

Network for Poultry Production and Health in Developing Countries

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Abstract

The Network for Poultry Production and Health as presented in this paper is based on a successful poverty alleviation concept with an integrated poultry chain as the income generating activities. The concept has been developed in Bangladesh and institutionalised through the Danida/IFAD-supported Smallholder Livestock Development Project.

The vision of the Network is to build up, through a multi-disciplinary approach, the institutional capacity in Denmark and in the developing countries to establish 1 million smallholder units per year for a donor cost of US \$ 100 or less per participating family.

The Network employs a three-pronged strategy to reach the planned institutional capacity. It

- i. facilitates human resource development in Denmark and in developing countries;
- i. co-ordinates research and development related to dissemination of the concept; and
- i. provides support to planning of pilot projects and to project implementation.

The participating institutions from which the Board of Directors are appointed comprises: the Royal Veterinary and Agricultural University, the Danish Institute of Agricultural Science, the University of Copenhagen, and the University of Aarhus. However, the Network will be open for all, institutions and individuals, and these Network Advisory Groups will form the reference and dialogue body of the Network.

Key words: Traditional poultry holding, institutional development, concept replication

Background

The network

The Smallholder Livestock Development Project (SLDP) in Bangladesh was reviewed during November 1994 by a mission fielded by Danida. The outcome of the mission's work was a very positive report, and one of the conclusive remarks was '*The poultry model developed by DLS and BRAC is indeed very interesting and holds the potential of breaking new grounds in the science and practices of smallholder and scavenger poultry production*'. Review missions and impact surveys, which followed, have further documented the superiority of the model as an instrument in rural poverty alleviation programmes in comparison with other programmes.

The success of the SLDP fostered the idea of development of a concept, based on the principles of SLDP, to be used in other developing countries. It was realised, from the very beginning, that the limited international institutional capacity and the limited international human resource base in this specific field would be a major constraint in such an endeavour. During 1996 a number of meetings were held at the Royal Veterinary and Agriculture University (RVAU) and with Danida participation to examine the possibilities for establishment of the institutional capacity and enhance the Danish human resource base in order to develop and to disseminate a smallholder concept in other developing countries.

On January 1, 1997 the Network for Poultry Production and Health was formally established with a Board of Directors and a set of regulations and with Professor Peter Nansen, RVAU, as chairman. The participating institutions were RVAU and the Danish Institute of Agricultural Science; later the University of Copenhagen and the University of Aarhus have also been included as board members. The Board of Directors includes also one delegated member appointed by, and representing, Danida.

Currently, the operation of the Network is in its planning stage and the operational outlines presented in this paper have to be considered as preliminary.

The Bangladeshi concept

Rural poultry production in developing countries is based mainly on small flocks of scavenging poultry; 80 to 90% of the households in rural areas keep poultry, typically in the hands of women. Donor agencies have financed a number of poultry development projects. The World Bank (de Haan, 1992) has financed more than 140 projects with a cost of US \$ 700 millions, and the International Fund for Agricultural Development (IFAD) (Nateba, 1996) has been involved in 12 smallholder development projects since 1981 mainly focusing on women, with poultry as the main project element. However, the impact of the previous programmes, related to traditional poultry holdings, has been rather small, mainly because these projects have not been a component in a comprehensive management system, but have been based on one element only.

Experience from Bangladesh shows that a small flock of 10 hens can provide the same income as a day of women's labour. The same observations are made in other countries such as India, Vietnam, Tanzania, Uganda, Turkmenistan, Ethiopia, and DPR Korea. The main differences between the project concept in Bangladesh and previous development concepts are that the Bangladesh model is an integrated multidisciplinary approach while previous projects have been rather one sided, with either cockerel exchange programmes or vaccination campaigns.

Globally the number of people living below the poverty line amounts to more than 1 billion. Based on experiences mainly from Bangladesh, 10% of these, equal to 100 million persons or about 15 million households, are a potential target group for smallholder poultry development projects.

Socio-economic surveys from Bangladesh strongly indicate that being involved in the process of establishing and operating a small flock of poultry is very educational. The women learn the value of proper finance- business- and production management and are able to manage themselves out of the poverty circle (Alam, 1997 and Nielsen, 1996).

The semi-scavenging poultry model developed in Bangladesh, supported by Danida and IFAD, has proved to be an effective instrument with which to commence a rural development process. The target group is the hard core of poor in rural areas and mainly women. The model (Saleque, 1996) is, as such, fully in line with Danida's development policy (Jensen, 1996).

