

WASSAN



**Rainfed
Livestock
Network**

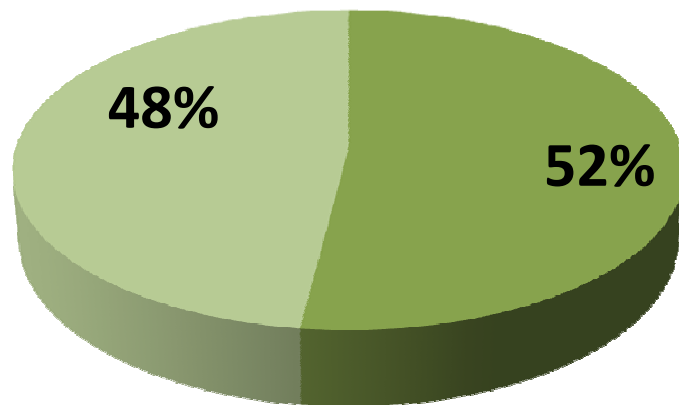
Strengthening of Backyard Poultry Production Systems

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Backyard Poultry

Poultry Bird Population in India

■ Desi Birds ■ Others



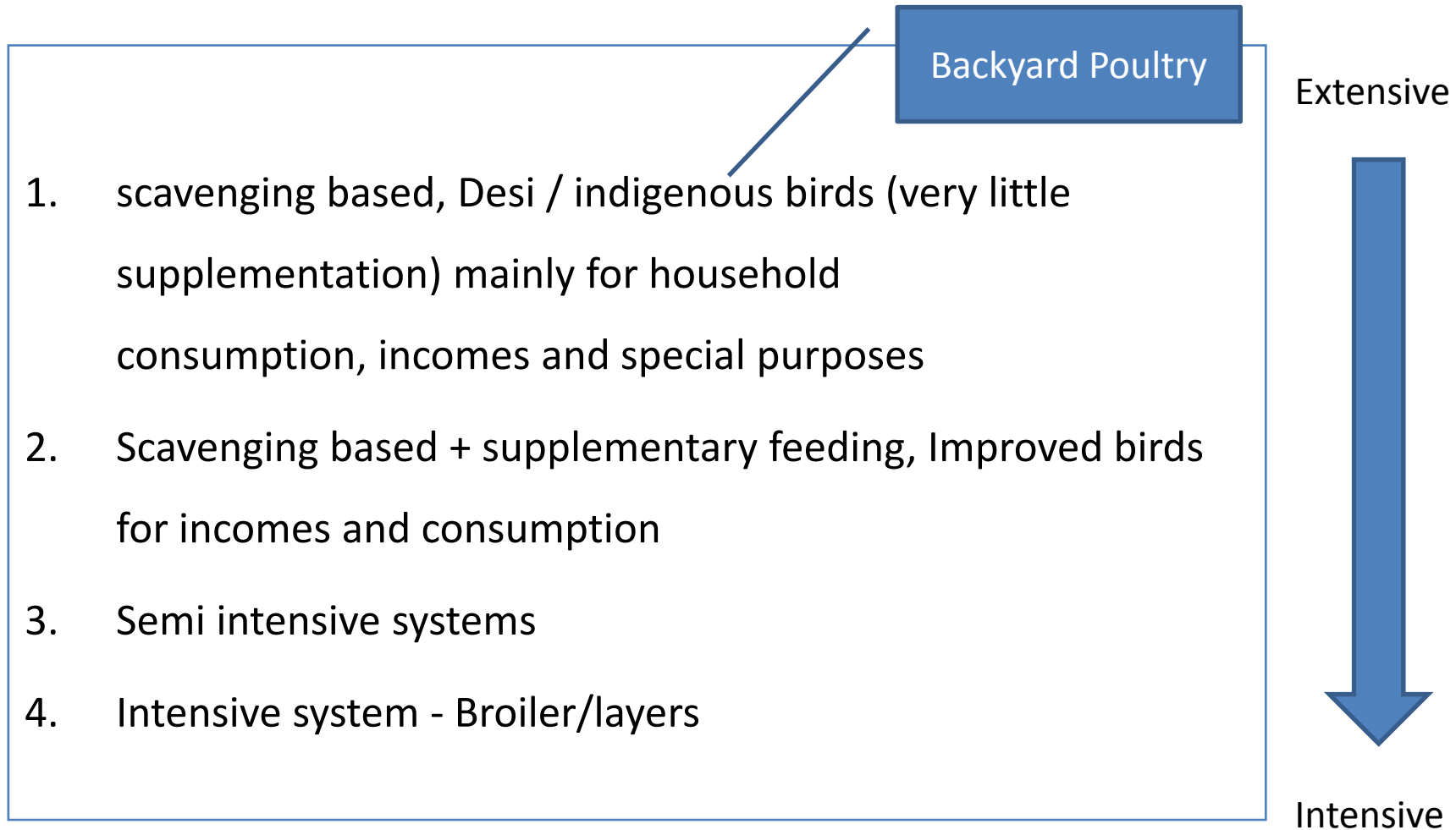
BYP contributes

-52% of the total poultry bird population,

-21% of the national egg production and

- 8.47% of meat production in the country

Main Production Situations in Poultry . .



