

# Making of Agricultural Policy

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## 1. Introduction

In the context of changing global scenario towards open market economy the agricultural policy of most of the nations is under severe stress of domestic reforms. The stress is mainly due to the insistence on weeding out the trade-distorting agents, allowing free competition, and increasing the efficiency in the production with the best allocation of natural resources. Therefore, the present normative and theoretical concerns about policy studies are precisely directed at trying to improve the ability of a society and its governance to replace the earlier issues with the new and fundamental issues. It involves changing the pattern of past policies towards the present one and analyse the impacts of these likely changes. In the process of trade led growth, where international trade serves as the engine of growth, trade related decisions are likely to be taken by the central power (Union Government), but the welfare implications of these decisions essentially involve the sub-national governments. In this context the nations with federal constitution will be placed in a tricky situation. Therefore, in such situation, a clear design of the policy is an essential pre-requisite.

Polymaking in agriculture inevitably passes through difficult contours. One can enlist five bold reasons qualifying such difficulties. First, agriculture is an unorganized sector and therefore policy responses are not easily predictable *a priori* with objective probabilities. Second, the information flow to agricultural sector is not as quick as it takes place in other sectors. The information asymmetries in the absence of objective probabilities about outcomes virtually authenticates the formulations of disjointed policies in isolation, without detailed homework and tend to be arbitrary. Third, the agriculture in most of the agro-climatic regions has a strong proverbial weather dependence and thus a quick fire-fighting job is usually the core of the policy. Fourth significant factor is the income and asset distribution in the sector that has always been a point in question. This is further complicated by the income and price variations a peculiarity mark of the sector. The policies framed needs to keep these variations in view. Last, the sector has a strong link with consumers and other industries. The growth of the aggregate economy of any country is sensitive to the

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fluctuations in the sector. Therefore, agricultural policies in India as well as in many countries have a strong State dependence.

Indian agriculture has made rapid strides over the last 50 years. It has contributed significantly to achieve self-sufficiency in food production and avoiding food shortages. Food-grain production has reached 206 million tonnes (1999) from a mere 51 million tonnes in the early fifties. Still, the agricultural sector confronts the very same constraints, in its growth pattern which were hounding it at the time of independence albeit with reduced intensity like: a) uneven development across regions, crops, and across different sections of farming community; b) low levels of productivity and stagnation in it; c) degradation of natural resources. In this process economic viability of the agricultural sector is affected by a) capital inadequacy; b) lack of infrastructural support; f) demand side constraints such as controls on movement, storage and sale of agricultural products, etc. The 59<sup>th</sup> round of NSSO brought out these critical issues in bold relief (Deshpande, 2005). These constraints pull down the rate of growth of agriculture. Agriculture has also become a relatively unrewarding profession due to generally unfavourable price regime imposed by the government and low value addition. Depesantisation and increasing migration to rural areas are two prominent features. But these too do not result into net welfare gain for the sector. Yet, over two-third of the billion population of India still work in agriculture and allied activities for their survival.

Our experience of policy formulation in India is largely from two sources namely the five-year plans and various schemes initiated by the concerned development departments. There is a general lack of awareness about the theory of policy making and therefore to a significant extent the policy is understood often as the problem solving steps taken in the context of severity of the issue and/or a common denominator of various programmes. Actually "A policy aims at specific-often quantifiable-objectives, deploys a array of instruments to achieve them and operates according to a pre-planned time frame for implementation. It lends itself to standardized monitoring and evaluation procedures to assess the outcome and to identify those responsible for the success/failure of the policy." (Rao, 1998: 1). In this study, we have tried to analyse the policy making in India, initially through a theoretical perspective on policy making, followed by the experience of agricultural policy during the last five decades at the country level. This is followed by an empirical study of policy making across the States in the country.

## 2. Theory of Policy Making

In understanding the theory of policymaking we need to take note of the kind of complexities involved in this process. At the first place are the objectives of the intended policy change. These objectives are sensitive to time but could also visualise a long-term goal. Often these changes are influenced by the response of the extraneous factors to the existing policy system. Hall (1993) puts forth three orders of policy changes:

- i. Changes that imply tampering with the current setting of the policy instruments (e.g., Changes that are occurring in domestic policy to meet the WTO requirement).
- ii. Replacing the earlier policy initiative by the other with or without any in-house evaluation (The Agricultural Policy Document of 2000 or the policy changes that occurred in Canada during 1988, opening up the Federal-Provincial sharing of expenditure on the ongoing schemes. Similar was the case about the Developmental Programmes in India during early seventies).
- iii. A complete departure in the policy goals following theoretical or ideological framework involving the state and political actors. (Like the shift towards opening of international trade from earlier strictly guarded trade policy).

We can call Hall's model of effecting policy changes as a mid-course correction model. The changes become necessary either due to fresh policy initiatives or when anomalies accumulate and create social political and economic strain on the State. The question that arises relates to the possibility of incorporating a significant change in the policymaking process either ignoring or incorporating the present institutional mechanism. This model has to be treated differently from the Cumulative Policy Accumulation Model wherein, the policy instruments in the form of programmes change in rapid succession and the resultant cumulative interventions on the part of the State represent policy currents. Here only the new additions are accredited and the discontinued programmes along with the experience of failures are put to the trash bin even without recognizing their institutional corrective role or vacuum that they may create.

Another relevant policy model tracked from the literature is called as Rationalist Model of Harold Lasswell (Lasswell, 1956). This model perceives the policy formulation that goes through six steps.

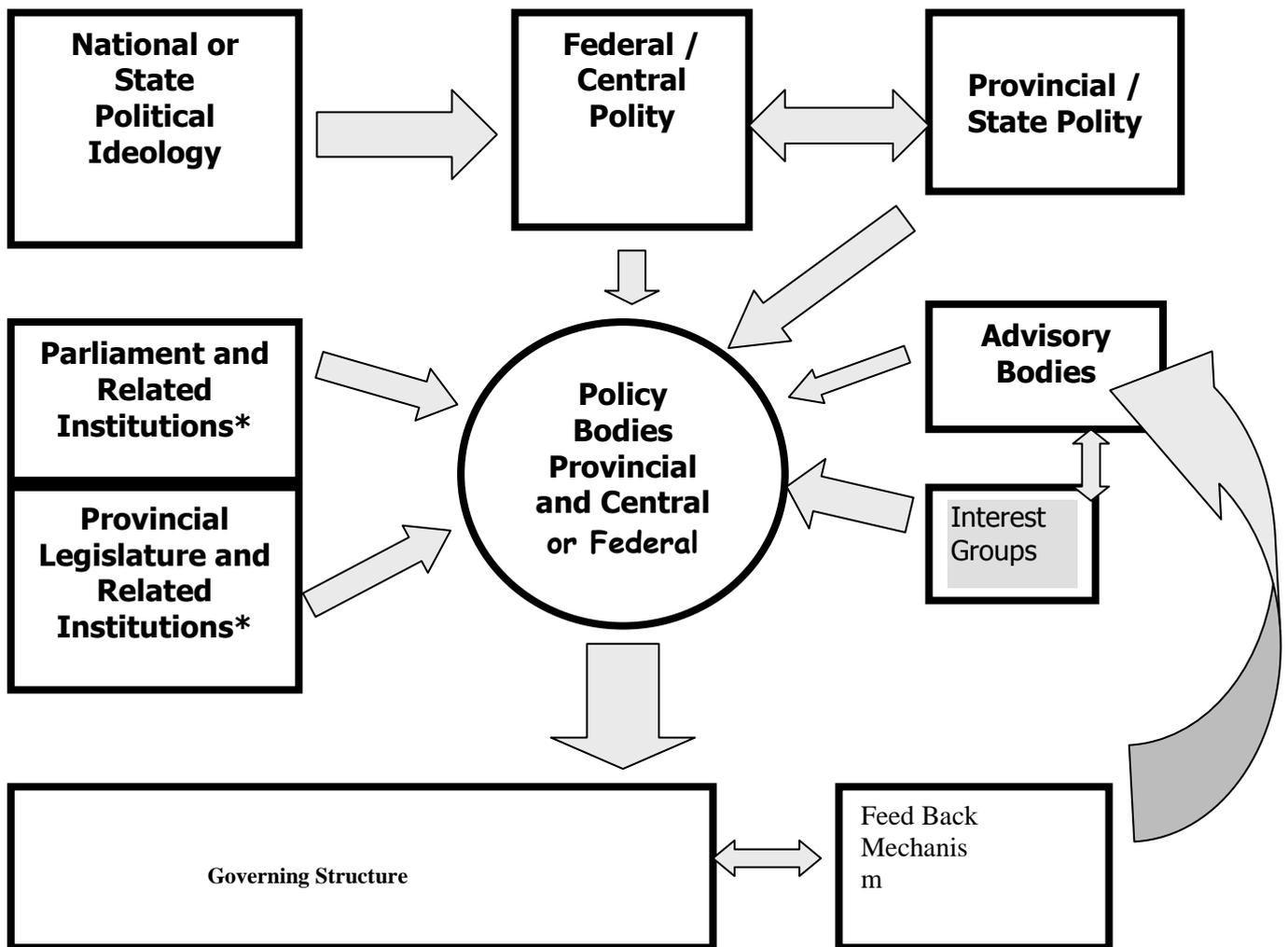
- i. Recognize a Policy Problem,
- ii. Identify the Nature of the Problem,

- iii. Call for Alternatives,
- iv. Rank them all on the scale of welfare gain and ease of operation,
- v. Make predictions about risk and Consequences,
- vi. Come to a decision combining qualitative and quantitative investigation.

Lasswell has elaborated this as the best possible way of looking at policy making (Lasswell, 1956). It assumes the stakeholders in the policy arena as mute participants or understood to be participating inherently at their respective levels of stake. In addition to these there are a few more theoretical constructs, but have little significance in the Indian context. A quick review of these theories suggest that any model of policy will have to be dynamic in its content, as there are rapid flows of different dominating responses from polity and society. Thus, flexibility is an essential accompaniment of the structure of any policy. In the beginning the stakeholders as well as the decision-makers will start with some expectations about the end results from a contemplated policy framework. It gets complicated as the political stakes increase by claiming the credit of success and to assigning the failures. The two phases in policy formulation namely the phase of identification and that of negotiations with the stakeholders are conspicuously absent. Coleman et al (1997) argued an alternative route of attaining feedback through negotiations between state actors and group of stakeholders. But when the stakeholders become aware of their role, at that time in any mature economy witnesses the organizations of stakeholders asking for their rights.

In a generalised policy model the governing structure is dictated by the feed back mechanism as well as the goals set by the provincial and Central policy institutions. Central parliament and related institutions along with the provincial and concerned institutions should provide broad directions to the policy. Provincial and the central political ideologies contribute to this process through the legislature debates. The role of advisory bodies and the interest groups (Farmers' Organisations) is also quite crucial in this endeavour. Jordan et. al. (1994) argue this extensively. They state, "Extensive consultation is an integral part of the management of pressure. Civil servants have stated that it takes less time and effort to agree to have discussions with a group than to refuse them consultation time. This process may be purely cosmetic, but it allows civil servants to present an image of wide participation and over-consultation, rather than under-consultation". In Indian context we have some weak evidence about functioning of this model, but there is no established drill in its functioning. It is however a common feature in Canada and European Union.