In Bangladesh the model is an integral part of the prevailing NGO-GO structure, a structure which is specific for Bangladesh. Consequently, the model needs to be modified to fit the structure prevailing in other countries before it can be replicated. The smallholders (the women with 10 hens) in the Bangladesh model constitute about 95% of the total beneficiaries in the poultry chain, and this part can probably be replicated, more or less unchanged, in other countries. The main modifications will most likely be related to the supply, service, and institutional structures.

The model in Bangladesh is a multidisciplinary concept in which an integral smallholder poultry chain constitutes the income generating activities, and empowerment of women through group work, awareness programmes, and training, constitutes the learning process.

The concept operates on free market conditions, and subsidies are not involved at the beneficiary level. This implies an efficient implementing organisation (NGO), because the operational costs of the NGO have to be paid for by the beneficiaries themselves.

The strategy behind the model is establishment of an enabling environment at the village level, in which a number of small income generating activities, operated by the beneficiaries themselves, constitute the production, the supply and the marketing side. The service side is NGO responsibility supported by the Government Systems. It comprises group formations, awareness and empowerment programmes, training, savings and credit schemes and extension support.

The institutional implementation capacity is an essential part of the concept in order to reach a large number of beneficiaries and to provide the services at a cost they can afford.

The International resource base, in this specific field, is limited, but Denmark has a number of comparative advantages to be a leader in this field. Danida supports the poultry development in Bangladesh and is planning to support a similar concept in other countries; furthermore poultry holding is emphasised in Danida's Livestock Sector Policy. The RVAU has been and is currently involved in a series of projects related to rural scavenging poultry. A collaboration between the RVAU Veterinary Faculty in Indonesia and Department of Veterinary Microbiology has developed on the biological control of poultry helminths. Furthermore, two poultry projects related to rural scavenging poultry and financed by Danida have commenced. Currently two PhD-studies are related to rural scavenging poultry: one at RVAU and one at the Sokoine University of Agriculture, Tanzania. And finally, no other countries currently have an institutional capacity of any importance in this field.

Danida and other donor agencies have recognised the potential of the concept in poverty alleviation programmes, especially in rural areas. It has also been recognised that the human resource base, in developing countries as well as in donor countries, needs to be enhanced before commencement of a comprehensive dissemination programme.

Rural poultry context

Poverty alleviation

Ideological perspectives on development have changed once every decade over the past 40 years. Goran Hyden (1996) in the book *Leading Issues in Development Studies* has identified the development framework as: trickle down effect in the 60s, basic needs in the 70s, small is beautiful in the 80s, and enabling environments in the 90s. The vision has over the years been the same - poverty alleviation - but the strategies to reach this goal have changed.

Poultry have always, in the development context, been associated with the poor. However, the strategy in poultry projects to reach the poor is still, in the main, the same as in the 50s: Establishment of a distribution system for a cockerel exchange programme or modified to be distribution of 8 weeks old chickens, or distribution of vaccines through the extension system, and then the trickle down effect is expected to take place, but this has never materialised.

The model developed in Bangladesh has the poor directly as the target group, and the strategy is based on establishment of all activities needed at village level to establish and to maintain a small flock of chickens, and teaching the villagers to use the system, which is in full accordance with current development strategy, i.e. creation of an enabling environment.

Poultry are a unique instrument to reach the poorest segment of the rural population. Every family, even the poor, has or has had a small flock of chickens. They may not be aware of the possibility of using chickens as a cash income activity, but a small flock of less than 10 hens can double the family income just by introducing a few management activities. Furthermore, poultry development can be divided into a chain of small enterprises for supply and services, all based on commercial conditions. Poultry keeping can be institutionalised in such a way, that 10 to 20% of the rural poor can be directly involved in poultry production within a ten-year period.

Experience from Bangladesh shows, that involvement in the poultry model can be a first step out of the poverty circle, and that the beneficiaries on their own take the next step by using their experiences from the chicken programmes. Helen Todd (1996) in a critical evaluation of a group of women with ten years' membership of the Grameen Bank also shows the learning value of being involved as an entrepreneur. The poor have indeed learned to take a calculated risk and *they do it*.