Distinct Features of Backyard Poultry

S.NO	Parameters	BYP	Intensive
1	HH coverage	High	Low
2	Dedicated labour	Low	High
3	Dedicated land to produce feed	No/low	High
4	Disease risk	Low	High
5	Dependency on external inputs	Low	High
6	Contribution to HH nutrition	High	Low
7	Management intensity	Low	High
8	Auto regeneration	Yes	No

Distinct Features of Backyard Poultry

S.NO	Parameters	BYP	Intensive
9	Infrastructure investments	Low	High
10	Incomes	Low (wide spread)	High
11	Type of income	Low (regular continuous)	High (profit)
12	Cultural links	High	Low
13	Market integration	Low	High
14	Main marketed products	Birds (progeny)	Eggs & meat
15	Industrial/ entrepreneurial interest	Low	High
16	Potential distribution of incomes	High	Low

BYP has distinct features; investments or improvement in BYP production systems must be in the context of these features to be applicable.

Rained Livestock Network

- RLN aims to synthesize lessons for policy advocacy and programmatic action for livestock development in arid and semi-arid areas by creating visibility to the importance and critical value of non-dairy livestock and low- input animal husbandry to the livelihoods of the marginalized.

Basic Premise of RLN's Backyard Poultry Pilot Initiative

While the mainstream efforts so far mainly have been on **introducing new breeds**, establishing supply chains for chicks with a focus on improving the bird weight/ no of eggs laid (or both) of individual birds.

- Achieving a **stable bird population** (up to potential levels) in a **given area** by **establishing support services** and addressing critical constraints will increase the incomes and assets. i.e. it attempts at increasing the system productivity.

