (which includes GM farming which is even worse) has become the enemy of food and thus enemy of all living beings in more than one way.

1. It makes the food toxic.
2. It fills the water and soil with such toxic chemicals which persist for a long time. Even if we stop using chemicals today, we will get many of these toxins for decades from water and soil.
3. It kills the microbes and other living beings in soil and water. Microbes and other life forms are a vital link between the nutrients in the soil and plants. They synthesize the nutrients, make them richer and utilizable by the plants. Agro-chemicals destroy the soil ecology, which is very essential for agriculture. The soil becomes hard. It does not soak in and retain rain water/moisture and its fertility declines. This invites the use of more agro-chemicals leading to a vicious cycle.

4. Chemical Agriculture needs more water. Farmers have resorted to using excessive groundwater, from deeper aquifers. Water from deeper aquifers is rich in salts and toxic metals. The salinity of the soil increases. It makes the soil hard. The living microbes and other living beings are not used to high salinity. Their population declines. The life of the soil is directly proportional to the population of living species in it. The extraction of water due to chemicalised water-intensive farming is destroying all of this.

5. Because of the excessive use of ground water and hardness of the soil, we are exhausting our aquifers and going to land into a serious water crisis.

6. Rice cultivation (in standing water) has the worst effect. It makes the soil very hard and suffocates all life inside the soil. The ground water contains high amounts of salts including toxic metals. Because of the evaporation effect, these harmful chemicals get concentrated. This water with concentrated salts and other toxins is harmful in multiple ways.

The agricultural practices of chemical farming over the last 5-6 decades have destroyed the soil and soil ecology. It has filled our food, water and air with toxic chemicals. The health of the Punjabis has been ruined. Our reproductive system is the verge of collapse. The situation is very bad. If we want to save Punjab, we need to launch a war on chemical farming and those who are bent upon promoting it. We urgently need to save the health of Punjabis, our cattle, other animals, soil, water and air. We need security not only to get sufficient food but sufficient food which is safe/free from poisons and contains all essential nutrients in required quantities.

Our motto has to be “FOOD SECURITY WITH SAFE, NUTRITIOUS, DIVERSE FOODS”. To achieve this we need to do the following-

1. Phasing out of Pesticides and other agro-chemicals in order of known toxic categories in a time bound manner & latest by 5 years.
2. Field trials, cultivation, sale and import GM foods to be banned.
3. Shift to modern organic and natural farming within 5 years.
4. Setting up of an Accredited independent Food and Water Testing Laboratory for detection of toxic residues of pesticides, heavy metals and industrial toxins in all types of food materials and drinking water.
5. Epidemiological Mapping of entire state of Punjab to identify toxic hotspots.
6. Commissioning of Epidemiological studies in areas where clustering of cases like Cancer, Hepatitis-C and other chronic and incurable diseases is suspected. This will identify local factors and consequent elimination of such factors.
7. Setting up of a standing 'Task Force' for investigation of Environmental health hazards.
8. Establishment of Accredited Environmental health laboratory to constantly monitor & publish Environmental health data for systematic remediation.
9. Establishment of State Institute of Environmental Health for continued Research, Collection and Collation of Environmental Health data and provide inputs to Governments for solutions.
10. Compulsory factoring-in of Human and Veterinary health during formulation and/or implementation of Agriculture as well as industry/commerce policies hence mandatory clearance from Health experts/Environmental Health Commission.
11. Allocation of Minimum 30% of Health budget for preventive health strategies over and above the Hospital budgets.

- Note prepared by Dr GPI Singh and Dr Amarsingh Azad
Resource Mobilisation in Punjab: Status and Implications

The state of Punjab has been going through a serious financial crunch for the last three and a half decades or so, which has mainly been due to under mobilisation of resources and fund allocation formula and procedures of the Union government. Meanwhile, the failure of successive governments of Punjab to exploit the resource mobilisation potential has also been one of the major causes for such a scenario. The under-mobilisation of resources, along with state’s changed orientation from development to law and order, has weakened the government’s capacity to spare financial resources for capital investment and undertake new development projects. The un-planned and non judicious spending, along with ever rising committed expenditure, further aggravated the problem. The weak financial position had an adverse effect on governance and investment climate in Punjab. This in turn has been responsible for extremely low investment-GSDP (gross state domestic product) ratio and the consequent deceleration in the state’s growth rate.

Punjab started lagging behind in GSDP growth rate since the Eight Five Year Plan (1992-97) when it ranked 13th among the 17 non-special category states. During the Ninth Five Year Plan (1997-2002), the state stood ninth with 4.4% percent growth rate. Punjab’s growth rate was 4.5% and rank was 16th during the 10th Plan (2002-2007). During the 11th Plan (2007-12), the state experienced 6.8% growth and stood 17th, the lowest among all the non-special category states. Even during the 12th Plan, its growth rate has been much below the national average. In terms of per capita income, Punjab stands 7th among the major states of India.