Rural poultry

Poultry plays, and always has played, an essential role in the rural societies, as Kornel Das (1995) has expressed it in his book - *Livestock and Poultry Dynamic in Tribal Life* - 'Social emotions of societies remain mostly hidden at the planning stage, although these in the majority of cases act as 'Killer assumptions' of the total project, during implementation'. This shows both the social value of the chickens and the risk of intervention. However, it is possible to introduce new breeds and methods without removing the traditional breeds and without interfering with the traditional use of poultry.

A symposium held at the Poultry World Congress in New Delhi in 1996, had focus on traditional poultry keeping and the potential for using poultry in development programmes. The overall

conclusion of the seven papers presented was that the knowledge and human resource base in this specific field are very limited and scattered.

Scavenging poultry account for by far the largest number of livestock in developing countries, but they are largely neglected as an income generating activity by the *development community* and by the *poultry holders* themselves. The donor organisations employ a number of livestock specialists, but they are mainly specialised in cattle, fish etc. and even FAO has on its staff only one half-time poultry specialist.

Experiences however, especially from Bangladesh, but also from other countries, show that a few low cost interventions to improve the traditional poultry system can double family income. At the Animal Science Congress held in Bali in 1994 there was presented a number of papers on village poultry. The impact of a few low cost technologies is illustrated in table 1.

Table 1. Mortality and growth rate to 8 weeks of age

<i>Treatment</i>	<i>Mortality rate (%)</i>	<i>Weight in grams</i>
Village, control	46	126
Creep feed. Household refuse	31	132
Creep feed. C. Protein, 15%	6	220
Creep feed. C. Protein, 26%	20	330

Source: Roberts ET al., 1994

The data in table 1 clearly demonstrate the potential for improvement of traditional poultry holdings.

Research targeting traditional poultry holdings is, in contrast to research targeting commercial and backyard poultry keeping, scattered and uncoordinated. Even though, the basic disciplines such as veterinary science, genetics and physiology are the same for traditional and commercial poultry keeping the management disciplines are completely different and experiences from the commercial sector are of little use within the smallholder framework.

The poultry sector in general and rural poultry in particular are a neglected sector and sub-sector and a low prestige area for students as well as for development workers. There are no international institutions, which have traditional poultry as a main activity, and even the International Livestock Research Institute has cancelled all its poultry activities. This oversight must be seen in the light of the fact, that traditional poultry is, by far, the most common livestock activity undertaken by the rural poor.

Institutional support - LDCs

Transformation of the village poultry system from subsistence to a cash generating activity will require organisation building and institutional development, particularly for input supply,

marketing, group formation and awareness programmes, extension services, training, and micro-credit schemes.

The non-governmental organisations (NGOs) are, in view of the NGOs' role in poverty alleviation, an essential factor in dissemination of the Smallholder Concept. In Bangladesh the leading NGO has developed an institutional capacity to establish more than 200,000 smallholder units per year. However, in other countries the institutional implementation capacity has to be developed either as a separate institution or as an activity attached to an existing local NGO.

In many countries the government has realised the appropriateness of co-operation with the NGOs and the private sector in poverty alleviation programmes. However, the governments have often been unable to modify their activities from an original situation in which the extension officers have the direct contact with the beneficiaries, to a more recent situation in which the NGOs are going to take over this function. The transformation of a government's institution to enable it to act through a non government organisation is an essential aspect, and a challenge, in the institutional development process, and unfortunately practical experiences to guide such a transformation are very limited.

Institutional support - donor countries

An awareness of using poultry in poverty alleviation programmes is emerging, especially in the development community and in grassroots organisations. Danida is at the forefront of this development, but also the Asian Development Bank (ADB) has changed its strategy in Bangladesh, from previously supporting the capacity building of the Department of Livestock Services (DLS) to now, together with Danida, supporting the NGOs and the poultry programmes. IFAD has also learned from its experiences in Bangladesh and now has a more multidisciplinary approach to the poultry component in rural development programmes. FAO is in the process of including poultry in a special programme for food security and supports some pilot projects with village poultry keeping. Furthermore, FAO supports the African Network for Rural Poultry Development and support a research programme in Africa to investigate ways of stimulating evolution of the chicken production system into a more productive market-oriented system. The Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) has had good results with a village poultry development project in Vietnam, in which training of the smallholder was included in the project activities. CIRDAP is interested in expanding its poultry activity, but does not have the institutional capacity to do so. The World Food Programme is one of the pioneers in Bangladesh in supporting small scale-poultry keeping as an integral part of its Food for Work Programmes, and more than 300,000 of the poorest families are now participating in the programme.