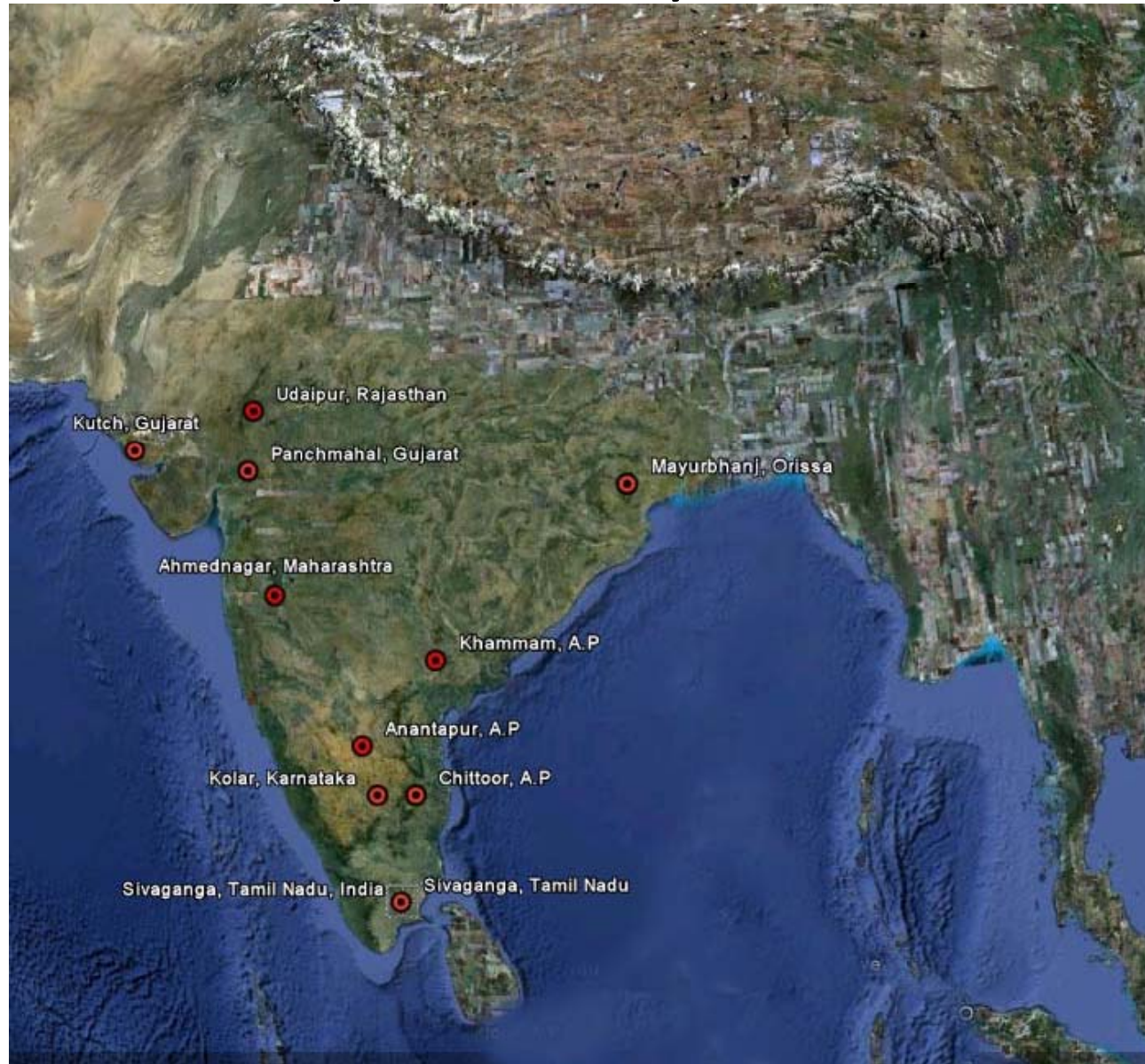
Auto-regeneration is the key factor

Objectives of the pilot initiative

- Establishing effective community level service delivery systems in terms of health care, improved protection, better management practices and marketing for enhancing the rural livelihoods (with a focus on the poor and the women).
- Promoting *in situ* conservation measures for indigenous poultry breeds.
- Evolving a programmatic / policy framework through synthesizing results from action research

Program is built on the experiences of Danida supported programs, BILDP And WASSAN's initiatives.

Locations of Rainfed Livestock Network – Backyard Poultry Pilot -Sites



RLN-Backyard Poultry Pilot Initiative Partners

S.NO	State	Partner NGO	No of sites
1	Rajasthan	Sevamandir	2
		FES-Udaipur	1
2	Gujarat	FES-Dahod	1
		Sahajeevan	1
3	Maharashtra	WOTR	2
	Andhra Pradesh	WASSAN	2
4		FES-Madanapally	1
	Karnataka	FES-Chintamani	1
5	Orissa	SOOVA	1

The pilot initiative is anchored by WASSAN, Hyderabad.

One site means. .

No. of hen units (around)	1000
Average birds per HH	4
No. of HHs	250
Approx no. of villages	3 to 5

In total working in 13 sites in seven states with
2603 households and 9270 hen units

Contents of the Pilot Program

- BASE LINE – Characterisation of each site
 - Village data
 - Census data on few parameters
 - base line data 10% sample HHs –
- Computation of baseline (monitoring) indicators
- Data analysis, identification of strategic intervention areas through participatory processes and setting target monitoring indicators.
- Implementation of various action plans emerging from the discussion
- Regular monitoring of 10% of sample HHs
- Organizing exposure visits of concerned officials to program sites & exploring scaling up opportunity
- IMPACT ASSESSMENT REPORT – on the basis of Monitoring Data
- Assessing results, consultation on draft guidelines for a national program

Program period –
March, 2010 to
March, 2011 (1st Phase)

Indicators for Monitoring Impacts. .

1. Total number of hen units in the village
2. Average number of hen units per household
3. Eggs produced per bird
4. Number of birds sold per household
5. Number of birds consumed per household
6. How many households not keeping birds
7. Income from poultry
8. Hatchability%
9. Mortality %
10. Supplementary Feeding practices
11. Improvement in shelters



Findings from sample HHs base data analysis

- Hens occupies 26.3%, cocks-17% and chicks-56.6% in total bird population
- Average no. of hens per HH is 3.5
- Average chick to hen ratio is 2.2
- 10% HHs don't have poultry
- Average egg production per clutch is 15, 46 per hen per year and 144 per HHs per annum
- Hatchability % - 68%
- Mortality in chicks -54.0 percent. chicks died due to predation -32.7 percent, due to diseases-21.3 percent.



Findings from sample HHs base data analysis

- The mortality is relatively lesser among the adults, ranges from 18.0 to 32 percent
- Percentage of income of HHs from backyard poultry ranges from 2.4 to 7.8 percent
- Handful of grains as supplementary feed if possible
- Birds are staying at nights on bird perches, trees, low cost structures and under baskets



Main Areas of Intervention

1. Reducing mortality
 - Diseases (institutionalised preventive healthcare services)
 - Predation
2. Increasing hatchability and reducing spoilage of eggs
3. Better feed management (intensifying feed availability in the backyard and supplementation)
4. Developing market networks



Reducing Mortality. .



