Stubble Burning

Burning of crop residue, leftover from previous cropping season to clear it for sowing the next crop.

Introduction – Stubble burning refers to the use of controlled fire to clear the crop residue, which is left after the harvest of grains.

What prompts farmers to do so?

Due to very short time window for sowing of next crop and economic unviability of employing labours or mechanisation, Burning of residue becomes only feasible answer.

Also due to lack of any better alternative / incentive and Awareness gap about its deteriorating impact on soil fertility, farmers adopts this option.

There is also a Tribal culture, acc to which burning of crop residue increases the soil fertility.

Impacts of Stubble burning

The burning of crop residue emits the hazardous gases like NOx, SO_2 and PM, which phenomally contributes to Delhi-NCR Air pollution, making it a Gas chamber. (Thick smog)

Acc. to a study by IFPRI & Univ. of Washington, Stubble burning increases Respiratory illness to 3 times and causes increase in chronic heart and lung diseases

It causes huge deterioration to the soil fertility.

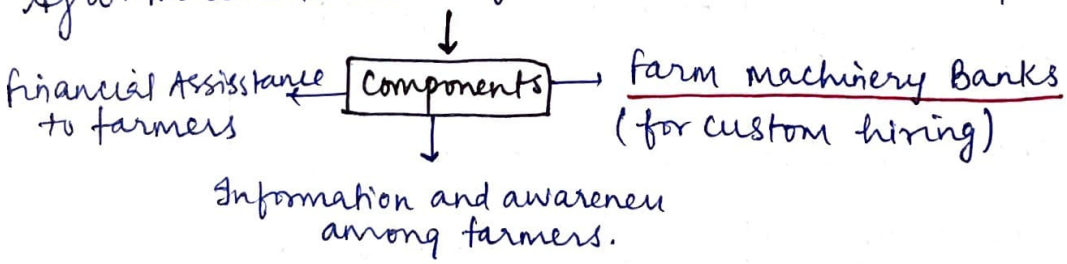
Measures taken by Government

Govt in 2014 launched National Policy for management of crop residue to incentivise the use of Happy seeders, Rotavator, Straw chopper etc.

Punjab Govt. has made considerable efforts like, the launch of apps such as e-Khet machine and e-Prevent.
Also Punjab has set up Paddy Straw challange fund of $1 Million for technological solutions.

- e-Khet
To facilitate access to Agro machinery
- e-Pehel
for information of Burning incidents.

Recently a central sector scheme Promotion of Agricultural mechanization for in-situ management of crop residue is launched with the corpus of ₹600 cr, with the aim to address Delhi Pollution, by facilitating Agro-machineries to farmers at Subsidised prices.



Critical Perspective of Measures taken

Despite of several effort by Govt, Ban by NGT in 2015 and imposition of Environmental cess by PPCB, the situation although improved, as recently stated by ICAR (41% Reduction) and declaration of 4500 villages as Zero Stubble burning villages,

But Still a "zero-tolerence" and Sustainable disposal methods needs to be evolved.

Actually the Agro-machineries are not cost-effective and the subsidies by Govt are not available to Tenants, S & M farmers, which are in Majority.

Way forward / What measures Govt should take to discourage Stubble Burning?

As mentioned by NITI Aayog's Strategy for New India @ 75, Recycling and utilizing of Agricultural waste would be a significant step towards Doubling farmers' income by 2022.

In this context, Govt may take following initiatives -

1. Promote the production of Biomass energy, organic fertilizers, Biofuels.
2. Expand MGNREGA to generate compost, by mixing Stubbles with cow dung and natural enzymes.
3. Clean Air India initiative provides for use of Stubbles for production of packing materials like cardboard.

With regards to other measures, Govt. can promote "Uberisation of Agriculture", Promotion of Combine harvesters-cum-Straw Management system, Strict enforcement of Sec. 188 of IPC, and Mass awareness campaign with the help of Environmental NGOs.

Chattisgarh Model → Set up Gauthan (A common plot in a village) where all Stubble is collected through Parali Daan, and converted into organic fertilizers by Rural youths through MGNREGA.