**Figure1: A Generalized Model of Policy Formulation**



**2.1. Policy Making: An International Perspective**

Agricultural policy document was not taken separately in India s the Planning Commission was responsible to issue the policy guidelines in each of the Plan Documents. This was something like online policy statements as these were modified concurrently. But largely these were more focused on introducing new programmes and the major policy thrusts were always implicit. However, the international experience in agricultural policy making is quite strong and helpful in understanding the mechanism. An important example of this is the Common Agricultural Policy (CAP) document of European Union, which serves as a good background for the present purpose. In addition to CAP the French Government also has its process of policy formulation and that offers further understanding of the practice. The

Canadian procedure of policy making is interesting for learning the process in a federal system. The Canadian government has a procedure of consultation with the provincial governments and takes into account the advantages of each of the provinces.

## **2.2. European Union with CAP**

The agricultural activities in the countries of the European Union is governed by a Common Agricultural Policy (CAP) which emerged in the early 1960s as a package of rules and regulations to fulfil the desire of the EU to eradicate food shortages in Europe. Its introduction of agricultural subsidies in the Agricultural Union, representing about 50-70 per cent of the EU spending, were aimed at improving the productivity in the sector and ensuring a stable food supply. It is the European Commission, which put forth the proposal for the creation of the CAP in 1960, with the establishment of Common Markets under the Treaty of Rome a few years before. The general orientations of the CAP were set incorporating: (a) Market unity (b) Community preference and (c) Financial solidarity. The member nations were to initiate State interventions in various sectors that included production, price interventions and the farm structures, while France and other farming professional organisations benefitted and wanted to maintain state intervention in agriculture leaving for some of policies at the European Community level.

Initially, the CAP functioned with the objectives which are as set out under the Article 39 of the Treaty. These included: (i) increase production by promoting technical progress; (ii) ensure a fair standard of living for the agricultural community; (iii) stabilise markets; (iv) assure availability of supplies; and (v) ensure that supplies reach consumers at reasonable prices. The CAP set forth the following specific objectives:

- i. To increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and optimum utilization of the factors of production, in particular labour.
- ii. Thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture.
- iii. To stabilize the markets
- iv. To assure availability of supply
- v. To increase agricultural trade
- vi. To maintain balance between structural and market policies
- vii. To avoid surpluses and to give scope to comparative advantage

- viii. To improve capital and labour returns
  - ix. To encourage rural industries
- (Hill, 1984)

CAP being a policy document covering a few countries needed to be more general in its approach and focus. Specific problems were ironed out to seek broad generalisations. About the same time many other countries brought out documents detailing agricultural policies.

The CAP was followed by all the countries under the European Union which include: France, Italy, Belgium, Netherlands, Luxembourg, Germany, UK, Spain, Portugal, Austria, Finland, Greece, Ireland, Sweden, Denmark. The rules and regulations of the CAP were based on common organisations of markets in the countries and taking into account their background. The Council of Ministers remains the supreme decision-making body. It included a wide range of interventions from granting financial support to the farmers and production methods, marketing and controlling the overall supply of food that can be produced by the sector. It helped to govern the socio-structural policy and coordinate farm structures evolution and technology. The CAP emphasised a common external trade policy and legislative unification within the Community. The six main mechanisms adopted by the CAP include: (a) Price support; (b) Import taxes; (c) Intervention; (d) Stock disposal; (e) Subsidised exports and; (f) Production control.

A special fund from the European Agricultural Guidance and Guarantee Fund is maintained for financing the CAP, and is also supported by legal and institutional machinery. Most of the funds were devoted traditionally for the market intervention activity of guaranteeing a price for farm produce of the Member States. This approach ended up with the EU budget paying solely to take produce off the market and into storage. However, concerns rose in the meantime, about overproduction and the rising costs too.

First time reforms were proposed for CAP in 1983, and following that it changed several times but keeping the basic framework intact. This shows the capacity of CAP to adapt and change in the face of challenges. Initially, set out with a goal of increasing agricultural productivity, the policy had to be modified to managing the production surpluses of certain sectors through subsidies to discourage production. It seems all is not well under CAP. Swinbank (1989) hinted significantly about the political economy of decision-making. He

states "The first is that Member States are still intimately concerned with the 'high politics' of the CAP: levels of price support, quotas etc. This fact combined with the willingness of some Member States to resort to the Luxembourg Compromise has meant that decision has been painful: there has always been one Member State unwilling to countenance the consequences of adopting the proposals contained in succession of reform documents submitted by the Commission (Swinbank 1989: 320). Recently, CAP modified its approach on two elements: lowering institutional prices for key products and offsetting the impact of these cuts on producer incomes by means of direct payments. Further changes in CAP were incorporated in 1995 and a strategy towards the understanding the needs Europe's rural communities was proposed. This called for greater market orientation of governed prices and an integrated multi-sector approach to rural development. The reform process of the CAP went ahead and proposed "Agenda 2000" taking account of the emerging challenges and opportunities that face the EU's agri-sector and the rural communities of the Community as a whole. In formulating its policy proposals the Commission identified its key priorities for driving reform as:

- An agriculture sector able to compete worldwide without being over-subsidised;
- Justifying expenditure by the services farmers provide in response to society's expectations;
- Agricultural production that meets public demand for quality with high environmental standards;
- A diverse agriculture that contributes to the well-being of the countryside and to vibrant rural communities;
- A simpler policy that can be applied in a decentralised way.

(Source: European Union website)

With the Union's enlargement the Union agreed to the latest round of reforms in June 2003. The EU identified new elements for reform and that included: a single farm payment for EU farmers; a strengthened rural development policy with more EU money; a reduction in direct payments to bigger farms to finance the new rural development policy; a mechanism for financial discipline to ensure that the farm budget fixed until 2013 is not overshoot and; revisions to the market policy of the CAP. These changes were to be implemented in 2004 except for the single farm payment to start in 2005, giving a transitional period of two years for some countries.

### **2.3. French Agricultural Policy**

The current state of debate about CAP in French agriculture is the result of a prolonged period of adherence & change. Right from the start of the nineteenth century, the French agriculture enjoyed strong protection at the nation's borders. After joining the European Union during sixties, CAP dictated the course of development of the sector.

Agriculture in France is endowed with certain specific natural attributes like a large agriculture sector, diverse soils and climates, and easy access to trade that makes it different from the other partners in the EU. Until 1945, French agriculture was unable to provide for the nation's food needs. Productivity levels were well behind that of other countries in the Union. The country had a bigger challenge meeting the food security and providing livelihood to the workforce engaged in agriculture (Vial, 2001). In addition to this it had to meet the needs of reconstruction and industrial development. The policy efforts were more towards increasing the production and productivity levels, with agricultural machinery and fertilisers based technology. In response to this and by mid-1950s the food production was growing faster than the demand.

The creation of the European Agricultural Market in the Union, it seemed as if an opportunity as well as danger signal has opened for the farmers. The markets of a few member countries were still having the supply crunch for principal products. That was an opportunity for these countries, but the productivity of French agriculture was well behind that of other countries. Against this background, a group of farmers, in the early sixties, succeeded in bringing the government to introduce a "structural" change designed to promote the growth and modernization in the sector. This forced retirement of elderly farmers and the farmlands were redistributed. This policy was introduced from 1972 onwards, in the "socio-structural" policy of the European Economic Community (EEC) (epha.org). In the process the protection of the domestic market and the market intervention mechanisms continued regulating agricultural prices. The fact that the common prices are set at the highest levels already existing in member states created growth incentive, thereby providing a powerful stimulus to investment in farms and the productivity of labour, land and animals. Thus, the common market in agriculture did not encourage strong competition between member countries, but rather led to a general expansion, initially in the domestic market, and then in international markets.

It was quite expected that the EU markets will get saturated over years and it did. The budgetary and international consequences of this saturation gradually changed the favourable environment around 1980s. In spite of rendering help to stop the slide in average incomes with the help of price supports, the CAP reforms have not provided any long-term solution in providing the right general economic framework for agricultural activity. According to the French agricultural policy

network, the aims of the CAP should shift from a mere increasing production and exports towards a recognition of the multi-functionality (economic, social and environmental) of agriculture. All actors in the debate on agricultural policy favouring the necessary drastic changes in the relationships between agriculture and society, environment and public authorities (national and European), the significance of agriculture through the philosophy of public instruments and policy and structural fund reforms assumed importance.

Since the beginning of the 1990s the actors invited to participate in agricultural policy making witnessed gradual change, bringing in environmental organisations, farmers unions, and also the MoE. In 1993 the French MoA started an experiment (The "Plan de Développement Durable" (PDD - Sustainable Agriculture Plan) [www.ephpa.org](http://www.ephpa.org)) to test the feasibility of sustainable agricultural development at the farm level rather than on individual fields, with both economic viability and environmental constraints as priorities. Further, in 1998, a major consultation among the main agricultural stakeholders was attempted to achieve a long-term consensus on a new Programmatic Law for French Agriculture (Loi d'Orientation Agricole) ([www.agriculture.gouv.fr](http://www.agriculture.gouv.fr)). Its schedule corresponds to that of the EUs Agenda 2000 and had apparent consensus on several subjects including:

- Economic agricultural sustainability being strengthened by a range of means such as diversification and organic farming through public intervention to support the multi-functionality;
- social importance, in terms of employment and land management;
- non-productive functions, such as environment protection, as a priority, acknowledged by society through financial compensation;
- more environmentally sound practices to be encouraged through voluntary compliance.

New management tools and instruments were implemented to fulfill these aims. The Farm Territorial Contract (Contrats Territoriaux d'Exploitation (CTE)) took shape defining public subsidies as a contractual requirement for farmers to serve the collective interest. The economic and social goal was to increase farm added value and income rather than farm concentration, to encourage diversification of activities, to support conversion to organic agriculture and quality production and marketing through labeling schemes.

Adoption of a 'balanced development' scenario portraying agriculture as a means to protect the environment and maintain rural activity requires product quality as a major competitive instrument and driving force of agricultural development with farmer net income the main performance indicator and due priority to local economic and social development. Potential contradictions with EU and WTO policy would imply a 're-nationalisation' of agricultural policy, which could be seen as a possible evolution of European agricultural support policy. In such a framework, innovation policy is rather ambiguous and stakeholders may play different roles. French farmers as well as the farm-based polity had expressed reservations about the impact of opening up of the trade and response actions of EU. It was stressed that some framework has to be evolved to understand and meet the stress through policy (Adams, 1999:1-25). The policy making process in French agriculture assimilates differential viewpoints. Epstein (1997) writes, "Finally, because the government wants to achieve its policy goals with the least conflict, it often calls upon the assistance of interest groups in both policy development and implementation. Groups at the table generally offer certain goods – information, legitimacy or tangible resources – to the government, in exchange for a degree of control over policy" (Epstein, 1997:356).

#### **2.4. Canadian Growing Together**

The Canadian agriculture has a better-organised framework in developing the policy. Even being a federal state Canada has developed a process of dialogue with the provinces as well as interest groups. In the changed circumstances of WTO negotiations, the Canadian agriculture and agri-food sector faced new challenges and opportunities. Federal, provincial and territorial Ministers of Agriculture have geared up to develop jointly a renewed Policy Framework with five elements: (i) Business risk management; (ii) food safety and food quality; (iii) science and innovation; (iv) environment; (v) renewal.