Managing Diseases:

- Institutionalization of health services
 - Drawing up of vaccination calendar along with local Veterinarian from AH department (VAS) and poultry farmers
 - Awareness building programs on preventable diseases
 - Selection of Vaccinators & conducting trainings
 - Aggregation of vaccine requirements & placing indent to department
 - Placing of infrastructure like ice boxes, syringes & needles & Procurement of vaccines from DoAH
 - Organising vaccination events & submission of vaccination data to VAS

Reducing mortality cont



- **Systems to reduce the chick mortality and predation**
 - Better night shelters (grant or subsidised investment)
 - Chick rearing centers (CRCs)
 - Others, if any
- **Increasing hatchability:**
 - Candling of eggs & proper storage of eggs
 - Promotion of low cost hatching methods



Conti . .



- **Better feed management**
 - Integrating cereals/ millets in to farming systems
 - White ants tapping / feeding
 - Azolla production
 - Exploring other innovations etc
- **Establishing Market linkages**
 - Exploring to establish networked linkages to niche markets for desi birds & eggs

Desi chick-rearing in Chick Rearing



- Mortality is >54% in desi chicks due to
 - Diseases
 - Predation(from 12 am to 4 pm is more)
- Rearing in CRCs will reduce the mortality contributing to increase in the population

Desi-Chick Rearing Centers on Share Cropping basis:

- Collecting 10 days old chicks from households
- Rearing it in intensive system (ensuring vaccination taken up as per schedule & feed)
- 50% of six weeks old chicks will be given back & 50% will be retained by the CRC (profit for the CRC)

The Observed impacts from the work of WASSAN

- Number of clutches per year increased –by breaking the broodiness, hens started laying eggs within 30-40 days. (from 3-4 to 6-7clutches)
- More body weight in CRC
- Reduced mortality- from 40% to 7% due to confined situation and regular vaccination





Learning

- CRC must operate continuously round the year as chicks are available in staggered manner
- Wastage can be minimized if vaccines & medicines are available and accessible in small doses
- The share cropping ratio should be 40:60 economical to entrepreneur than 50:50
- It should be reared upto 6th week; gains body weight of 300gms. Rearing up to 8th wk is expensive
- Drawing vaccination schedule based on local VAS is important
- Entrepreneur has to take healthy chicks only to rear
- Vaccination need to be checked and quality assured

Dealing with diseases..



- Total village vaccination
- Night hours only suitable
- It is not economical to retain health workers as the transaction costs are high

Strategy

- Allocate yearly budget to each village based on bird population (Rs.100 per village with bird population of 100 to 150 for vaccination services). Payment will be done by CBOs/Gram Panchayat
- Paying service charges by poultry holders and Dept (AH)
- Partner with CBOs and GPs & develop local women vaccinators
- Make Ranikheth (RD) vaccine available in 50 doses vial. In some areas FP is like endemic disease. . .Ranikheth +Fowl Pox combined vaccines
- Strengthening the disease surveillance system involving CBOs

Projections. .



Situation	Eggs production	Hatchability%	Survivability%	No. of females added	No. of birds consumed + sold	Value (Rs)	Per HH income (Rs)
Present	12/clutch	68	50	760	1195	179250	996
Simulation -1	17% increase	80	60	537	840	125989	+700
Simulation -2	17% increase	80	70	1073	1530	229478	+1275
Simulation -3	17% increase	80	80	1610	2220	332967	+1850

Issues for Policy

RECOGNISE BYP PRODUCTION SYSTEM:

- BYP must be recognised as a production system and allocation be made with in the Dept of AH's Plan budgets.
- These must be distinguished from other forms of BYP (intensive and semi-intensive systems) & investments must be allocated for traditional BYP.
- BYP regeneration must be taken up on an AREA COVERAGE basis.
- shift from scheme based approach (top down) to developing area based programs
- Shift from “Department centered to Community centered”

Issues for Policy

INSTITUTIONALISE HEALTH CARE SERVICES:

- Providing door-step service delivery for prophylactic and health services.
 - AHW (Animal Health Worker) model can be tried; but ‘salaried persons’ is NOT a viable / sustainable option. Multiple vaccinators
 - Capacity building of link workers and poultry holders also. AHWs be anchored in a CBOs or Gram Panchayats
 - Enabling legal framework for service delivery by the AHWs
- Vaccines
 - Making available vaccines and enabling access; creating ensuring storage facility at block/mandal level
 - Providing vaccines in smaller doses
 - Research on developing thermo stable vaccines

Contd. .

INVEST ON SERVICES AND SUPPORT SYSTEMS:

- Supporting Desi chick rearing centers
- Investments for night shelter
- Recognize livelihood potential of BYP and reorient the veterinary staff towards livelihood approach
- Support large scale pilot initiatives to experiment on institutional systems



Thank You