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TNAU, COIMBTORE

XIITH PLAN STRATEGIES FOR RE-ACTIVATING AGRIL AND ALLIED SECTORS

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CONTRIBUTION...AGRIL. SECTOR

- Accounts for 14% of GDP
- About 11% of total exports
- Main source of raw material for large number of industries
- Provides employment to 57.4% of workforce in rural areas
- 31.9% Rural households are engaged in self employment in agriculture.
- 25.6% of rural households are engaged as agricultural labourers as source of major income.
- Dependence on agriculture for self employment remained unchanged over the decade(2000-2010)

PERFORMANCE OVER PLANS

Plan	Share of Agriculture in the Economy	Average Annual Growth	Total Economy
IXth FYP	23.4%	2.5%	5.7
Xth FYP	19.0%	2.4%	7.6
XIth FYP	15.2% (updated 14.2%)	3.3%	7.9

2004-05 Prices

i) declining GDP (ii) dependence level same, (iii) calls for more inclusive growth.

STATE WISE AVERAGE ANNUAL GROWTH – XITH PLAN

(AT 2004-05 CONSTANT PRICES)

4% and Above	2 – 4%	Up to 2%
Andhra Pradesh (5.38)	Haryana (3.44)	Bihar (1.19)
Arunachal Pradesh (5.56)	Meghalaya (3.34)	Goa (1.03)
Assam (4.81)	Nagaland (2.85)	Himachal Pradesh (1.07)
Chattisgarh (6.74)	Orissa (3.35)	Jammu & Kashmir (0.68)
Gujrat (4.11)	Uttarakhand (2.47)	Kerala (-0.04)
Jharkhand (7.94)	Uttar Pradesh (3.00)	Punjab (1.71)
Karnataka (5.74)	West Bengal (2.76)	Tamilnadu (1.08)
Madhya Pradesh (5.43)		
Maharashtra (6.63)		
Manipur (8.33)		
Mizoram (9.45)		
Rajasthan (7.67)		
Sikkim (4.83)		
Tripura (5.76)		

PRODUCTION PERFORMANCE

	Prodn. in Mill. Tons (2011-12, 4 th AE)	Demands by 2016-17
Food Grains	257.44	257
Milk	121	141
Fish	8.44(5.22 Inland+3.22Marine)	12.8
Fruits	78	97
Vegetables	150	161
Meat	4.8	8.5
Eggs	63 (Billion)	70
Pulses	17.21	30
Oil seeds	30	59
Sugarcane	357.7	5
Cotton	352(LBs)	

AGRICULTURAL GROWTH- KEY DRIVERS

- **Technology**
- **Inter & intra sectoral** potential/priorities
- Quality **inputs**, their timely and judicious use
- Efficient use of **natural resources** including land and water
- Enhanced **Investments** in key areas
- **Infrastructural** support
- Efficient functioning of **markets/price incentives**
- **Dissemination - convergence/prog delivery**

FOOD AND NUTRITIONAL CONCERNS

- India ranks at **67th** as per **Global Hunger Index(IFPRI)**
- Half of the **children(51%)** are malnourished.
- **55.3%** married women suffer from anemia;**30%** adults suffer from protein-calorie malnutrition
- Food availability to BPL and supply/distribution in **disadvantaged areas** – serious concern.
- Food **quality/ standards** is another major concern.
- Horticulture , milk, fish , poultry and nutri-cereals provide excellent **opportunity on nutritional uptake.**

CHALLENGES & OPPORTUNITIES

- Small & Marginal farmers **comprise 83%** of total land holdings occupying 41% area under all operational holdings. Average landholding reduced to **1.30 ha**.
- About **60% area** continues to be rainfed.
- **Land, Water, Soil health and Biodiversity** resources shrinking and deteriorating and ground water going down even in irrigated areas.
- Small holders and landless labourers control 71% **cattle, 63% buffaloes, 66% small ruminants, 70% pigs and 74% poultry**.
- Fishers: **Low productivity, un-organized prodn, weak marketing.**