The Canadian Federal government has already signed agreements with eight provinces and two territories in Halifax, at the federal-provincial-territorial meeting of agriculture ministers. The Government of Canada and the provinces of British Columbia, Alberta, Ontario, Nova Scotia, New Brunswick, Newfoundland and Labrador signed this agreement with the following framework:

- Set out an integrated and comprehensive policy framework to enhance the profitability of the agriculture and agri-food sector, that respects the jurisdiction of each of the parties and the international obligations of Canada;

- Identify common goals and mechanisms for implementation to ensure progress towards these common goals over the course of the implementation Period, and to provide a foundation for further implementation periods;
- Provide a framework for implementation agreements that will set out the precise measures that each party will take and the timing of those measures;
- Establish funding arrangements between the parties; and
- Establish a mechanism for the parties to report to citizens on progress on all elements of the Framework Agreement, in a manner that is measurable and meaningful. (Source: agriculture Canada).

The Agreement on Internal Trade came into effect on July 1, 1995 and that provides:

- General rules which prevent governments from erecting new trade barriers and which require the reduction of existing ones in areas covered under the Agreement;
- Specific obligations in 10 economic sectors -- such as government purchasing, labour mobility and investment -- which cover a significant amount of economic activity in Canada;
- For the streamlining and harmonisation of regulations and standards (e.g. transportation, consumer protection);
- A formal dispute resolution mechanism that is accessible to individuals and businesses as well as governments; and
- Commitments to further liberalise trade through continuing negotiations and specified work programs. (Ash, 1998).

It has been pointed out by analysts of the Canadian agricultural policy that the transfer costs and efficiency losses were substantial and that the Provincial regulations tended to protect within province systems with heavy costs. Following this view in 2003, Agriculture and Agri-Food Canada (AAFC) implemented its new Agricultural Policy Framework, which sets out a comprehensive national policy agenda and calls for an active partnership between governments, the agriculture and agri-food sector, stakeholders, and citizens. It will be interesting to note that while releasing the document on future Canadian policy under the title 'Growing Together' the Minister of agriculture said in his speech "Federal and Provincial governments need to develop a more integrated approach to financial and management issues. In addition, the close relationship between the farm costs, income and management points to a need to look at whether farm credit and management assistance, as well as safety nets, could be better designed to meet the objective of better risk management", (Growing

Together, 1986, Supplement: 10). Integrated action across the framework's five key elements — food safety and quality, environment, science and innovation, renewal, and business risk management — uniquely positions Canada for world leadership in food safety and quality, environmentally responsible production, and innovation.

## **2.5. United States: Control and Protection**

The Farm Policy in the US is a continued process and decisions are taken to formulate the policy. The development of farm policy in the US is marked by a series of policy steps that coincide with the problems confronted by the country. The farm policy of the US is strongly toned by public support consistently almost over the last 200 years. In the 1920s, a single approach characterised by programmes of farm income support dominated the farm policy. The policy approaches could be analysed in four periods, all of which overlap through decades of debate and transition.

In the first phase, during 1785-1890, the concern of the farm policy was land distribution and expansion of settlement. This focus changed around the 1830s and from 1830 to 1914, productivity improvement became the focus of the policy. This was ensured through support to research and education. Almost simultaneously between 1870 and 1933, some regulations on markets, infrastructure improvements, and provision of economic information to help were introduced. The fourth phase, since 1924, dealt with direct government interventions to provide farm income support. Finegold argues that the change from agrarianism to adjustment occurred in the context of business opinion, the Democratic Party, the Federal agricultural complex and the Farm Organisation (Finegold 1981:24) The discussion about farm income support policies has now accelerated and there are serious contradictions over the movement towards a more open global trade, an increasing emphasis on market-driven production decisions, and attention to environmental costs of agricultural production. A transition towards a new type of policy is yet to be seen.

With the expansion of the land mass of the nation, the US policy focused on expansion and development with legislations such as the Homestead Act of 1862. This encouraged the movement of population and industry to fill the space. Policy developments in this period concentrated on access to land for farming and laid the foundation for policy for the agricultural sector. Despite some opposition to increase access to public land, the policy succeeded in putting in place the land policy. That dominated the policy discussions then. Hence, the Federal land policy created a precedent of Federal support for an independent

family farm system, which has continued to be a prominent public goal of farm policy ([www.ers.usda.gov](http://www.ers.usda.gov)).

As a consequence of the expansion policy the number of farmers increased across the country. This necessitated introduction of commercial farm inputs to improve productivity, professionalism and quality of life. The farmers also got organised and formed state and country agricultural societies to promote the need for specialised training and scientific research. The support for these initiatives came from the South and East, which had been suffering from competition with newly opened lands in the West. The state support for education and research programmes was initiated through four major steps: i. Establishment of the U.S. Department of Agriculture, ii. Authorisation of a national system of agricultural colleges, iii. Appropriation of Federal funds to support agricultural science research at state agricultural experiment stations, and iv. Organisation of an adult education system, USDA's Cooperative Extension Service.

Inequities in distribution and development began to surface as agriculture, manufacturing and other industries continued to expand. Between 1870 and 1890, the prices slumped due to high surpluses of farm products. Severe droughts and natural disasters compounded the problems in the newly settled lands and land became scarce, as farmers moved to commercial farming. They became increasingly dependent on markets. Farmers demanded the State intervention and by the 1890's the demands included control of an expanded money supply, government ownership of transportation (railroads) and communication (telegraph) systems, an income tax to replace high tariffs as a source of Federal revenue, and continued government support for distribution of land to small, independent farmers. Inspired by these ideas other farm organisations also demanded expanding education and research to help individual farmers compete in free markets. During the 1910's and 1920's, these programs were handled through the Cooperative Extension Service and USDA's new Bureau of Agricultural Economics was established by 1924. Legislations were also passed during this period pertaining to markets and infrastructure, to equip small rural producers with market access and economic information that larger commercial interests acquired privately.

In a nutshell the American farm policy from 1933 until the current decade was a combination of price supports and supply management. The debate between the advocates of high price supports, mandatory production controls and those who wished to end direct

government market intervention headed for a compromise in the policy debates. The Food and Agriculture Act of 1965 made most production controls voluntary and set price supports in relation to world market prices, abandoning the “parity” levels intended to support farm income at levels comparable to the high levels achieved during the 1910’s. Further farm legislations passed in 1985 and 1990 maintained the traditional combination of price supports, supply controls, and income support payments, but introduced changes that moved farmers toward greater market orientation, i.e., lower price supports, greater planting flexibility, and more attention to developing export opportunities for farm products. The State assistance to farmers achieved a shift with the Federal Agriculture Improvement and Reform Act of 1996. The US farm policy underwent a dramatic change from 1996. The change has been well documented by Paarlberg and Orden (1996). The decreasing income support payments no longer remained tied to production decisions, pressed by the rising costs of farm income support programs and by the requirements of global agreements that farm income support programs keep production decisions tied to market signals. The low prices in 1998 again started a debate whether traditional policies of direct income support tied to price fluctuations are the most effective solution to farm income variability.

Among the international trade concerns, income support policies have featured significantly for the last few decades, because they can impact global commodity markets. High productivity on the U.S. farms has created a need for additional outlets for the U.S. goods, preferably in export markets and their income support policies have gained increased significance in deliberations over domestic farm policy in the last 15 years as new global and regional agreements have been negotiated that require reduction in trade-distorting farm policies.

## **2.6. Overview of International Scene**

Agricultural policies the World over emerge with a few interesting features and these could be lessons in the process of policy formulation in agriculture sector. First, most of the nations that have a recognizable agricultural policy have an established institutional back up in their department of agricultural administration. The Policy wings of these departments continuously monitor and issue policy statements in response to the problems. This is done at EU with a secretariat on Agricultural Policy and the documentation is one of the strong points.

Agriculture Canada as well as USDA have special cells to respond to the needed changes and the data base to react in time. Second, the consultation process of the EU, French Government, USDA and Agriculture Canada are strongly linked to all the stakeholders and interest groups. The process is a formal requirement and that provides inputs to the policy. This is also true in the cases where the consultation has to be with the federal partners as well as member nations (in EU). The drill of consultation is well set and the governments issue documents after successful consultations (Growing Together, Agriculture Canada). Third, the net income of the farmer is the decision variable and the policy largely operates on this rather than technology, productivity or trade as individual components. The schemes are focused on maximising the net income flow and, therefore, prices and markets are the two crucial determinants. These feature in the process, however, as supporting evidence. Fourth, the changes after WTO in the USDA, Agricultural Canada and EU's secretariat are quite significant. These provide a back up support to the policy formulations and responses of these governments to the WTO requirements. In this context, Paarlberg writes, "Can international agreements help promote domestic policy reforms? The case of agriculture in the Uruguay Round suggests caution. The reforms secured through international negotiations were modest at best. In many instances, the modest reforms that were written into the final agreement reflected policy changes already undertaken unilaterally in response to internal budget pressures or in response to other pressures that did not derive specifically from the Uruguay Round negotiations" (Paarlberg, 1997:441). It is necessary to note that this came out of the analysis of the agri-policies of the US and the EU, which is true even in 2005. Finally, the State expenditure on farm support programmes is quite high and that alone is an indicator of priorities in the policy.

### **3. Towards National Agricultural Policy**

The emergence of agricultural policy in the Indian context can be traced back to the official documents beginning from Foodgrains Policy Committee of 1943 (Gregory 1943). Gregory's policy was framed in the context of the food situation forced due to the Second World War and cessation of rice supplies from Burma. The Committee therefore focused on food availability, control prices, supplies and distribution. It did not address to any long term issue facing the sector, as food was the main issue. At the time of independence availability of food continued to be the haunting challenge for the new government. The Foodgrains

Policy Committee (1947) under Thakurdas was appointed to look into the food distribution aspects and the Committee recommended a revolutionary step to progressively decontrol food. The salient features of the policy included gradual withdrawal of control and removal of restrictions on movements of Foodgrains. This policy of decontrol could not be pursued due to persistent shortage and large imports. This was followed by three committees under Maitra (1950), Mehta (1957) and Venkatappaiah (1966) that were appointed to enquire into the Food Problem of India and means to solve them. These were the important documents flagging the milestone in making of Agricultural Policy *nay* Food Policy during the first two decades. Food production was treated as equivalent to the agricultural development as it was the main problem. Draft on any long term policy for agricultural sector was far away even in the thinking process during those days.

There was no significant and holistic agricultural policy resolution so far though Industrial Policy Resolution was adopted as early as 1948. Agricultural policy was not considered save, drafting and issuing of it in the melee of schemes. Most of the measures taken in past were either focussed on crises management, or for political gain, otherwise backwardness of Indian agriculture cannot be explained (GoI, 1990). Among the available papers, referred to in this study, only the High Power Committee Report (1990) touches the umbilical cord of the Indian rural mass. It lays greater emphasis on improving the human resource base to uplift the agriculture. The report (1990, p.74) rightly suggests, "Indian agriculture need not remain backward and the rural masses amongst the poorest in the world. Both can be uplifted by improving the human resources base increasing the farmers' efficiency through greater user of science and technology, suited to their conditions and placing them at par with others in prices, incomes, facilities and opportunities"( High Power Committee, 1990: P 74).