The SLDP in Bangladesh is by far the most thoroughly analysed project of its size. It has been through two comprehensive impact studies and two review analyses. The conclusions are unambiguous: the standard of living of the beneficiaries has increased considerably after being in the programme for only two years, and the women's position in the family has improved.

The main constraints for further dissemination of the Concept, inside and outside Bangladesh, are related to the human resource base and to the institutional capacity. The use of poultry as an instrument in poverty alleviation is now recognised by the development community and by several developing countries. However, the initiatives for enhancing the human resource base and the institutional development are scattered and uncoordinated.

The Danish Network for Poultry Production and Health has emerged because of the obvious need for an institution to enhance the human resource base, to co-ordinate poverty alleviation programmes based on rural poultry keeping, and to accumulate and disseminate experiences from previous and ongoing projects.

Paradigms

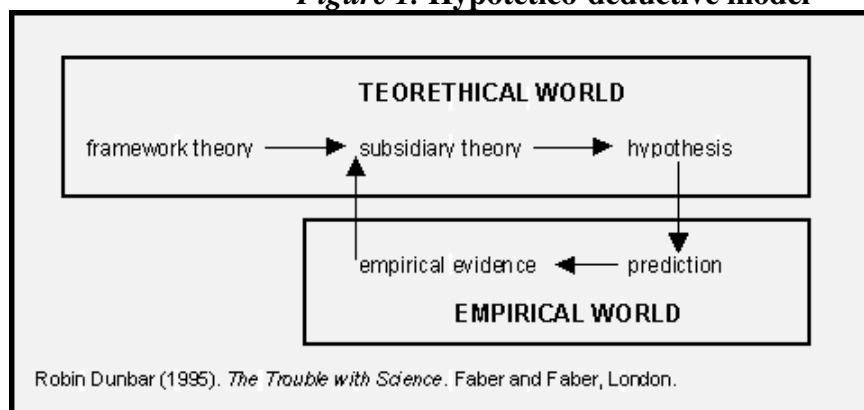
Paradigm development

The paradigm in use in the eighteenth and nineteenth century was a linear one:

observations — hypotheses — tests

The scientist accumulates observations until he has enough to warrant drawing a generalisation (hypothesis), which he then tests against new observations. This paradigm can only operate under controlled conditions with very few variables, in fact, far away from field conditions.

Figure 1. Hypotetico-deductive model



During the twentieth century the scientific paradigm shifted to a circular concept with a sharp split between the world of theory and the world of empirical data as illustrated in figure 1.

The concept, known as the 'hypotetico-deductive model', is mainly used in natural science. However, the model has many similarities with the development paradigm:

Theoretical world	vs.	Project planning
Empirical world	vs.	RRA; PRA; Impact surveys, etc
Framework theories	vs.	Project concept
Subsidiary theories	vs.	Project activities
Hypothesis	vs.	Objectives
Predictions	vs.	Indicators
Empirical evidence	vs.	Socio-economic observed changes

Robert Chambers (1997) defines a paradigm as:

A coherent and mutually supporting pattern of concepts, values, methods and behaviour, amenable to wide application.

This is in many ways in agreement with Thomas Kuhn (1995) if 'amenable to wide application' means a school or institutions where lessons learned are digested and disseminated.

There is, as such, an ongoing paradigm development process in development disciplines, which in many ways can be compared, to scientific paradigms. In some areas such as project planning (Logical Framework Approach) and structural adjustment, a framework has been developed, values have been set, and wider applications are in force. However, in the field of project related development the paradigm is much more diffuse, especially within the livestock sector.

The main constraints in establishment of project related paradigms are:

- The absence of a mutually agreed pattern of concepts or a framework model.
- Institutional procedures in which the framework model is developed in a Darwinian fashion, which means mistakes, interact with the framework activities instead of the framework model.
- Institutional set up for wider application.

Proposed network paradigm

The activities of the Network will be carried out in a framework paradigm in which the Model from Bangladesh serves as the Framework concept. A number of subsidiary activities constitute the framework concept. The priority of these activities will vary from country to country and of course the content of the activities may differ as well. They may evolve from induction based on an accumulation of observations from the specific country itself and from other countries in which the Concept has been in operation.