★ Supreme court (6 Nov 2019)
- Prepare comprehens... Policy at National lev...
- Incentive of ₹100/qu... to S & M farmers

★ Ban on Stubble burning is governed by Air (Prevention & Pollution) Act, 1981

Conclusion → A scientific intervention along with Traditional wisdom, facilitated by the sound administrative support can uproot this problem.

Current Developments

① Cash incentive to shift towards Corn cultivation

Shift away from Paddy in Punjab, as paddy's water regn is not aligned with this region's water resources.

Corn cultivation needs to be absorbed by Mills, for which Govt. should give Tax incentives to corn based industry to create a market aligned demand for corn.

MSP + Market assurance + Procurement + Insurance for alternative crops will change cropping pattern and solve this problem

② Co-operative Model

As experienced in Dairy, It is most prudent solution — Cardboard mfg units on co-operative basis → Tackle Stubble burning + Generate employment.

③ Can Punjab abandon Rice cultivation?
It cannot. → Produces 60% Paddy in just 1.5% area
- Imp. for food security
- Much paying export crop. (₹2638 cr in 2019)

Contract farming

Types (1)
- Procurement
- Partial
- Total

Introduction –

Contract farming is the system of enhancing farm-firm linkages, under which the marketing firms enter into contract with farmers to buy a specified quantity of produce at a pre-agreed price.

What are the Advantages of contract farming?

As mentioned in NITI Aayog's New India @ 75 Strategy, contract farming is the significant step towards Doubling farmers income by 2022.

This mechanism is a win-win situation for both producers and processing firms as it insures / immunes them against price risk and supply risk respectively.

Thus contract farming has the potential to strengthen Backward linkages, hence boosting the food processing industry in India

contract farming can also enable farmers to escape from "Low income trap", as farmers gets better access to HYVs, High Tech. coupled with guranteed Market at a remunerative pre-agreed price, with no dependence on Middle man

Also contract farming promotes Crop Diversification and Mixed farming which will augment farmers income, along with maintaining Soil fertility.

Critical Perspective

Despite of its guranteed insurance, contract farming also reinforces the Dependency syndrome as buyers can employ their disproportionate power, citing Quality concerns.

Also firms can exploit the Monopsony situation by offering lower prices to farmers citing quality concerns, who have low bargaining capacity.

contract farming protects company's interests at the cost of farmers it does not cover farmer's risk like crop failure, drought etc

It has been observed that contracting firms are biased towards large farmers, which is perpetuating the practise of Reverse Tenancy, i.e, Large farmers lease in land from SSM

Experience shows companies keep their quality parameters very high that farmers cannot meet
↓
farmers loose out

Model Contract farming Act 2018

It keeps contract farming outside the ambit of APMC act, thus eleminates Middleman, Mandi fees etc.

It protects farmers interests by covering produce under insurance, mandatory buying at pre-agreed price and promotion of FPOs, which will increase their Bargaining capacity.

It also provides for state level Contract farming (Promotion and facilitation) authority and an efficient Dispute Settlement mechanism at lowest possible level for quick disposal.

However Agriculture being the State subject, this model act seems to be stucked in centre-state political differences.

Conclusion

The urgent need of an hour is to streamline contract farming by an integrated law with "co-operative federalism" as it has the potential to redefine the idea of Agriculture in India and making farmers - "Agripreneurs".

Role of Women in Agriculture Sector, or, Feminisation of Agriculture

Introduction

Oxfam Report (2018) – Women H/s for 80% food prodⁿ And 90% Dairy Production

"Feminisation of Agriculture" refers to the phenomenal increase in the participation of women in Agricultural activities.

Acc. to Economic Survey 2017-18, "with growing rural to urban migration by men, there is 'feminisation' of agri. sector with increasing number of women in multiple roles as cultivators, entrepreneurs and labourers".

Causes for feminisation of Indian Agriculture

The Agrarian distress and the subsequent Rural poverty has resulted into De-peasantization i.e migration of males towards Non-Agriculture work, as a result, women have got absorbed in Agri. & allied activities. (To Augment family income).

Along with this, Mechanization of Agriculture and Restriction on upward mobility of women for employment, also caused this.