Rarely, any paper focuses on the vision for Indian agriculture. This had led to a scattered thinking and not weaving a central theme for the policy and prevented crafting the focused objectives and thrust areas. It then led to incoherent statements along the path; they remain mutually contradicting too. An unclear institutional mechanism complicated any further sailing of the whole policy. (We have given a comparative statement in the Appendix table 1.1) The study commissioned by traders lobby (ASSOCHAM, 1998), owing to the authors business first approach they were able to chalk out a vision for Indian agriculture by 2020 that included a) become the driving force of the Indian economy through increased contribution to export earnings, b) generate additional income, savings and investment in the economy, c) through rapid growth of output reduce and effectively remove poverty and starvation, d)

generate exportable surplus of foodgrains and non-foodgrains after meeting the domestic demand at the world prices, e) increase labour productivity to offset any increase in the cost of inputs including wages, f) provide good quality raw materials for industrial at competitive rates, generating demand for industrial goods and services. What is more interesting is the assumptions made by the study to realise the vision<sup>1</sup>.

Nothing prevented successive governments during the last five decades to arrive at meaningful policy document on agricultural sector. Several drafts of agriculture policies were put forth but every time a new government was sworn in, they promised to do something robust and different than the earlier efforts. The same thing cannot be said about the other sectors. For example, Industrial Policy Resolutions were introduced since mid-fifties for promoting industrial growth. Similar examples are there even for sub-sectors having negligible share in the GDP. All these speak volumes on the nature and extent of lack of state initiative towards a comprehensive policy for agriculture.

### **3.1. Sporadic Attempts**

During late eighties a Committee was appointed to look into the problem of agriculture. This Report of the High Power Committee (1990), chaired by Shri Bhanu Pratap Singh made recommendations covering all major sectors of agricultural economy. Following this various policy statements were issued till the Agricultural Policy Document of 2000. Most of the agricultural policy documents came during the decade of Nineties, not so much due to lack of policy, but mostly due to the incessant problems faced by the sector during the decade. The first draft agricultural policy resolution came into being under the Prime Ministership of Shri V. P. Singh, and Shri Sharad Joshi was largely responsible in putting the draft together. The High power committee, under the chairmanship of Shri Bhanu Pratap Singh was constituted during 1990 and the committee provided a full view of agricultural policy. This is one of the comprehensive documents, dealing with agricultural policy in the most of the needed form.

From here a clue was taken by the state of Karnataka, and the policy document was prepared during 1995 for the state is such. To the best of our knowledge, this was the only

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<sup>1</sup> The assumptions are: average annual compound rate of population growth will be 1.6% during 1997 to 2000; labour supply will grow at the rate of 1.85% per annum over this period; growth of work/trade in agriculture products will be substantially higher during the next two decades on account of major changes in international trade environment; seed, feed and wastage constitute 12.5% of the gross output; income elasticity of demand for foodgrains other than coarse cereals is 0.4 and its 0.12 for coarse grains in India

existing policy document at state level for agricultural sector as a whole. Even at that time there was no accepted policy document at the centre, not so much because agriculture is a state subject, but possibly due to the apathy towards the sector. The government under the Prime Ministership of Shri Deve Gowda, prepared a document on agriculture policy during 1999. However, due to the instability of the government the document could never make it to the floor of the house. There was no serious attempt after that, to formulate a policy till the New Agriculture Policy came into being. However, none of these could culminate into a full-fledged policy document for agriculture sector. Therefore, the only first authenticated and hurriedly prepared policy document for agriculture sector is the Agricultural Policy 2000. During the future plan periods it is necessary to keep in view the lessons learnt through this experience. Briefly during the last five decades we have witnessed broadly four important policy directions namely – (i) Food Security, (ii) Institutions for agricultural administration, introduction and dissemination of technology, (iii) Under-developed regions, classes, farmers and crops (iv) Input and technology distribution.

Efforts towards framing the National Agricultural Policy (NAP) were quite intensive during the nineties both due to the pressure from farm lobby and the lately descended realisation that for the last decades after independence we never had one. Finally, it was introduced in the monsoon session of the Lok Sabha in July 2000. Different ministers, bureaucrats and advisers have contributed to shape the present version of the policy document. Needless to add, several researchers and policy makers might have also shared their might behind the screen. In this long sojourn, each driver and his passengers had their own intentions and steered the policy document accordingly. Result is a collation of ideas and ideals of different vintages without a theme or link. This time it was an enviable opportunity to gain from the collective wisdom of professionals, formal and informal organisations working on agriculture and related aspects and put together a cohesive document. Rao aptly summarises it as The difficulty here is that, "Policy maker" refers not to a few identifiable individuals and government bodies but a confusing collage of elites, pressures groups and lobbies each operating with its own agenda not necessarily conforming to the national goals and priorities. The result is chronic inability of the policy makers to read the signs of crisis sufficiently in advance and to deal with them in a systematic manner; the crises he faces are challenging but certainly not beyond our capabilities to handle" (Rao, 1998: 7).

### **3.2. National Agricultural Policy 2000**

As discussed earlier India never had a formal and comprehensive policy on the agriculture in the five decades since independence. Not that there were no pronouncements of policy on agriculture. In fact, there were a quite few: some on land redistribution, some on this or that specific input, infrastructure, on technology. Statements on food situation were plenty; but the policies, or absence thereof, they contain concern supplies for the public distribution systems, and, only incidentally, production and productivity. A policy statement defines the role of agriculture in the overall economy and its development is conspicuously absent (GoI, 1990).

The NAP (2000) seeks to realise by 2020: a) vast untapped growth potential of Indian agriculture; b) strengthen rural infrastructure to support faster agricultural development; c) promote value addition; d) accelerate the growth of agro-business; e) create employment in rural areas; f) secure a fair standard of living for the farmers and agricultural workers and their families; g) discourage migration to urban areas and face the challenges arising out of economic liberalisation and globalisation. The policy aims stated in the document to achieve these are: a) a growth rate of 4 per cent per annum; b) efficient use of natural resources and bio-diversity; c) growth with equity; d) protect from economic liberalisation and globalisation by demand driven growth and catering to domestic markets and maximise agricultural exports; e) environmentally, technologically and economically sustainable growth.

The NAP concentrates on:

- "A Growth rate of excess of 4 per cent per annum in agricultural sector;
- Growth that is based on efficient use of resources and conserves our soil, water, and bio-diversity;
- Growth with equity ie., growth which is widespread across regions and farmers;
- Growth that is demand-driven and caters to domestic markets and maximizes benefits from exports of agricultural projects in the face of the challenges arising from economic liberalization and globalisation;
- Growth that is sustainable technologically, environmentally and economically"

(GoI, NAP 2000: 2).

The rest of the policy document covers nine broad areas viz., sustainable agriculture, food and nutritional security, generation and transfer of technology, inputs management, incentives for agriculture, investments in agriculture, institutional structure, risk management,

and management reforms. In the next section, we have attempted to describe, main features each of these each focus areas along with the promised potential and inadequacies. The method of this review process is indirect and we try to locate the assumptions and actuals in each of the focus areas.

### **3.4 Missing Threads**

A policy is a statement of government's agenda for the sector. However, the elaborated agenda as given in the NAP, should have taken care of current and future challenges of the agricultural sector and its allied activities. It falls short in reflecting the sector's endogenous and exogenous strengths and constraints, which control and steer the sector for the next two decades. The NAP has some incompatibility of its instruments to achieve the goals. For example, the NAP seeks to create better infrastructure for agricultural growth, while the one of the aims indicates protection from liberalisation and globalisation. This may keep farmers away from the mainstream. Mechanisms are not properly designed for implementing the NAP. These mechanisms should have been spelt out, based on the objectives of the NAP.

It is clear. The NAP has not followed some simple steps in evolving a national level policy frame. So, it is design default. The process may include - setting up a core group-review of earlier experience crafting a draft - discussions in regional workshops and in national workshops - inviting comments, putting the draft on web site (like population policy)- revising the draft- sending it for a peer review-getting a group of experts to deliberate on various dimensions of the policy (financial, infrastructure, capacity building and others for the next 20 years)- then finalising it- having a discussion in the Lok Sabha. Many of these steps are not followed at all in evolving the NAP. One of the best, among the available documents, is the high power committee report (Chairman, Bhanu Prathap Singh) in 1990. A comparative analysis of these available documents, dealing with the agricultural policies is given here. Annexure Table 1 provides main thrust areas suggested by various documents during the last ten years.

### **3.5 National Agricultural Policy 2007**

The National Commission on Farmers under the Chairmanship of Professor M.S.Swaminathan submitted five reports covering crucial aspects of the farm sector. Their final report on `National Policy for Farmers' incorporates the main recommendations of the

earlier reports. Government of India accepted it as a new statement of Agricultural Policy 2007. This Policy aims at achieving the proverbial 4 per cent rate of growth of agricultural sector. This puts the task of enhancing the growth rate from the current level of 2.3 per cent per annum. The statement recognizes declining profitability of agricultural sector and blames it directly on the fluctuating world prices of agricultural commodities rather than domestic market inefficiencies. Under a misconceived assumption of integrated domestic market with the world market and ignoring the fact that domestic markets lack any cohesiveness and plagued with utmost imperfections. Even though it sets the socio-economic well-being of the farmers as the prime consideration, the initiatives to reach this goal are not systematically charted out. The Policy has set forth about 15 goals and these begin from economic viability of farmers to the natural resource management, support services, bio-security, prices and trade and more or less every aspect of the farm family. The Policy focuses on asset reforms to empower the farmers and provides good discussion on water management. It promises a 'drought code' (probably a reminiscences of the Famine Code of British era) for identifying major action needed to avert the impact of drought. The Policy also uses a new terminology for management and use of Exclusive Economic Zone (EEZ), for furthering growth.

The Policy places emphasis on launching an 'Evergreen Revolution' for improving productivity on sustainable basis. It also includes discussion on bio resources and the animal genetic resources. This is supplemented by research strategy which is pro-nature, pro-small farmers, and gender sensitive. However, the Policy does not make it clear, how these wide ranging and at times contrasting goals could be achieved. On the input side, the policy promises to improve upon the input delivery system and the input services. Social security including revamping of the system of Minimum Support Prices and Public Distribution System are recorded as some of the strategies in the Policy. It supports farmers' association and SHGs to achieve better results in the post-harvest technology. Finally, the Policy also discusses the sub-categories of the farmers and sub-category farming along with sub-regions, Cooperative Farming, Group Farming, Contract Farming and Farm Companies. But this discussion is too sketchy and does not reveal the policy thrust. Interestingly, the Policy promises to attract the educated youths towards agriculture in future though a number of occasional training courses and similar things. In a nutshell, the Policy reiterates the niches used in the National Agricultural Policy- 2000 with new vocabulary and high-sounding goals. It is quite ambiguous on the instrument side and more than that, does not specifically focus on the regional dimensions of Indian agriculture which are of great importance in this federal system.

#### **4. Federalism and Agricultural Policy**

Globally, intervention in agriculture by different levels of government is well documented, so also in India. This is despite the fact that agriculture is a private activity in its content. But there has been a lack of coordination between the Centre and the States to achieve a well-defined set of policy objectives. There have been mutually inconsistent policies amongst economy - wide macro policies like foreign trade policies, industrial policies on the one hand and agricultural macro policies on the other. These have large and offsetting impacts on agriculture (Srinivasan, 1998).