Punjab’s tax-GSDP ratio has been below many other states (between 10 to 15 states) for more than 15 years now. Presently it is hovering around 9 per cent whereas many other states are having tax-GSDP ratio between 10 to 18 percent. Since 1997-98, 10 to 16 states had higher share of own tax revenue as percentage of GSDP than Punjab. The state’s performance in terms of outstanding liabilities as percentage of GSDP and as percentage of revenue receipts has been even worse. The position in fiscal and revenue deficit is no better. State’s public debt has increased to Rs. 124471 crore in 2015-16 while the revenue and fiscal deficits stand at Rs. 7591 crore and 10842 crore, respectively. With debt-GSDP ratio at 30.45 percent, a substantial proportion of state’s GSDP goes in debt servicing and hence not available for development activities and employment generation.

It is unambiguously clear from the foregoing brief discussion that something serious has gone wrong with economic management in Punjab, and there is an urgent need to tackle it like an emergency. The lack of resources is, however, due to lack of political will to mobilise resources, misuse of resources and wrong development priorities. This needs a correction both at the micro and macro levels. The gross under mobilisation of resources (both pertaining to state’s own tax revenue and non tax revenue) needs to be addressed in a missionary mode otherwise the state will
not be able to meet its revenue deficit what to talk of fiscal deficit. Meeting current account demands by selling public property, over
drafting and through ways and means provision is bad economics and bad politics. Such a policy shall be detrimental to governance,
development and employment generation.

Ironically, the above situation has emerged out of the mismanagement of the economy for well over two decades. There is ample scope
for additional resource mobilisation to the tune of Rs 30 thousand crore to Rs 35 thousand crore annually. Mere better tax compliance
(particularly in the case of indirect taxes — excise duty and VAT) can generate between Rs 15,000 to 20,000 crore. Transport, real estate (registration
fee etc.) and mining (illegal) sectors are other areas in which efficient and transparent system can make additional resource mobilisation to the
tune of Rs. 5,000 crore to Rs 7,000 crore. Wasteful and inefficient expenditure (sangatta-darshan, establishment of memorials, religious tourism) by
the government can save between Rs. 3,000 crore and Rs 5,000 crore. Between Rs 7,000 crore and Rs 10,000 crore can be saved by stopping
subsidisation of rich, especially in the case of free electricity and water in agriculture as well as urban areas. The assured payment to private
thermal power plants (even for non-purchasing of electricity) is also about Rs. 2,000 crore. There may be many other expenditure heads which
may be mere wastage of public money and only a comprehensive study can bring the facts.

In view of the above the state’s priorities should be sustainable agricultural livelihoods, education, health, environmental regeneration,
infrastructure, water and sanitation, skill development and development of rural non-farm sector so as to make people healthy, skilled, educated
and employable.

-Note prepared by Dr Ranjit Singh Ghuman
Rural Non Farm Sector (RNFS) in Punjab: Rationale for seeking higher attention and Implications

The fundamental strengths of Punjab are its human, land and water resources. The success story of green revolution, the colour of which has almost faded, has however led to a serious degradation of soil health and depletion of water table. The human resources too are facing a serious deterioration in terms of education, health and skill. The publically funded health and education delivery system in general and in rural areas in particular are facing a serious deterioration in terms of financial resources and human power. The rural schools are mainly meant for the marginalised and residuals as they cannot afford the high expenses of private educational institutions. The budgetary allocation to education and health has been on the decline for well over four decades. The rural students are almost excluded from the higher education in Punjab. Across the rural households in general and labourer households in particular a very significant proportion does not have even one member with matriculation qualification.

It is significant to note that the unemployment (361299 out which 292238 are educated and 69061 are uneducated) data in Punjab is grossly underestimated as is reported in Statistical Abstract of Punjab, 2015. Interestingly, according to an earlier study (1998) by the Punjab Government total youth unemployment (18-35 years) was 14.72 lakh (8.98 lakh educated and 5.74 lakh uneducated) out of which 10.40 lakh (5.84 lakh educated and 4.56 lakh uneducated) in rural Punjab. Unfortunately, there is no study available after this. This means we do not even have exact data about unemployment, what to talk of addressing the issue. But one thing is certain: that the number of unemployed persons, especially youth, must be much higher than the 1998 data or official figures. This necessitates a comprehensive study of unemployment in general and rural unemployment in particular.