CHALLENGES & OPPORTUNITIES...CONTD

- **Missions: NFSM/NHM/NMSA/NMAET/MOOP/NLSM**
- **NDP/NLM**
- **Food Security:** large potential in Eastern/Central India/Across the States and Sectors
- **Involvement** FOs,FFS,NGOs,CBOs,ICTs and PPPs
- **Disadvantaged** areas and social groups
- **Empowerment** Farmer/farm women/youth

RAINFED AGRICULTURE AND EFFORTS

- **60%** cultivable area would continue to be rainfed.
- Vulnerable natural resource base: 40% population, 40% production and **60% livestock**.
- XIth Plan watershed target **36.6M.ha, treated 19**
- **Climate change** : Adptation/Mitigation issues - predominant.
- Capture **NICRA/NAIP** experiences
- **Differentiated policy framework** for rainfed **agriculture**(eg.agreegated/empowered approaches)
- **IWMP -NRAA pilots-NMSA efforts**

LIVESTOCK, DAIRY AND FISHERIES

- Small holders and landless labourers – own about **65-70%** cattle , buffaloes , **Small ruminants** , pigs and poultry, mostly in rain fed and disadvantaged areas with low productivity
- Enhancing productivity through genetic improvements , organized **input/credit support services and marketing**
- **Para vets**, feed/fodder and animal health concerns.
- **Growth potential in fisheries sector(8.44to12.8MTXII)**
- Limited capacity to harness **deep sea resources**
- **AHD / Fisheries Extension is weak or non-existing.**

WOMEN IN AGRICULTURE

- Women's participation increasing.
- **Capacity building and empowerment** at every level.
- **Improving access** to credit, technology, inputs, markets and gender friendly farm mechanization.
- **Reorientation**/feminization of extension services
- Adequate re-presentaion **in various fora** at all levels especially farm women from weaker sections
- **Incentives** to the States promoting gender friendly extension strategies

SECTORAL ASSESSMENT - EMERGING ISSUES AND PRIORITIES

Horticulture

- Quality planting material and post harvest management.
- Production clusters and marketing links.
- Promotion of **growers associations** and horticulture infrastructure

Farm Mechanization:

- Improved, **low cost and multi-utility farm equipment** implements targeting small and marginal farmers.
- Custom highering centers where mechanization index is very low

EMERGING ISSUES – CONTD....

Seed

- **Localized quality seed prodn/ Fodder seed availability**
- Seed preservation, seed treatment.

Credit

- Need for objective assessment
- Track the **credit flow to small and marginal** and transmission losses.
- Expanding KCCs and banking outreach through PACs

Marketing

- **Producer organization enabled aggregation.**
- Promoting Rythu / Kissan Bazars.
- Incentives for marketing reforms.

SUBSTANTIAL INCREASE IN INVESTMENTS

RS. IN CRS

Sector	XIth Plan (2007-08 prices)	XIIth Plan (Projected)
DAC	41337	71500
DARE	12588	25553
DAHD & F	8174	14179
RKVY	25000	63246
States	111824	250721
Total	1,98,923	4,25,199

RKVY- MAJOR INTERVENTION

- Innovative approach
- **Increased** allocation(**Rs.25000cr vs 63246 crs**)
- **Flexibility** to the States
- **Allied Sector** coverage- Performance variation
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- **C-DAPs**/Revisiting them to make it dynamic
- **Broad reforms menu**

BROAD BREAK UPI OF DAC OUTLAYS(OTHER THAN RKVY)

Sr.No.	Name of the Programme	Proposed Outlay(Rs.in Cr.	
1.	NFSM	12350	
2.	NHM	15975	
3.	NM(OSOP)	3507	
4.	NMSA	13034	
5.	EXTN. AND TECHNOLOGY (Extn 6068,IT632,Seed 2088,Machinery2000, PP473)	11251	
6.	Insurance	7996	
7.	Census	1341	
8.	Marketing	5048	
9.	Co operation	920	
10.	Economic Services	69	
	Total	71500 +63246(RKVY)	17
	Grand Total	1,34746	