While determining the role of central governments in formulating agriculture policy, the views of the leaders at the time of independence were of great importance. In a memorandum to the Cabinet during 1947, it was stated that agricultural production policy, price control of agriculture products, the establishment of the Central higher technical institutions, food distribution and then setting up of a twisted emission refer agriculture and industrial development are vital problems and the Central government should take steps to correct these. It was inherently accepted that central government should have an authority of its own to coordinate agricultural production in the country as a whole and play an increasingly active role in the development of both industry and agriculture (Austin, 1966). The objective of the framers of constitution was to make states, primarily and directly responsible of all matters concerning the development of agriculture and rural poor, and at the same time, the Central government owning the responsibility to oversee such arrangements. The powers over agriculture, and the responsibility for its development, were thus ambiguously divided between the centre and the state. This exercise was quite fragile as the Federal inaction in its own spear can render the policy ineffective, either by the state or by the centre. No wonder, neither the states nor the centre could formulate and agriculture policy of longstanding.

The functions directly undertaken by the Central government and the functions that it coordinates may be listed as below:

- Providing financial assistance to the states for their agricultural plans through grants and loans.
- Overall planning and coronation of agricultural development in the country; coordinating state agricultural plans; assuring the efficient implementation of development plans; and their evaluation.

- Providing technical assistance to the states in planning and executing agricultural programmes.
- Assisting the states in securing the requirements of agricultural inputs such as pure seeds, imprudent amends, but rises and pesticides in adequate quantity and timely supply.
- Providing credit; assisting the states in organising marketing storage and transport facilities;
- Price stabilisation; enforcing incorporation with the States minimum and maximum prices for agriculture produce; regulating interstate trade and movements of the commodities;
- Laying down import and export policies in respect of agricultural requisites and products;
- Providing cooperation to the states for betterment of extension services to the farmers;
- Coordinating programmes of land use and development; soil conservation and utilisation of water sources;
- Fundamental and applied research on agriculture, better sciences, agricultural economics, fisheries, Home science and nutritional problems;
- Maintaining the standards of higher education in all agricultural sciences;
- The administration of external assistance in the agricultural sector.

Agricultural plans of the states are not built from below, but it is often claimed as that. There is hardly any consultation either with the Panchayati Raj bodies, or farming interests and farmers bodies. Mostly it is the Department officials who prepare the plans and these are usually the step up plans with little innovative approach. Even within the Agriculture Department there is hardly any machinery that can monitor the policy goals and exercise online corrections. Usually the plans are made at the headquarters, broken into district segments and latter in turn split into local plans. The idea of farm plans, built in the villages culminating into block level, district level, and finally states level plans, has never been practiced, and possibly may not be practiced even after introduction of Article 243 of the Constitution of India. The states are hardly expected to plan realistically keeping in view their constraints and opportunities, and consultation down with the district or other tiers of governance is clearly a distant dream.

## **5..Agricultural Policy An Experience of Five Decades**

The plan documents over the last five decades made it quite clear that policy for agricultural sector is of prime importance to the plan and the steps taken could be seen from the table 1.1. One expects a significant shift in the strategy during tenth plan. Keeping with this expectation the Approach Paper to the Tenth Plan makes it clear that *"First, agricultural development must be viewed as a core element of the Plan since growth in this sector is likely to lead to the widest spread of benefits, especially to the rural poor including agricultural labour. Also, since the majority of women workers are engaged in agriculture, investments in this sector have enormous implications for gender equality and must be designed to have maximal impact on this dimension. The first generation of reforms concentrated on reforms in the industrial economy and reforms in the agricultural sector were neglected. This must change in the Tenth Plan"*(Approach Paper to the Tenth Five Year Plan, GoI 2001).

From the First Plan onwards, the plan documents are replete with ideas and objectives towards agricultural sector. In the process of planned development we have achieved significant strides in the sector but the experience of the earlier plans rarely becomes a background for the policy. During the last three plans the planning process has been revitalised incorporating specific working groups, drawing on the experience of the experts and circulation of the drafts for discussions. It is interesting that the First Five Year

**Table 1: Agricultural Policy formulation through Five-Year Plans**

<b>Plan Period</b>	<b>Major Issues and Policy Thrust</b>
First Plan 1951-56	Severe food availability constraints. Maximisation of Agricultural Production. Making Food available to masses. Food distribution network. Nationwide Community Development (CD) Programme Institutions for village development. National Extension and Community Projects Skewed Land Distribution, Inefficiency in Production and thus land reforms - Abolition of intermediaries. Bringing the fallow lands under cultivation and increase in land use efficiency. Tenants to be given the rights to cultivate land.
Second Plan 1956-61	Concern about low land productivity and thrust on irrigated agriculture. Irrigation Development for the rainfed areas. Land Reforms Enactment of laws. Tenancy Reforms & Ceiling on Holdings. Soil conservation as an important programme. Co-operative Development Institutions, National Extension Service Blocks created. Training and Extension work for the technology through Community Development network.
Third Plan 1961-66	Food security concerns continued to dominate. Technological Change and adoption of improved technology to increase land productivity. Cultivable waste land to be brought under cultivation. Brining the lagging regions under mainstream growth. Area development as an approach for development. Intensive Area Development Programme adopted for selected districts. Extension of non-agricultural activities in Rural areas. An integrated land policy approach. Soil Surveys were taken up.

Fourth Plan 1969-74	Emphasis on food security continued as minimum dietary requirements to be met. Deep concern about Poverty. Regional inequality and correction of regional imbalances. Incentives created for diversion of land towards food crops and enhancing the capacity of such land. Increased emphasis on irrigation and soil conservation in dry-land regions and technological change introduced. Higher cropping intensity was the concern. Emergence of Agri. Price Policy. Concern about domination of large holding sizes and low allocative and technical efficiency. Second phase of land reforms with land ceiling acts and consolidation of holding. Encouragement to co-operatives. Institutional changes in Credit, Agri extension and training.
Fifth Plan 1974-79	Twenty point economic programme. Concern to eradicate poverty intensified. Area Development strategy continued. Drought prone areas attracted attention. Allocation on Drought-prone area development programme, Desert area development programmes, and soil conservation was enhanced. New impetus to dry farming. Problems of land degradation land management in irrigated command areas surfaced. Modernisation of irrigation in selected irrigation command areas.
Sixth Plan 1980-85	Minimum Needs Programme. Providing clean drinking water, elementary education and basic health facilities. Larger attention to unemployment and under-employment. Target group specific programmes for poverty alleviation. IRDP, NREP and RLEGP Programmes were undertaken for employment and income generation. Under-utilisation of land resources. Drought-prone areas continued to attract attention. Further attention for lagging areas on the backdrop of green revolution. Land and water management programme under drought-prone area programme in selected districts.
Seventh Plan 1985-90	Direct attack on poverty, unemployment and regional imbalances continued. Soil erosion and land degradation surfaced as major issues. Larger share of land was going out of cultivation. Soil and Water Conservation was needed for averting land degradation. National Watershed Development Programme, Oilseed and Pulses Development Programmes, Wasteland Development Programmes, and Long term view of land management was initiated.
Eighth Plan 1992-97	Priority for Employment Generation, Strengthening of Infrastructure, Liberalisation and Globalisation in Agricultural Sector. Trade Sector Priorities by Generating Surplus of agricultural commodities for exports. Emphasis on Oilseed Sector increased. Agro-climatic regional planning approach was incorporated. Productivity enhancement Schemes. Horticulture Sector to be encouraged. Degradation of land in Irrigated command areas attracted attention. Peoples' participation surfaced as major issue in land management at village level. Emphasis on Watershed Development approach. Soil conservation merged with watershed programmes.
Ninth Plan 1997-2002	Priority to agricultural sector. Generating adequate productive employment through employment assurance. Renewed assault on poverty, Accelerating growth with stable prices, Food and nutritional security for vulnerable sections, Providing basic needs for environmental sustainability, Growth with social justice and equity, Foreign trade to be tailored for accelerating growth, Boost to agricultural research, Development of infrastructure and increasing investment in infrastructure, Export oriented growth and Emphasis on Horticultural Crops for exports. Land degradation increased significantly. Integrating Watershed Development Programme across various components. Rethinking on land reforms. Gap between potentials and actual crop yields need to be bridged. Need for a long term policy document. Bringing the under-utilised land under cultivation. Management of waste lands. Maintenance of village commons. Decentralised land management system. <i>Panchayat raj</i> institutions to manage the village lands. Rethinking on land legislation
Tenth Plan 2002-2007	Creation of employment; Improving pace of growth in agriculture; Sustaining demand for labour; Employment Generation programmer to concentrate in Diversification of Agriculture and Agro Processing; Land use policy; Process oriented programmes focussing on poor; Universalisation of Joint Forest Management or macro management approach; precision farming; Organic farming; wastelands to be brought under economic use; strengthening R and D for slow growth crops.

Source: From various plan documents. These are however not exhaustive statements but only indicative of the thrust.

Plan emphasised organisation of agriculture through a continuous extension process and the community development programme was the instrument. The development philosophy underlying this was to involve participation from below starting at the grass root. Opening paragraph of the approach to Ninth Plan reiterates our commitment accepting little achievement in the direction. Plan documents and successive appraisal reports stand in the testimony of our riverine policy (flowing like a river directed by mountainous constraints and flows of successes in terms of streams). It is during the Seventh Plan that a medium term development perspective was evolved (GOI, 1985, p.8). The aim was to create, by the year 2000, the conditions for self-sustaining growth in terms of both the capacity to finance internally and the development of technology. The perspective plan for agriculture documented in Seventh Plan emphasised on self-sufficiency, employment, technology, extension and bypassed regions (rainfed agriculture) (GOI, 1985, p.15). The emphasis was continued through Eighth Plan. But in response to the NEP and liberalisation Ninth Plan had set the market participation and trade sector as the main diversions.

Over the last five decades we have learnt a good number of lessons in our planning exercise and appraisals of the plan programmes. Objectives have more or less stayed the same and revolved around – poverty reduction, empowering poor sections, self-sufficiency and assimilating by-passed regions and groups. But the instruments to achieve these have significantly changed. These together give varied choice and rich experience in framing policies.

## **6. Working Towards a Policy**

This study begins with the premise that any attempt to frame agricultural policy must begin at the State level and there too constructed from below. Essentially such exercise requires basic understanding at the State level and discussions with the stakeholders that include: Policy Makers, Administrators, Farmer Leaders, Farmers, Traders and researchers in the field. As indicated above the discussions were format free and were directed more towards finding out the Strengths, Weaknesses, Opportunities and Threats. These were to be located from the standpoint of the concerned State and not in the Centralised perspective. Thirteen state reports could be collected over a period of three years to put this consolidated report together. These include: Punjab; Himachal Pradesh; Andhra Pradesh; Karnataka; Maharashtra; Madhya Pradesh; Gujarat; Rajasthan; Assam; Bihar and Uttar Pradesh. Despite

repeated reminders Haryana and West Bengal could not submit their reports. These are certainly notable exceptions.