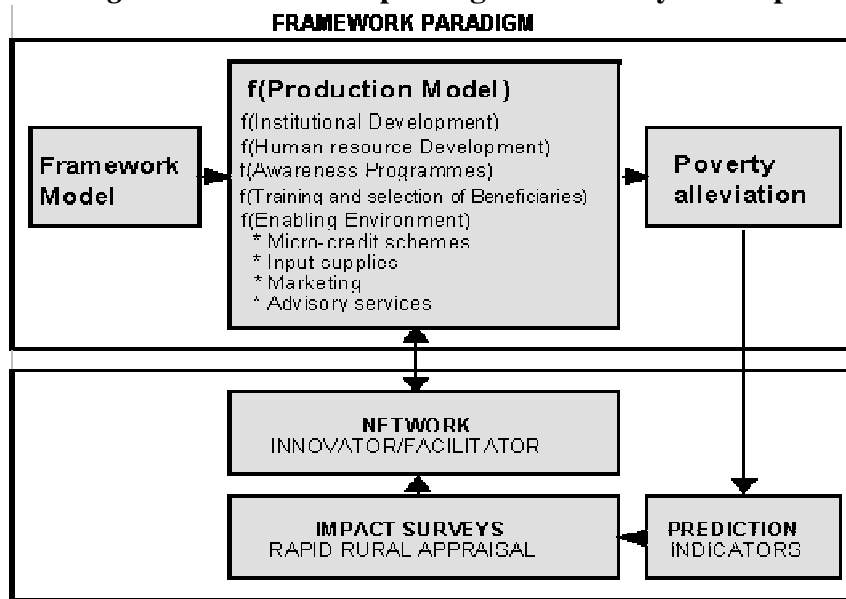
The structure of the paradigm is illustrated in figure 2. In effect the paradigm is circular rather than linear. It involves two quite distinct but parallel operations, the planning operation based on expectation and the field operation based on empirical observations. The framework concept, in other words, is a feedback process, which learns from its own mistakes. The learning process goes for conception of projects in new countries, for replication of the concept within a country, and for improvement of ongoing projects.

A paradigm like this can only be applied in cases where several projects of the same type are planned to be implemented, because the concept is continuously developed and refined, based on accumulated experiences from previous and ongoing projects.

Prerequisites for such a concept are an institution or similar organisation in which a) observations and experiences can be accumulated and transformed into new projects, b) new innovations can be disseminated through education and through communication with dialogue and reference groups, and c) research and development can be initiated and co-ordinated with continuous refining of the concept.

The Network for Poultry Production and Health is established with the intention to carry out these functions and thereby be the institutional innovator and facilitator for dissemination of the concept to a number of developing countries.

Figure 2. Framework paradigm for Poultry Development



Proposed network structure

Organogram

The proposed structure of the Network is divided into the Board of Directors, an operational section, and Network Advisory Groups, as illustrated in the Organogram, figure 3.

The operational section constitutes the implementing body for activities undertaken by the Network. The Network Advisory Groups (NAG) are open for membership for all and constitute partly a reference forum to draw upon for specific subjects and activities and partly a dialogue group (mailing list) for testing new ideas and for dissemination of innovations. The daily tasks are directed by the management and carried out by three co-ordinators.

Figure 3. Organogram



Network supporting groups

The supporting groups constitute the main professional body of the Network. The groups comprise all, including individuals, with an interest in rural development based on small-scale poultry holdings. The supporting groups will perform essential functions as human resource bases, as forum

for dialogue, as reference groups, and as the basis for a mailing list and thereby as facilitators for dissemination of innovations.

Proposed activities

The Network has a three pronged strategy for dissemination of the smallholder concept. a) human resource development, b) research and development, and c) project planning and support.

Human resource development

The human resource development activities will target (a) the Danish resource base, (b) the international development community, and (c) the project staff, in a broader sense, in connection with development projects.

The activities comprise:

- i. training programmes for Danish development workers and the Network staff;
- i. MSc and PhD courses in Denmark for students from Denmark and other developed countries and from developing countries;
- i. collaboration with universities and educational institutions in developing countries, for activities such as curriculum development, teacher exchange programmes, etc.; and
- i. workshops, publications, seminars, etc. in Denmark and in the developing countries.

The Network will be a school for researchers and it will draw upon international specialists as visiting professors and researchers and PhD students in its effort to create an international development environment in the daily work.

