The Interbull meeting and 33rd session of ICAR were held in Interlaken, Switzerland from May 26 to 31, 2002. In this connection a joint ICAR/FAO seminar was conducted to discuss how sustainable livestock development can be enhanced in developing and transition countries through efficient organization of animal recording and skills development. The seminar referred to ICAR’s earlier efforts to develop approaches and solutions in smallholder production environments for animal performance recording in the South and East:

- Cattle identification and milk recording in central and eastern European countries, Warsaw, Poland, 1998.
- Developing breeding strategies for low input animal production environments, Bella, Italy, 1999.

After the opening of the seminar by ICAR president J. Crettenand, the global context, the frame conditions and the recent trends were introduced by three papers (J. Maki-Hokkonen, FAO; T. Vares, FAO; T.W. Schillhorn van Veen, World Bank). Two review papers discussed the development trends in livestock identification and recording (K.J. Peters; J. Phelan) and seven case studies illustrated and discussed approaches and experiences in relation to efforts to improve animal recording systems in transition and developing countries, focusing mainly on smallholder systems in cattle, goats and sheep. The case studies were presented by R. Cardellino, FAO/Uruguay; C.T. Chacko, India; M. Klopcic, Slovenia; A. Kretov, Kyrgyzstan; B. Moioli, Italy; N. Mpofu, Zimbabwe and R. Sadek, Egypt. The presentations were followed by a structured plenary discussion. A summary, major conclusions and recommendations were presented in the plenary session along with the presentations of the ICAR sub committees, task forces and working groups.
Summary and conclusions

The rapid increasing demand for animal products in developing and transition countries has been widely discussed in the recent years. Delgado’s predictions are starting to become reality as a recent update of the data of the 1999 publication (Delgado et al. 2001) reveals. There is an increasing concern for livestock and environment issues. The introductory papers referred to the Livestock Environment and Development initiative (LEAD) which is specifically addressing livestock environment interactions in developing and transition countries. Furthermore, there is increasing concern for food safety which calls for better methods to trace livestock and livestock products. There also is growing concern in view of the trend that rural smallholders are being increasingly marginalized in spite of a rising demand for livestock products in developing and transition countries. This trend expresses itself as lack of access to inputs and markets for smallholders, due to an array of reasons such as remoteness of the smallholder dwellings, missing quality standards and erratic supply potentials.

Global context, frame conditions and underlying recent trends

The inherited ownership structures in the transition countries are changing at a slower pace than expected. Real and tangible reforms take a lot of time. The major impact of the transition for the mainly small livestock keepers are the decreasing livestock populations and an almost total loss of the erstwhile markets. These developments lead to increasing poverty among the livestock keepers and to a migration to urban areas in some countries. The role of the livestock sector in the transition countries has shifted from being a major source for food and raw material (e.g. wool) to a role which, in addition to food and raw material, also includes risk aversion and social buffer elements. The aim clearly is, as stated in various case studies, to work towards the establishment of livestock as a significant source of income, without jeopardizing the presently very important social buffer element. While the introductory paper painted a rather gloomy picture of the livestock sector and specifically the animal identification and recording elements of livestock production, the case studies demonstrated that there are examples which prove that progress, though slow, is being made in various countries and programmes.

Trends in transition countries

Driving force for identification and recording needs. The driving force to start an animal identification and recording system often is a selection programme to develop and preserve local genetic resources for milk production. Organised dairy farming projects often start by identifying a suitable market, capable of absorbing increasing quantities of milk while in the case of life animals and meat the driving force for identification and recording systems often are requirements of export markets which demand traceable products. However, even in these contexts animal identification and recording do not always enjoy a high priority.
Benefits of identification and recording are not obvious to the smallholder livestock keepers. The seminar discussed the economic benefits of animal performance recording systems and concluded that there are more benefits of recording than just making genetic improvement possible. Examples of such benefits are management information and a higher value of the recorded animals in the market due to available performance records. This fact is not well understood by various stakeholders and needs to be communicated to all concerned more specifically. The quantification and documentation of such benefits must become a priority research issue. Economic models on costs and return on investment in animal recording programmes need to be developed and published.

Private public partnership. In the East and South the importance of efficient Private Public Partnerships (PPP) for livestock development and herewith for animal identification and performance recording has been stressed in various case studies and also in the discussion. There is a need to improve networking and make knowledge and experience available both to public as well as private institutions. There are indications, that private institutions are willing to pay for such services, provided the economic long term benefit can be demonstrated.

Legal and policy framework. Legal and policy frameworks and strategies often are not conducive for the new production systems in the transition countries. The debate in the seminar, whether to set priorities on developing “made to measure” policy frameworks or on the demonstration of functioning identification and recording systems, concluded, that both elements are important and that the best approach is to involve the policy and strategy makers into the development of the systems at an early stage.

Management and administrative effectiveness. Animal identification and performance recording systems, to be successful and to yield the expected results, need to be run efficiently and professionally. The seminar discussed the administrative effectiveness of government versus private structures. On the one hand, government structures often are not very responsive to the need of these systems, on the other hand, government needs to be involved both for the development of policies and strategies as well as for finance. The question was also raised how to improve systems which are well established but somewhat have become routine and are not developing any further without additional efforts and inputs.

Research needs. Clear and focused research and development priorities for identification and recording systems in CIS and CEE countries need to be established. Research priorities to establish a toolbox for identification and recording tools need to be established. An important tool will be the establishment of a system to efficiently and accurately estimate the costs of such programmes. Research is also needed to further develop adapted
animal identification systems, tuning cultural and traditional aspects with sophisticated technical solutions. To develop a set of ICAR standards which define optimal service packages including reporting and feedback mechanisms to the livestock keepers and defining adapted recording intervals, is another important area of research to be done.

**Demonstration and communication of economic benefits.** The demonstration of economic benefits of animal recording (recommendation of ICAR seminar, Anand 1997) needs yet to be done. On the one hand this should be a research priority, on the other hand it will be a big step ahead if successful cases are properly documented and are made available to a wide public via publications both printed and on electronic platforms. An important element in these documents will be recommendations on strategies on how to upscale and replicate successful pilot programmes.

**Sustainable use of domestic animal genetic resources.** In the context to support the development of sustainable livelihood systems in rural and often mountainous areas, the sustainable use of local domestic animal resources has become an important development issue. In order to do selective breeding within these indigenous breeds, these programmes need to apply identification and performance recording tools. This is another important reason why ICAR needs to continue its efforts to develop comprehensive animal identification and performance recording tools for smallholder livestock systems.

**Global network versus regional initiatives.** The global network (ICAR seminar proceedings, seminars, etc.) is appreciated. However there is an expressed need for regional initiatives in order to intensify the sharing of experience, to develop region specific solutions and to allow a larger group of persons to participate. The plenary discussion recommended to ICAR to explore the possibilities to establish such regional networks, possibly species specific, without abandoning the global platforms such as the Interlaken seminar. Such regional networks would need the support of NARS and regional research networks. The question on who will finance these regional initiatives remained unanswered.

**Overall recommendation.** The seminar recommended to develop model procedures on how to start animal identification and performance recording programmes. These model procedures with checklists for the major requirements and tested approaches could serve as a baseline. Case studies, as the ones presented in Interlaken, would then be used to refine and complete these model procedures. This approach over time, would result in a set of best practices, based on tested and successful field experience. The seminar concluded with the overall recommendation that the setting of proper research priorities and the question on how to learn more efficiently from each other’s experience need to remain in the centre of ICAR’s attention.