Analytical understanding required putting the states into policy groups based on the inherent current indicated in the documents. The first group of States includes the fore runners in the context of new economic structure with marketisation as the leading growth initiative. Punjab as a state had always been on the forefront of development even during the British rule (Blyn, 1966). Recent trends in Punjab agriculture have clearly indicated preference of the farmers towards diversification towards commercial crops (Bhalla and Singh, 2001; Bhalla, 2004). The farmers of Punjab have adopted paddy (Basmati and other export friendly varieties) as one of the major crops deviating from the traditional cropping pattern. Similar is the case of Haryana, where farmers prefer cash crop oriented cropping pattern. The third state falling in this category is Himachal Pradesh, not so much by the shift in the decision making process of the farmer but largely due to the agro-climatic conditions and the traditional cropping Pattern. Fruit crop growers of Himachal Pradesh have taken up the challenge to confront the fruits entering in India from other countries.

The second group of states includes the states, which did not enjoy the prime position in leading agricultural development of the country prior to Green Revolution (1966-67), but have come up after successfully negotiating with the major agro-climatic constraints and placed themselves in leading the agricultural growth scenario of the country. This group includes Andhra Pradesh, Karnataka, Gujarat and Rajasthan. Among these four states, Andhra Pradesh and Karnataka have already made a place in the international trade scene by diversifying into trade-oriented crops, whereas, Gujarat and Rajasthan have been successful in encashing the opportunity by relying upon the traditional rainfed crops.

Assam has a unique position as an eastern state and that fits well with West Bengal. It is finding the most needed growth initiative by diversifying into market-oriented crops. Bihar and Uttar Pradesh are the proverbial low productivity states and to strive hard to come out of the low productivity trap. These states have extremely good potential for development and thus the objective in these states have to overcome these constraints forcing its agricultural sector to low productivity.

The basic features pertaining to agricultural sectors of the states are given in table 1.3. One can easily observe four emerging groups from this table based on a cross

classification of natural resource position and state-led agricultural development efforts (See table 1.2).

**Table 2: Cross classification of the selected States**

	<b>Naturally Well Endowed Regions</b>	<b>Regions Not so Well Endowed in natural Resources</b>
<b>Significant State led Development Efforts</b>	Punjab, Haryana, Western Uttar Pradesh, Tamilnadu, Kerala, Himachal Pradesh	Gujarath, Northern Rajasthan, Andhra; Western Maharashtra, South Karnataka
<b>Lacking in Development efforts</b>	Assam, West Bengal, Orissa, North Bihar, North-Eastern States,	Southern Rajasthan, Northern Karnataka, Central Maharashtra, Rayalseema (AP), South Bihar

First group of states are those, which are naturally well endowed, as well as the state initiated development efforts have put them well ahead in the growth. These states are depicting strong emergence of diversification towards commercial cropping pattern. These states also show better irrigation facilities and higher rates of growth. These have recorded higher cropping intensity and a clear shift away from traditional crop pattern to the crop combination suitable for the new technology. Therefore, in all ways these are the leaders in the growth process till now. This group includes Punjab, Haryana, Kerala, Himachal Pradesh, Uttar Pradesh and Tamilnadu. The second group of states is the well-placed region in terms of natural resource endowments but could not take advantage of this vantage position due to failure of well-directed development efforts. Hence these states/regions could not record on the count of growth performance. This group includes Bihar, Orissa, Assam, West Bengal, and Madhya Pradesh The third group includes the states with significant natural resource constraints but still performing better under the shadow of such threat. These regions or States could record respectable growth rates and therefore need to be encouraged to step up further. These include Gujarath, Andhra Pradesh, Karnataka, and parts of Madhya Pradesh, along with parts of Andhra Pradesh (Coastal Andhra), Maharashtra (Western Maharashtra), Rajasthan (Northern Rajasthan). The fourth group of states includes the regions not so well endowed with natural resources, as well as lacking in state led developmental efforts. These include. Southern Rajasthan, Northern Karnataka, Central Maharashtra, Rayalseema (AP), South Bihar. One of the important characteristics of this group is the natural constraints that it faces. Some of the regions have been successful in overcoming such constraints. But a good amount of investment is required in order to circumvent these constraints and provide opportunities across sectors for the purpose of development. It's only a deliberate and well-planned agriculture policy, which can get this implemented

**Table 3: Basic Performance of Agriculture in the States Selected**

States	Overall Performance in Agriculture
Andhra Pradesh	The agricultural growth rate was witnessing sharp acceleration throughout the 60s and 70s except for a slight deceleration during 80s. Along with the Net Sown Area the area under foodgrains, especially that of coarse cereals, continuously declined. On the other hand, area under commercial crops like groundnut and sunflower were on the rise. The state has high levels of area under irrigation and the fertiliser use has been increasing tremendously.
Assam	Both the growth in agriculture and that of the cropped area were reasonably high until the 80s after which a thorough deceleration is experienced. But, the productivity levels had been at moderate levels and the use of modern inputs had also been on the increase at moderate levels.
Bihar	Until the 80s, agri and productivity growth rates had been stagnating with a slight acceleration effect during 80s. The Net Sown Area had been declining after the 70s and infact, negative throughout with slight decreases in cropping intensity. The use of modern inputs in particular, the fertiliser consumption increased tremendously.
Gujarat	Agriculture witnessed a positive but low growth rate on the whole with moderately high growth rate of productivity. The extension of Wheat and Rice technology increased growth and productivity substantially during 70s but for a stagnation during 80s owing to the persistent droughts. The Net Sown Area declined continuously in the 80s with a moderate increase in cropping intensity. Coarse cereals like rice and wheat, which dominated the cropping pattern during 70s, gave way to oilseeds during the 80s recording a decline in the area under coarse cereals. The fertiliser use increased considerably.
Haryana	The agricultural economy recorded very high rates of growth in general owing to the confinement of the new wheat technology only to the irrigated areas. The growth rate in Net Sown Area went negative during the 80s while increases in cropping intensity were seen. The state has high percentage of irrigated area. The area under foodgrains declined sharply and the oilseeds were gaining importance in the region with a significant increase in their area. The rate of mechanisation is also high in the state.
Himachal Pradesh	Agriculture growth in the state has been stagnating during the 70s after which there was a spurt in growth during the 80s while maintaining moderately high growth rates in the productivity levels. The cropped area had been declining continuously after the 70s to witness a negative growth in the 80s leaving the NSA more or less the same. The area under foodgrains remained almost the same with a shift in the cropping pattern to rice, wheat, cotton and sugarcane. The use of modern inputs had been minimal except for an increase in the use of fertilisers.
Karnataka	A medium to high growth rate was attained in the agri-sector all through the period also recording very high growth rate in yield, in general. The growth in cropped area has been increasing right from the 70s, primarily because of changes in rainfall and remained reasonably high even during the 80s. The area under foodgrains, especially coarse cereals, declined with a shift towards oil-seeds and sunflower. There has been a tremendous increase in the use of pumpsets and fertiliser consumption.
Madhya Pradesh	Growth in agriculture sector gained momentum after the 80s and hence a positive but low growth rate was recorded both in the overall and productivity growth rates all through the period. The growth in the cropped area in the state remained reasonably high even during the 80s. The area under coarse cereals declined greatly while the area under oil-seeds, especially soyabean, increased. The use of modern inputs was very high in the state with special reference to the fertiliser use.
Maharashtra	Wide fluctuations were experienced in the growth of the agri-sector leaping from a negative growth in the 60s to a very high growth in the 70s and further a deceleration during the 80s owing to persistent droughts in the late 80s. Primarily, a higher growth rate occurred in the cropped area and later the 80s witnessed a decline. A decline in area under coarse cereals took place with a shift to oil-seeds

	especially sunflower. The use of all modern inputs was on the rise.
Rajasthan	The state has been experiencing stagnation in agriculture during the 70s. Otherwise, very high growth rates in agriculture and its yield were recorded. Primarily, because of changes in rainfall, the cropped area grew at a moderately high rate with a moderate increase in cropping intensity too. The area under irrigation was more than doubled. There has been a considerable decline in the area under coarse cereals and a shift to oil-seeds – repeseed and mustard was seen. The use of fertilisers shot up tremendously along with the increase in the usage of tractors and pumpsets.
Uttar Pradesh	High growth rates were experienced right from the 60s with moderately high growth rates in yield, as the state had been a beneficiary of the new technology right from the start. The cropped area declined severely to become negative during the 80s with the cropping intensity increasing throughout. There has been a considerable increase in the area under irrigation along with tremendous increases in the use of modern inputs. With a very sharp increase in area under rice the area under foodgrains has been increasing continuously while area under oil-seeds registering a decline.
West Bengal	Owing to the benefits of the Wheat Revolution higher growth rates were recorded in agriculture in the initial period but for a severe decline in the 70s. The performance was creditable in the 80s with a spurt in output to unprecedented levels. Area under crops grew at a moderate rate, with the introduction of HYV wheat facilitating an increase in intensity of cultivation, and later remained at reasonably higher growth rates. But, the NSA showed a negative rate during the 80s. Higher use of modern inputs and higher levels of area under irrigation were recorded. Wheat dominated the cropping pattern during the initial stages at the cost of pulses. After 80s the area under oil-seeds also saw a rise.

Source: Bhalla, G S and Gurmail Singh (2001)

### 1.7. Focus

Policy can be considered as a response of the government indicating its position on an area of significant concern to a political and administrative system. Such sectors are of course connected with the other segments of the economy and more than that with the polity, bureaucracy and the outside pressure groups. Inter-relatedness of policies and their outcomes therefore cannot be fully explored *a priori* but their probable direction of impact can be visualized. Hence the study of policy making will require understanding of the institutional dynamics and case studies in order to analyze the emergence of the situation and the resolution of possible conflicts in goals. One of the important points of discord and subsequent resolutions is the understanding between the Central and the state governments, even keeping aside the other important players for a moment. According to the Indian constitution, agriculture is in the State list but many facets of the sector are either in the central list or under the concurrent list. Even being on the state list, the policies pertaining to agriculture are mostly initiated at the Center, sometime after consultation with the state. The only way of handling such a tricky issue is to understand the policy matrix through revealed juxtaposition.

Therefore, an attempt was made to formulate policy for agricultural sector with active participation of the players at the state level was made (Deshpande, 2006). Among the important interest groups we included the polity, administrators, bankers, farm leaders, academicians, processors and traders, agricultural labor unions, NGOs engaged in agriculture and rural development activities, and other stakeholders. It was felt necessary that the policy statement emerge out of the felt needs and resource availability at these locales. Such policy statement will emerge, as a matrix having the states on one axis and the felt needs on the other. The cells will speak about the type of initiatives needed for handling the underlying issues. We have also attempted a SWOT analysis in the context of the states.

First, description of agricultural policy scenario at the State level in general and identification of State level concerns and priorities in the pre-WTO era second, enlisting of the State's reactions and responses to the country's obligations to meet; the WTO requirements and the emerging constraints in the current global scenario. These are being dealt in this study whereas, the State's desired response to the emerging challenges (due to WTO or otherwise) Although many of the underlying issues will come for discussion in almost all stages, in order to have clarity in understanding of the problems and subsequent presentation of the document, an attempt may nevertheless be made to undertake as far as possible the above-stated three components of the study in three successive stages, beginning with the first.