Role of Women

Acc. to FAO, Globally there is empherical evidence that women have a decisive role in ensuring food security & Preserving local Agro-Biodiversity

In India, Women plays a significant role at all level of Agriculture value chain -

- Production, Pre-harvest, Post-harvest, processing, packaging and marketing.

Also women plays an imp. role in allied activities like cattle rearing, fodder collection etc

Acc. to Oxfam India (2018), Women are responsible for about 80% food and 90% dairy production.

Challanges faced by Women in Agriculture

There exists an embedded "Gender discrimination" in Indian Agri. Sector, which causes following issues-

(1) Issue of Land ownership

Acc to Agricultural census (2015-16), only 13.78% of women are operational landholders, which reflects Gender disparity in ownership of Agri. landholdings, due to Patriarchal structure of Indian society.

(2) Access to credit, Agri Inputs, Subsidies

Due to lack of ownership rights, all the Institutional apparatus for credit, insurance, machines, subsidies etc becomes inaccessible to women.

(3) No Representation in farmers organisations and APMCs

Their contribution is undermined. As their voice is not heard, thei further marginalises them in marketing etc

(4) Gender Wage Disparity and Double Bourden

Way forward

As Mentioned by Economic Survey 2017-18, an "Inclusive transformative agricultural policy" needs to be adopted with "Gender specific intervention" to increase productivity and "Agri. value chain".

In order to secure Women land ownership rights, a legislation on the lines of "Women farmers entitlement Bill" (2013) needs to be enacted, as acc to FAO, empowering women with land rights can raise agri output by 2-5 to 3%. and reduce global hunger by 12-17%.

This Bill was introduced in RS, But was lapsed.

Also, SDG 5 seeks to grant property rights of Agricultural land to women.

* CEDAW → land right discrimination to rural women is violation of HRs.

Institutional "Credit facilitation" should be enhanced under Micro-finance of NABARD, without collateral.

Regular Agricultural training with the help of Krishi Vigyan Kendras and Equal pay mechanism for women is also needed.

Government's 'Pro-women' Efforts in Agri sector

National Gender Resource centre in Agriculture

Acc. to NGRCA's "Women farmer friendly Handbook", following provisions empowers women -

1. ATMA provides support to women food security groups.
2. Additional benefits, subsidy to women on procurement of Agri. machineries (35% to women, Men-25%)
3. Mandatory Repⁿ of women in State, Dist, block farm advisory committee and ATMA managⁿ committee
4. Promotion of women SHGs, cooperatives for micro-finance and seeds.
5. Under ISAM, women are endowed with 33% subsidy for storage infrastructure.

Agri. Tech Managⁿ agency

Some other notable efforts made by the Govt. includes - A gender knowledge portal by ICAR, Provision for women-centric measures under National policy on farmers 2007, 30% fund allocation for women farmers under NMSA.

National mission for Sustainable Agri.

Also Min. of Agriculture has declared 15th oct as Rashtriya Mahila Kisan Diwas.

(Inter-state Portability of Ration card)

It is the Nationwide portability of Ration Cards, whereby the Beneficiaries will be able to buy subsidised food grains at any fair price shop in the country.

One Nation one Ration Card

Why Needed

Untill now, food security has been a Location Linked Benefit, leaving crores of migrants outside of food security Net.

Recommended by – Partha Mukhopadhyay working group on Migration.

Benefits

- No one should be left Deprived of food grain irrespective of his location.
  - Imp. for Migrant Workers who frequently change their place of Dwelling.
- Curb corruption and Improve access to Quality service by removing monopolies. (Earlier - whims of the Dealers)
- Will Digitalise & Integrate the food Storage & PDS.
- By Aadhar leinkage, it will reduce chances of anyone holding more than one Ration card.

(ADD to Integration of country)

Challanges

- TN opposed calling it violation of federalism
- Aadhar leinkage is pre-requisite for the scheme to work.
- Lack of e-Pos machine in all PDS + their system failures in Hinterlands.
- Difference b/w Ration card benefits offered by Centre & State (TN said it will be offering only central entitlement to Migrants workers)
- Lack of Concrete Data on Inter-State Migration

Way forward

- Speed up installation of e-Pos across the country.
- Inter-State Co-op^{n} + Co-op. federalism
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