Research and development

The objectives of the activities are:

- i. identification of areas for applied research related to the SLDP-concept;
- i. elaboration of implementation procedures for participatory research programmes; and
- i. provision of methods for dissemination of innovations.

The research activities are planned to be carried out as: (a) an integral part of the M.Sc. and PhD courses, (b) an integral part of the development projects, and (c) funded projects from sources such as (RUF, CGIAR, ENRECA, NATURA, IFS etc).

Project planning and support

The project planning and support is intended to target the donor agencies and the Consulting Companies.

The main objectives are:

- i. to accumulate experiences for project formulations through a feedback deductive concept
- i. to be subcontractor for Danida in order to organise and prepare documents for project formulation and project implementation.
- i. to be technical backstopping institution for ongoing projects, mainly to Consulting Companies and to Project Implementing Units.

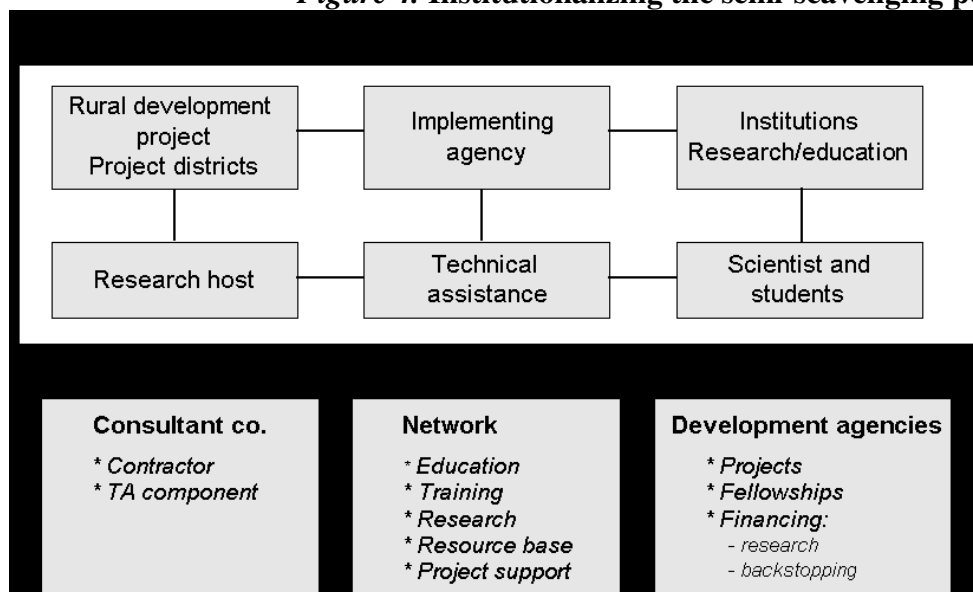
Institutional collaboration

The Network will have a close collaboration with the institutions in the recipient countries with the development project as the focal point. Furthermore, traditional twinning will be a part of the Network’s activity.

The Network will, as shown in figure 4, be the facilitator in project implementation and not the contractor for Technical Assistance. However, the Network has a function as a resource base for technical support to other institutions as well as to Consultant Companies.

Through the Network Advisory Groups, there will be a close institutional interaction for further development of the framework paradigm.

Figure 4. Institutionalizing the semi-scavenging poultry model



Justification

Demand

During the period 1960 to 1993, real GDP per capita has increased from US \$ 950 to 2,700 for all developing countries while the increase for the Least-developed countries (LDCs) amounts to only US \$ 320 from 580 to 900 US \$. In the LDCs the vast majority of the population lives in rural areas

and has agriculture as by far the main income activity. Among the poorest segment of the rural population the main income activity is as day-labour for the better-off households of the villages. As long as there is an excess of poor labourers wages will be kept at an absolute minimum (Foster et al., 1992). The only income generating activity which has the potential to reach the majority of the rural poor is livestock, and for the very poor and often landless, poultry is, without any doubt the best starting point up and off the poverty ladder.

With no exception, everybody agrees on the demand for a concept, like the Smallholder-Concept, which is an opportunity for the very poor, and reviews and impact surveys from Bangladesh have provided documentation for the impact on the beneficiaries' standard of living.

Potential

The number of the world's poor living below the poverty line is estimated to be to more than 1 billion, of which at least 100 million are potential beneficiaries for the Smallholder-Concept.