The methodology for the study involves a thematic review of the existing material at both international level (to see through review of mainly website literature by the two coordinating centers how at least some of the important and major players from Indian viewpoint like the EU, the USA, Canada, Australia, Brazil/Argentina, China, Japan, Israel, Thailand/Malaysia are repositioning themselves) and State level (to be reviewed by the AER Centers) and interview with the stakeholders (also to be conducted by the AER Centers) on crucial issues. The State level exercise should take into consideration the documents prepared by the Agro-climatic Regional Planning groups across various states as well as strategy papers prepared by some of the state governments in response to WTO or otherwise. Plan documents both at Center and State level should be reviewed. However, the intention here is to go beyond that in terms of preparing a policy document, as prevailing at the current moment, irrespective of the fact whether such policies or explicitly stated or not. The expected output from the first two stages of this exercise will be a systematic policy document for the concerned State. Although interaction with important stakeholders of State agriculture would be useful to get access to prevailing and pre-existing documents and thus to bring out

the current policy status during the first two stages of the study, such interaction would be of crucial importance during the third and last stage of this exercise. Obviously, the spirit of this interaction would be positivist (i.e., to bring out the prevailing factual position without any ideological or normative preoccupation) during the first two stages, while it has to be essentially normative in nature (i.e., to bring out the desirable features as per the wishes and aspirations of various stakeholders) during the last stage. Naturally, the AER Centers conducting this exercise would be applying logical introspection and analytical skills to present the findings in a systematic, consistent and coherent structure. Conflicts in desired policy changes across stakeholder groups would be an essential feature, which the study should bring out together with feasible prescriptive measures to resolve those conflicts.

Looking into the experience of agricultural development across the states, one can broadly group the states into six groups. We follow these broad groups for the purpose of our analysis.

Groups	Names of States
Towards High Commercialisation	Punjab, Haryana and Himachal Pradesh
Diversifying for Trade	Andhra Pradesh, Karnataka and Tamil Nadu
Infrastructure for Take-off in Trade	Maharashtra and Madhya Pradesh
Encashing on Rainfed Crops	Gujarath and Rajasthan
Need for Diversification	Assam and West Bengal
Evading Low Productivity Trap	Bihar and Uttar Pradesh

These groups indicate the force of development in the context of the forces of liberalisation prevailing in these states. The States of Punjab, Haryana and Himachal Pradesh, have a better promise of growth ahead growth and it is essential that these states carefully transform themselves into pockets of commercial agriculture through policy initiatives, in order to participate positively and effectively in international trade. Punjab and Haryana have a significant natural advantage in growing food commodities and pulses as well as oilseeds, whereas Himachal Pradesh is known for its horticultural produce. Our analysis focuses on the strong points of these three States. The States of Andhra Pradesh, Karnataka and Tamil Nadu are traditionally foodgrain growing states It would be prudent now that some diversification takes place towards trade-oriented crops in some selected pockets in these States. Our attempt is to locate such pockets and indicate the crops and crop groups for the purpose of development. In Central India, Maharashtra and Madhya Pradesh are still to come out of the constraints of the inadequate and low level infrastructure and public investment. The domination of food commodities in the cropping pattern of these two States is quite visible. It

would be necessary to set a take-off stage in these States through better infrastructure and focusing on comparative advantages. As we have seen historically, Rajasthan and Gujarat are the major rainfed regions of India and these also have large portions under desert conditions. These would require a totally different strategy to deal with and that should be focused on negotiating the capabilities of rainfed crops as well as other allied agricultural activities. Livestock development is one of these activities and could be considered as an alternative here. Far Eastern states of Assam and West Bengal remained out of the main stream growth for a long time. It is only after the implementation of the S.R.Sen Committee Report, that these two states have shown signs of resurgence. With the abundance of natural resources, it will be essential to inject a proper incentive structure to provoke diversification towards high value crops and increase the productivity on the base of technology. The sixth group of States consists of Bihar and Uttar Pradesh, which are trapped in the low value-low productivity trap and that needs to be sorted out through proper policy change. Given this broad framework, we intend to analyse the state level reports keeping these frame analysis in mind.

**Table1.3: Weak Spots and the Strong Initiatives in the States Selected**

<b>States</b>	<b>Weak Spots</b>	<b>Strong Initiatives</b>
<b>Andhra Pradesh</b>	Inefficient management of the available land and water resources; Frequent occurrence of droughts, cyclones and floods; Non-regulated cropping pattern; Untapped yield potential; Precarious power supply; Lack of infrastructure; Large number of small holdings	Varied agro-climatic zones and different types of soil conducive for growing a variety of crops; Comparative advantage in the export of horticultural, animal and fish products; High scope for large-scale commercial production; Large coastline enabling trade.
<b>Assam</b>	Geographical isolation; Problems of excessive water-logging, recurrent floods and soil erosion; Sinking land-man-ratio; Acidic soils; Predominance of small and scattered holdings; Non Adoption of HYV seeds; Lack of infrastructure; Lack of data base.	Abundant water and forest resources; Rich in mineral resources; good export potential for exports of tea – a major earner of foreign exchange.
<b>Bihar</b>	Frequent visit of floods and droughts; Wide regional variations between plains and plateau regions; Very large proportion of smallholdings and tribal population; Low crop productivity and per agricultural worker productivity; Low proportion of irrigated area.	Richly endowed with ground and surface water resources and hence vast irrigation potential; Rich fertile land; Abundant manpower.
<b>Gujarat</b>	Poor rainfall and a high proportion of arid and semi-arid area; High percent of drought prone area; Salinity; Water-logging; Low value addition; Increasing real cost of production; High variability in the productivity growth of few major crops; Inefficient use of natural resources.	High labour and land productivity and Net Sown Area; Average land holdings; High irrigation potential.
<b>Haryana</b>	Decline in availability of cultivable land; Intensive cultivation leading to decline in soil fertility; Declining size of holdings; Falling groundwater tables; Inefficient use of irrigation water; Comparatively low land productivity; No proper diversification of agriculture; Insufficient power supply	High NSA and Irrigation development; Considerably high cropping intensity and yield levels; High mechanization of agriculture and agricultural labour productivity; Developed marketing infrastructure and other infrastructure like electrification and roads

<b>Himachal Pradesh</b>	High population pressure on land; Terrain is rough and adverse to farming; Farming on steep slopes suffers heavy soil erosion; Overgrazing and deforestation on a large scale; Inefficient land use; Limited irrigation and it is in deep gorges with very high lifting costs; Low productivity levels; Meagre infrastructure facilities; Rapid fragmentation of holdings	Climatic conditions provide vast potential for the development of horticultural crops and for the production of off-season vegetables, ginger, potato, tea and maize; Sufficient rainfall and hence vast hydro-electric potential
<b>Karnataka</b>	Large share of drought-prone areas; Dependence on rainfed agriculture; Underdeveloped irrigation facilities; Predominance of low value millets in cropping pattern; Fragmentation of size of holding; Complete ban on leasing of land; Denudation of forests and tank irrigation; Land going out of agriculture; Land records; Low income generation for farmers	Vast resources of land, forests, minerals and water; Active participation in international trade; Strong currents of decentralisation; Committed bureaucracy; Emerging sectors of horticulture, floriculture, food processing; Strong forward and backward linkages in sericulture; Strong emergence of bio-technology sector; Precision farming
<b>Madhya Pradesh</b>	Undulated topography coupled with deep rivers result in acute soil erosion and run off water; Increasing pressure on land and natural resources; Under-developed irrigation potential and low groundwater utilization; Large proportion of rainfed agriculture; Low value crops with low productivity; Large wastelands; Practice of <i>karif</i> fallows; Poor availability of electricity and infrastructural facilities	Large rainfed areas; Possess a network of rivers; Mega diversified agro-climatic zones promotes the growing of numerous crops and crop groups; Vast scope for diversification of agriculture through proper utilization of waste lands; Highest area and production in oilseeds and pulses; Rich in bio-diversity and human resources; Low consumption of agro-chemicals, hence producing quality organic products of great export potential
<b>Maharashtra</b>	Low and erratic rainfall pattern; Low irrigation facility and its improper distribution among crops; Cultivation predominantly under rainfed conditions; Predominant cultivation of low value crops and low productivity; Mono-cropping pattern; Low progress in watershed development programmes; Wide regional variations in agricultural development; Poor marketing and post- harvesting facilities	Possesses a network of rivers; Major part of the state lies in the rain shadow region; Substantial irrigation development has taken place, Horticultural development and post harvest technology on growth path
<b>Punjab</b>	Large number of small and marginal farmers; Geographical location is far-off from seashores; Bleak non-farm employment opportunities; Farmers highly indebted; Inadequate marketing infrastructure for horticultural crops; Declining public investments; Very low forest cover; Practice of monoculture	Hardworking, enterprising and innovative peasantry; Large proportion of cropped area and with a high irrigation percentage; High productivity levels and contribution of a very high percent to the central pool of foodgrains reserve; Easy access to markets with developed infrastructure; High irrigation development; Vast scope for pisciculture
<b>Rajasthan</b>	Rainfall is highly inadequate and irregular; large per cent of area lies in arid and semi-arid tracts; Saline and alkaline soils; Limited availability of groundwater; High temperature and high wind velocity hampers crop production; Inadequate power supply; Lack of post-harvest marketing and processing infrastructure; Predominance of mono-cropping	Allied agricultural sector, Water user associations and water conservation measures, Rejuvenation of traditional technologies
<b>Uttar Pradesh</b>	Small size of holdings; Maximum area under ravines and water-logged; High input price; High groundwater depletion and higher erosion and degradation of land; Poor marketing accessibility; Non-availability of proper storage facilities; Low cropping intensity; High disguised unemployment; Frequent possibilities of floods, droughts and other natural calamities; Low mechanisation and skilled labour	Varied agro-climatic zones facilitates growing different crops; Soil texture and structure vary favourable for crops; Ample availability of surface and groundwater; High bio-diversity; Adequate rainfall; Sufficient availability of labour force; Well-developed transport facilities; Irrigation and marketing networks are well-developed and delivery

<b>West Bengal</b>	Rainfall balance is erratic and scattered; Frequent floods and droughts; High population density; Improper soil and water conservation; Unrealized potentiality of higher outputs; Large proportion of marginal and small farmers; Climatic plasticity enabling non-cereal high value crops has not received attention	of inputs are well-managed High rainfall; Varied agro-climatic zones; Larger reserves of groundwater; Vast scope for pisciculture
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**Annexure Table 1.1: A Comparative Analysis of the Agricultural Policy Documents**