DAHD&F XII PLAN BREAK UP

Sr.No	Name of the Major Schemes	XIIth Plan Outlay (Rs.in Crores)
1.	Central Cattle Devp. Organizations	146
2.	National Livestock Mission(small ruminants , pigs, poultry, fodder)	600
3.	Animal Health	115
4.	Dairy Entrepreneurs Devp. Scheme	1400
5.	National Dairy Plan	1756
6.	Fisheries Institutes	218
8.	National Fisheries Development Board	1880
9.	National Programme for Bovine Breeding	1800
10.	Livestock Health and Disease Control	3114
11.	National Livestock Mission	2200
12.	National Scheme of Welfare of Fishers	320
13.	Census/Sample survey/Others	630
	Total14,179

ICAR...BROAD BREAK UP OF XIIth PLAN OUTLAYS

Sr No	Scheme/Programme	Rs. in Crs
1.	Frontline Extension Services	6000
2.	Agricultural Education	4000
3.	Crop Science Research	2850
4.	Consortia Research Platforms(New)	2480
5.	Management & Information Services	1961
6.	National Resources Mgmt & NICRA	1900
7.	Horticulture /Agril. Engineering	1575
8.	CAUs Ongoing & New	1717
9.	Fund for Basic & Str. Res /NAIP	1000
10.	Animal Sciences/Fisheries/ESM	2070
	Total.....	25553

GOI PRIORITIES AND PROGRAMMES REFLECTIONS OF DAC PRIORITIES IN RFD (2012-13)

- Increasing Crop production and productivity to ensure **food security**,
- Incentivise the **States for public investment** in agriculture and allied sectors.
- Diversification in agriculture for increased income generation.
- Ensuring supply of **agricultural Inputs** (seed /fertilizers /mechanization /pp chemicals/credit/marketing) for enhanced production and productivity and income.
- **Soil health management**, conservation agriculture and drought preparedness.
- Strengthening **technology dissemination** and farm information.
- **Encouraging private investments** in agriculture sector through PPP mode.

ICAR PRIORITIES IN RFD (2012-13)

- Improving research in **NRM and input use efficiency.**
- Utilizing **frontier research in identified areas** for better genetic exploitation.
- IP management and **commercialization of technologies.**
- PHM, Farm mechanization and value addition.
- Development of **vaccines and diagnostics.**
- Assessment of monitoring of fisheries resources.
- Strengthening **higher agricultural education.**
- Strengthening **frontline agricultural extension system** and addressing gender issues.

DEPARTMENT OF AHD&F

PRIORITIES IN RFD (2012-13)

- Prevention and control of **animal diseases**.
- Development of feed and fodder.
- Increased **fish production** and assistance to fishermen.
- Development of poultry (focus on **backyard and rural**)
- Development of **small ruminants**.
- **Genetic upgradation of livestock** and conservation of indigenous breeds.
- **Increased milk production** (NDP).

FAO-NCAP CPF MEET CONCERNS EMERGED

(20.11.2012)

- Greater **inclusiveness** of disadvantaged social groups/women/marginalized areas,
- **Sustainable production especially in rainfed** and poorly utilized eco-systems,
- **Empowerment** of small/marginal producer groups, their CB , livelihood enhancement and institutional innovations

FAO-NCAP MEET OUTCOME

Contd.....

- Improved **implementation** of GOI programmes/Missions, th. distt. level pilots and applying result based M&E mechanisms and
- Improving national **food and nutritional security** apparatus and outcomes by harnessing global knowledge , practices and technologies

FAO's STRATEGIC OBJS(Sept,2012)&GOI progs.