According to Census 2011, out of the total workforce (98.97 lakh) of Punjab, 61.79 lakh (62.43%) are rural workers. Out of the total rural workers, 35.23 lakh (19.23 lakh cultivators, 15.88 lakh agricultural labourers are agricultural workers. The remaining 26.56 lakh are non agricultural workers. The share of agricultural workers in total workers of Punjab decreased from 62 percent in 1971 to 36 percent in 2011, a decline of 26 percentage points. This sharp decline is, however, not due their absorption entirely in nonfarm sectors. As a matter of fact, agriculture has been pushing out workforce out of it and non agriculture sectors are not in a position to absorb them. According to certain estimates, employment in
agriculture (crop sector) has declined from 48 crore person days in 1983-84 to 43 crore person days in 1996-97. The employment must have declined further since then but there no estimates are available thereafter. Presently there is only 3 months' work available in the agriculture in Punjab. Thus there is large scale under- and disguised unemployment in agriculture sector in particular and in rural economy in general in Punjab. This has been further substantiated by the existence of nearly 11 lakh marginal workers (who got work between 1 and 180 days in a year) in rural sector. Paradoxically, most of the agricultural produce is sold in raw form by the producers. Thus there is an urgent need to go in for processing and manufacturing of the agricultural produce and that too by farmers' collectives. Such an exercise shall give additional income and employment, especially to the marginal and small farmers and agricultural labourers who are committing suicides.

This would require the development of rural non farm sector on a sustainable basis. The government shall have to play as facilitator, both in terms of finances, technical input and marketing the processed and manufactured products of the producers' cooperatives. In addition to that there is need to encourage the industry to install sustainable, non-polluting industrial units in the rural area mainly based on the rural raw produce, both men and material.

- Note prepared by Dr. Ranjit Singh Ghuman

Green Manifesto for Punjab
As per information placed in Parliament, as many as 56 farmers in Punjab have ended their lives this year, till the date ending Mar 11. The alarming rate of farm suicides has placed Punjab at the second position in the country when it comes to farmer suicides. Trailing drought-ridden Maharashtra by a whisker, considering that 116 farmers had committed suicide across the country in the same period, the Punjab debacle certainly needs serious re-thinking.

Official figures notwithstanding, there is hardly a day when reports of farmer suicides do not appear in local newspapers.

In 2015, 449 farmers had officially ended their lives. 2015 was a bad agricultural year but the death toll on the farm is in fact worsening with each passing month. This year alone, between April 1 and April 26, 39 farmers have reportedly taken to the gallows. Between April 1 and May 12, 72 deaths were reported on the farm. Such a tragic serial death dance is being enacted in a state which is considered to be the most prosperous as far as agriculture is concerned speaks volumes of the neglect, apathy and indifference.

In Punjab, the food bowl of the country, agrarian distress has been mounting with each passing year. According to a study by the Centre for Research on Rural and Industrial Development (CRRID) debt of private moneylenders and commission agents has witnessed a significant hike in the past 10 years. A survey by Punjabi University, Patiala, published in Jan 2016, has put the outstanding debt at Rs 69,355-crores. Many others stay that the outstanding debt of nationalised banks itself exceed Rs 80,000-crore in 2015. Most farmers commit suicide unable to bear the humiliation that comes along when public sector banks and arhtiyas seize their assets when they fail to pay back outstanding loan.

Agricultural economists and policy makers often shift the blame to low crop productivity, failure to go for crop diversification and lack of irrigation. In a State which has 98 per cent assured irrigation and where the per hectare yields of wheat and paddy match international levels there is no reason why farmers should be dying. As per the Economic Survey 2016, the per hectare yield of wheat in Punjab stands at 4,500 Kg/hectare which matches the wheat yields in United States. In case of paddy, the average yield is 6,000 Kg/hectare, quite close to the paddy productivity levels in China. With such high yields and with abundant irrigation available why farmer's should be dying?

This is because while the minimum wage for an employee has now been enhanced to Rs 18,000 per month, what an average farmer family earns in a month as per the NSSO 2014 report is a paltry Rs 6,400, of which Rs 3,078 comes from farming. Nearly 58 per cent farmers have to rely on non-farming activities like MNREGA to supplement their monthly incomes. In Punjab too, as per the latest
calculations by the Commission for Agricultural Costs and Prices (CACP) the per hectare annual return from wheat-rice cropping pattern comes to Rs 3,000/hectare.

Farm income is low because successive governments have deliberately kept farming starved of resources and denied economic price to farmers. In 1970, the minimum support price (MSP) for wheat given to farmers was Rs 76 per quintal. By 2015, the MSP for wheat had increased a mere 19 times, to Rs 1,450 per quintal. In the same period, the basic salary (plus dearness allowance) of government employees has increased by as much as 150 times, for college teachers and university professors by as much as 170 times, for school teachers by up to 320 times and for top corporate executives by a whopping 1,000 times. While the salaries of employees rose phenomenally over the past 45 years, farmers were starved of their legitimate dues. If only the wheat price had been raised by the same yardstick, perhaps by a minimum of 100 times, the MSP for wheat should have been at least 7,600 rupees per quintal.

The Green Manifesto calls for setting up a Punjab State Farmers Income Commission that is mandated to ensure parity in incomes between the farming sector and the organized sector. The Commission should be able to indicate an assured monthly package that a farming family should receive every month. Its term of references must include the production attained by a farmer and the geographical location of the farm.

-Presented by Devinder Sharma

Green Manifesto for Punjab