Parameters	Memorandum by H.D.Deve Gowda <sup>2</sup> , 1999	Draft Agricultural Policy Resolution <sup>3</sup> , 1990 (for India)	Strategic Plan for Indian Agricultural Sector <sup>4</sup> , 1998	Agriculture Policy Resolution by Karnataka <sup>5</sup> , 1995	National Agricultural Policy <sup>6</sup> , 2000	High Power Committee Report <sup>7</sup> , 1990
1	2	3	4	5	6	7
1. Resources- land, water, labour, technology, risk and natural hazards	Better utilisation of natural resources, stress on dryland farming, promote cost-effective minor irrigation works and pressure irrigation (drip and sprinkler)	Efficient management of land and water resources and conservation of natural resources. Dryland farming, creation of jobs, better utilisation of irrigation resources	Increase the area under irrigation, transfer irrigation management to corporate sector, HYV seeds for dryland farming, increase yield rates,	Necessary amendments for land act to facilitate expansion of sunrise industries, fisheries, and others. Increase irrigation water fees.	Promote technically sound, economically viable, environmentally non-degrading, and socially acceptable use of country's natural resources. Development of rainfed and irrigated lands, evolve national livestock breeding strategy, & genetic upgradation of indigenous/native cattle, efforts towards food security, National Agriculture Insurance Scheme to protect from natural calamities and price fluctuations.	Natural resources should be guarded against abuse and misuse, and ensure their upgradation. New techniques of production should be financially viable. More stress on dryland farming. Increase support for minor irrigation works (groundwater and tanks) and micro-irrigation, and increase their efficiency, and emphasis on backward regions.
2. Linkages, Infrastructure, Supportive mechanism, Safety net, Attending to specific problems, Regional imbalance	Efficient use of extension and training methods, schemes & programmes for small and marginal farmers, support allied activities (livestock, fisheries), improve quality of rural life, encourage direct producer-consumer links, PDS to mainly support poor	Provide for agriculture and allied activities, profitable technology, extension service, input support, incentive process & processing facilities. Incentive price policies and efficient price support mechanisms. Agro-processing facilities in rural areas, farming systems approach	Encourage regional specialisation, develop appropriate HYV seeds, adoption of new technology by farmers, making new technology more viable to farmers,	Establishment of new rural financial institutions, on the line on NABARD to supplement the credit operations of the existing institutions. Restructure extension system. Adopt ACRP approach to reduce regional imbalances.	Promote allied activities to generate rural employment, stress on sun-rise sectors, generate and disseminate appropriate technology for agriculture and allied activities of livestock and fisheries, evolve location-specific and economically viable options in various sectors, regionalisation of agricultural research. Inputs management, priority for rural electrification, stress on market infrastructure and forward linkages, promote micro-credit and self help group-banking linkage system, popularise and support renewable sources of energy.	Safeguard the purchasing power of farmers, and not merely reimbursement of their cost of production. Encourage and enable to create direct producer-consumer links. Public distribution of foodgrains restructured to provide freedom to farmers to participate from process-transport-sales anywhere in the country. PDS should help genuinely poor. In designing schemes and programmes, stress on marginal and small farmers. Reorient research and extension to cater to small farmers. More stress on allied activities.
3. Institutions, Governance, Agricultural Administration, Preparedness for new trends, &	Enforce land ceiling laws, consolidation of land holdings, Promote Participatory	Development of appropriate institutional infrastructure to enable production for domestic consumption and export. Strengthen institutional infrastructure for a creative	Long-term political commitment to the vision, mission and goals, shared vision and cooperation from all state governments, efficient	Encourage ACRP approach for planning agriculture development with emphasis on planning from below. Activate district	Application of frontier sciences, strengthen research and extension linkages, encourage KVKs, NGOs, and user organisations, corporate sector, commodity-wise strategies and arrangements for protecting the grower	Improve human resource base by providing necessary knowledge, skills and attitudes, improve quality of life in rural areas. Enforce land ceiling laws & consolidate holdings. Review share-croppers role. Involve users in

<sup>2</sup> Imperatives for Agricultural and Rural Development in India. A memorandum submitted to Prime Minister of India by H.D.Deve Gowda, Former Prime Minister of India on 17 February, 1999.

<sup>3</sup> Draft Agricultural Policy Resolution, 1990. Prepared by the Ministry of Agriculture, Government of India.

<sup>4</sup> Strategic Plan for Indian Agricultural Sector, ASSOCHAM, New Delhi. July, 1998.

<sup>5</sup> Karnataka Agriculture Policy Resolution, 1995. Government of Karnataka.

<sup>6</sup> National Agricultural Policy, 2000. Ministry of Agriculture, Government of India, July 2000.

<sup>7</sup> Report of the High Powered Committee on Review of Agricultural Policies and Programmes. 1990. Ministry of Agriculture, Government of India.

challenges, Capacity building, Role clarity (central and state govt, users, corporate)	irrigation management, Krushi Vignana Kendras at district level, set up National Academy of Agricultural Administration, focus on capacity building	partnership between central and state, and between state & local bodies & farmers. Land reforms, & consolidation of land holdings. Increase exports of both traditional & non-traditional commodities, programme for the landless, research in frontier sciences, reorientation of extension system. State and central govts to be partners, involvement of NGOs, role of panchayat raj institutions, research to be small holder oriented	bureaucracy, corporate sector participation, effective coordination among various levels of implementing agencies.	planning boards.	from liberalisation and globalisation, consolidation of land holdings, redistribution of surplus lands and waste lands among landless, tenancy reforms, development of lease markets for increasing holding size and for agri-business, recognition of women's rights in land, promote private sector participation and contract farming and land leasing arrangements, progressive institutionalisation of rural and farm credit, revamp cooperatives, policy initiatives for reforms in agriculture management by the central and state govts, centre to move towards macro-management and role do advocacy, and facilitation.	irrigation management and developmental projects. Focus on small and marginal farmers for all demonstration effects. Stress on farmers training and revive farmers training centres. Establish districtwise <i>Krushu Vignana Kendras</i> and rejuvenate them. Set up National Academy of Agricultural Administration to upgrade knowledge and skills of personnel of agriculture and allied fields.
4. Performance Monitoring, Data base, Information system, Efficiency, Policy feed back process				Launch separate TV channel for dissemination of information on agricultural activities - include market/price information.	Upgradation and dissemination of market intelligence, strengthen database and ensure greater reliability of estimates and forecasting, harness remote sensing and information technology, develop agriculture on-line capacity.	
5. Finance, Investments, Capital formation,		6% growth in output and 40% of the plan outlays needed		Incentives on the lines of those given to industries for promoting investment. Establish rural credit institution on the lines of NABARD to promote investment activities in rural areas.	Favourable economic environment for increasing capital formation and farmer's own investments, increase public investment to reduce regional imbalances, review resource allocation regime, energise small farmers agro business consortium and promote public and private investments in agri-business, financial viability of extension services	Double the outlay on agricultural research and extension. Mount technology missions for new and thrust areas.
6. Aim/goal	Improve quality of rural life, Realise full potential of agriculture,	Build a vibrant agricultural economy for securing a better life for the farm community and an efficient institutional structure to fulfil the goals of economic efficiency, employment, export, equity and ecological conservation.		To incorporate competition in the agriculture sector, particularly for commercial crops and high value low volume crops. Simultaneously provide safety net to the poor.	Growth rate of 4%, efficient use of resources, growth with equity, demand driven, and sustainable	Realise full potential of agriculture to help resolve, self-sufficiency in foodgrains, poverty, unemployment and deficit trade balance.
7. Vision				To promote agricultural exports in the area of flowers, fruits and vegetables; to adopt ACRP approach; to declare agriculture as industry.		

Constructing a policy matrix for agriculture sector of India is quite a challenging task. The Constitution of India has accorded agriculture sector to the States, and thus the State governments are put in charge of making and implementing agriculture policies. Hitherto, this has happened only sporadically in the states of India, and there were no special efforts taken to generate policies from the State level. This bottom-up approach was essential in order to understand the location specific problems within the States, the constraints of the policy, and the solutions suggested keeping in view the earlier two issues. We have undertaken this exercise in order to construct a collage of policies, framed in each of the States. The exercise began with a common framework provided to all the participating AERCs to prepare draft policy reports for the respective States. This was accomplished at different levels by each of the AERC and putting together the results was a Herculean task. Even then, there were sufficient number of clues provided by the reports and these could be put together to formulate the final policy matrix.

Initially we had discussed all the constraints and policy concerns spread over six groups. These groups are formed keeping in view the major policy thrust required for the group of States, falling in each of the groups. The first group includes the States, which could move towards high commercialisation, taking advantage of the growth process and the natural resource base. The vanguards of the Green Revolution, namely Punjab and Haryana are naturally in the forefront here. 2. The states that have taken the initial steps to participate in the process of reform and have aggressively put forth institutional framework to enhance trade and encourage the trade oriented production. 3. The State that have been constrained due to inadequate infrastructure development, and therefore remained behind in the process of growth. If this particular constraint is overcome, probably these States could garner the advantage of the process of development. 4. The western Indian states of Gujarat and Rajasthan are known for the vast drought prone areas and deserts. These are water scarce regions of the country and rainfed cereals, pulses and oilseeds dominate the crop pattern. There is a good demand for the grains as well as its products in the world market. These two states are also well known for the traditional business skills and therefore trading of the grains and products could provide a winning solution. 5. Eastern Indian states could not garner the advantage of the Green Revolution during its first phase. This took some years to show the impact in this region. But even now the cropping pattern is paddy centered and that is a clear sign of underutilisation of resources. There is a need for diversification of the cropping pattern that takes advantage of the resource position in the states. The constraints faced by the agricultural sector in these two states are totally different, as here the resource

crunch is not faced except investible capital. 6. The states of Bihar and Uttar Pradesh were the two largest states of the country before reorganisation and separation of Uttaranchal and Jharkhand. These were also dictating the economic performance largely due to their sheer population and resource weight. Most of the parts of these two states are currently facing the problem of stagnated productivity and thus low net income for the farmers.

Our attempt here is to present a policy matrix emerging out of the analysis. The matrix has on its vertical axis the states grouped into the six components keeping in view the theme of future policy development for medium term. The horizontal axis groups the growth drivers into major components and this has been done in order to provide administrative ease. The argument that runs through the policy matrix could also be judged from the theme of the vertical column and create the programmes. In order to arrive at a clear target base programme the themes of policy have to be discussed with the administrators and the programme targets as well as basic contours of the programme could be chalked out. We could not accomplish this task in the absence of different meetings with the administrators, however one can easily do it once the themes of the policy matrix are accepted in principle.

## **References:**

Government of India. 1990a. National Agricultural Policy Resolution: Comment by Standing Advisory Committee (Chairman, Sharad Joshi). Ministry of Agriculture. New Delhi.

Govt of India, (1990). Agricultural Policies and Programmes: Report of the High Powered Committee (Chairman: Shri Bhanu Pratap Singh), July .

Govt of India (For various Years Years). Five Year Plan Documents First to Tenth Plan, Planning Commission, New Delhi.

Gregory, Sir Theodore (1943). Report of the Foodgrains Policy Committee, Government of India, New Delhi.

Maitra, Laxmi Kanta (1950). Report of the Foodgrains Investigation Committee, Government of India, New Delhi.

Mehta, Asok (1957). Report of the Foodgrains Enquiry Committee, Ministry of Food and Agriculture, Government of India, New Delhi.

Srinivasan T N (2000). Eight Lectures on India's Economic Reforms, Oxford University Press, New Delhi.

Venkatappaiah, B (1966). Report of the Foodgrains Policy Committee, Depart of Food, Ministry of Food and Agriculture, Government of India, New Delhi.

Govt of India (1999). Imperatives for Agricultural and Rural Development in India. A memorandum submitted to Prime Minister of India by H.D.Deve Gowda, Former Prime Minister of India on 17 February.

ASSOCHAM (1998). Strategic Plan for Indian Agricultural Sector, New Delhi. July, 1998.  
Government of Karnataka (1995). Karnataka Agriculture Policy Resolution, Directorate of agriculture, Bangalore.