- 1.Eradicate hunger, food insecurity and malnutrition(NFSM 12350cr,NHM 15975cr,NMLOOP 3507cr,Fishries 2214cr, AHD 8299cr,Dairy/NDP 1400/1756 cr)**
- 2.Increase and improve provision of goods and services from agriculture , forestry & fisheries in a sustainable manner (NMSA13034cr,IWMP(29000cr),NMAE&T 11251cr,Marketing 5048cr,Coopn 920cr, ICAR25553cr)**

FAO OBJECTIVES & GOI Schemes...contd

3.Reduce rural poverty

NREGA (165500),NMRL (29006)

4.Enable more inclusive and efficient food and agricultural systems at local , national and international levels(RKVY 63246cr)

5.Increase the resilience of livelihoods to threats and crises

(ISFI 7996cr)

EXTENSION SYSTEMS

- **FRONT LINE -ICAR/SAU/KVK**
- **FIELD EXTENSION-STATES**
- **NGO DRIVEN**
- **COMPANIES/CORPORATES**
- **DONAR MODELS**
- **ICT DRIVEN MODELS**
- **FARMER EMP/FO DRIVEN MODELS**

AGRICULTURAL EXTENSION- EMERGING CHALLENGES -XII PLAN

- **Empower farmers**, farm youth and farm women
- Project **planning and management capacities** of ATMAs, KVKs, BTTs need to be improved.
- ATMA must provide **convergence platform**
- Priorities through C-DAPs-provide holistic extension **as opposed to crop centric extension.**
- Promote **para extension workers** and alternate sources of extension delivery, across the sectors

EXTENSION CHALLENGES...Contd

- Promote intensive use of **ICT/FFS**
- Decentralized planning process and extension outreach **in dis-advantaged areas**
- **Proper sharing** of Extension/training space
- KVKs to lead by locally relevant **science based innovations**/examples

AGRIL.EXTENSION –EMERGING CHALLENGES ...CONTD

- **Decentralized plans**, involvement of PRIs and Community participation
- **PPP,Entrepreneurs** and Alternate sources of TOT
- KVKs-ATMAs-OTHERS....**Right equilibrium** as per locational requirments
- Missions to have strong **TOT/Extension window**
- **TOT in allied** (Hort/Animal/Dairy/Fish)....?

R & D LINKAGES IN AGRICULTURE AND ALLIED SECTORS

- **Present Fora:** DAC-ICAR interface, pre-seasonal state workshops, Regional Committee meetings of ICAR, District level mechanism...**Need for improv**
- SAU/Instt. **Outreach progs ...Linkage with field**
- **R & D Convergence guidelines-** its appreciation and application needs improvements.
- **Promote multi agency R&D initiatives which are locally effective.**
- Must use strengths of **FS Clubs**, FOs, NGOs, **Field Schools** , PRIs etc.
- Must address low growth, stagnating yields/yield gaps and tech **concerns of SM & WS farmers**

SPECIAL EXTENSION EFFORTS - AHD&FISHERIES

- More of special RKVY projects
- Reorient KVKs and ATMAs
- Dairy/Fish Farmer Groups & Breeders Assns
- Extension for small ruminants/pig/poultry
- Strengthening Outreach of SAUs/ICAR instts.
- Dairy/Fish cops and Distt.Milk Unions
- Integrated Live stock Devp. Centres
- Para vets and Progressive farmers(GOKUL)
- PPPs & Dairy entrepreneurs

GLOBAL TOT EXPERIENCES

- Frontline-Field Extension driven- India
- KGSs - SMS driven- US, WE
- Entrepreneur (PPP) driven-US, WE
- NGO driven-INDIA,
- FOs/Farmer Federation-LA, SE, DANISH
- Input support industries driven- All over
- ICT/Media driven- SE, India,
- EAP driven- Donor models-sporadic

FEW WORDS TO YOUNG STUDENTS / FACULTY

- Supporting food producer—far more noble task
- No short cuts to success/Hard work pays back
- Low performance is crime against potential
- Farmer field/income - real test of innovation
- Look beyond boundaries ...be open to ideas
- Statue and Stairs
- One Vs Many
- Knowledge plus Action is Victory

CONCLUDING

- Agril.growth and Production
- Challenges & Opportunities
- Investments and Plan priorities
- FAO – CPF Experiences
- Agricultural Extension in Detail
- Focused on AH&D Extension
- A few words to young students

THANKS

TNAU....