Previously, Rural Development Projects, which have an integrated approach, have been the dominant conceptual approach for reaching the rural poor. In the period 1973 to 1986, the World Bank lent US\$ 19 billion for five hundred rural development projects (Chambers, 1997, p.17). The overall outcome was a large portion of failures. The Bank's own evaluation concludes that there are many lessons to be learned. They include problems arising from:

- institutional and managerial complexity;
- lack of the viable technical packages (which had been assumed); and
- supply-driven lending, high targets, and urgent large-scale action without pilot projects.

The World Bank example shows both the potential for a project concept targeting the rural poor on a larger scale and the risk for not having a concept which predicts reality correctly and in due time in order to adjust the concept accordingly.

The Smallholder-Concept, as it is planned, has such an in-built feedback process in order to learn from its own mistakes and make corrections accordingly, not in the concept but in the activities. Furthermore, the problems above identified by the Bank are successfully avoided in Bangladesh due to the presence of an NGO with the institutional capacity and managerial capability, a viable low-cost package for income generating activities, and a demand-driven small loan lending strategy.

Institutionalisation

An institution with a multiple approach encompassing human resource development in developing countries as well as in developed countries, research and development, and project support, is a new invention in the development community. There is however, a need for an institution to develop and promote the Smallholder-Concept. Previous development projects involving poultry strongly indicate the need for the multiple approach in order to obtain a positive impact on poverty.

The project support especially is a new element as an integral part of education and research. The rationale behind this, is the wish to have a complete paradigm within the same institution with a feedback process build in for rectifying and correcting failures in project activities, and in subsidiary theories related to the production model. Furthermore, Danida's job rotation policy

makes it more or less impossible to establish the institutional capacity to accumulate specific experiences within Danida and to implement a project concept such as the Smallholder-Concept in the scale intended with the Network.

To institutionalise the Smallholder-Concept is not without risks. However, the main risk is the time factor. The positive result from Bangladesh is widely known, in donor agencies and in the developing countries, and the Concept will, with or without the Network, be implemented over the next five years. Observations made during the needs assessment missions in other countries strongly indicate that the planned projects, with inspiration from the Bangladesh results, will be a failure, because they don't have the multiple approach described in this document. If nothing is done, the current positive interest in the Smallholder-Concept will turn into negligence and poultry will remain as a neglected activity in the development community.

The planned operational staff of the Network will function independent of institutions and organisations, which will facilitate a development environment of its own, independent of education and research institutions. Furthermore, the staff needs to have a certain volume from the very beginning, in order to establish the development environment and to establish the institutional capacity to fulfil the objectives of the Network.

It is stressed that no other institution exists in developed or developing countries with rural poultry holding as its main objective.

Main constraints

The main constraints for establishment of the institutional capacity for implementation of 1 million smallholders per year are related to the human resource base. Poverty, women, and poultry are all low prestige areas, and the existing Danish, and in fact the international, human resource base is limited especially for a combination of these three entities.

It is important from the very beginning to employ a motivated core staff to operate the Network and to develop a qualified core staff of development workers to implement the pilot projects.

It is also important through pre-project activities to establish the interest of the students in the Concept, because the future human resource base has to be developed through education and practical experiences in this specific field.

There is limited experience with an institution in which education, project support, and research and development are combined activities. Research and education are, however, a common combination and these two activities are the main sources for human resource development.

The time factor is a main risk; the interest in the concept is already established in several developing countries and projects will emerge with or without assistance from the Network. The risk is that these projects will not give enough consideration to the complexity of the institutional and the human resource development and consequently end up with the same results as previous projects, which focused on one activity only.

Sustainability

For the beneficiaries the Smallholder-Concept is a learning process, through group work, awareness and empowerment programmes, training. In a combination with practical experience participants will learn to utilise the system to work themselves out of the poverty circle.

For the villagers, the Smallholder-Concept is creating an enabling environment comprising activities for farm-input supply, credit, services, and extension services. All these activities operate on free market conditions and without any subsidies involved.

The poultry concept also operates on free market conditions and with lower resource consumption than industrial poultry production apart from labour, because most of the feed is obtained by scavenging.

The main part of the development support is used locally, the main part of the operational cost is procured in the villages, and the income is spent mainly in the villages.

For the beneficiaries there are no subsidies involved in the project period, which also will enhance the possibilities for a sustainable post project period.

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