Review Article

Irreparable Global Spread of Pathogens and International Trade – Infection Monitoring

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Abstract

There is no systematic monitoring of global spreading of pathogens through international trade carried out by any organisation regulating world-wide trade in animals and their products. A critical evaluation of the impact of international trade provisions on global pathogen spread is missing as well. Data related to this kind of analysis are no more internationally collected. However, information on animal infection occurrence is of paramount importance for decision-making on animal health import conditions based on pathogen introduction risk assessment considering first of all the epizootiological situation in exporting countries. Actual international animal health information system covers just a small part of known animal infections and provides much less information on their occurrence and epizootiological characteristics than before (except for a few selected emergency infections). It provides the importing countries zero or insufficient data for objective risk assessment to avoid pathogen introduction through international trade. Illegal export/import is not recorded in any information system. The globalisation era trade requires much more efficient information system, including monitoring of global spread of pathogenic microflora through trade, as the basis for more effective international preventive and control anti-epizootic measures. There is an urgent need to re-establish animal health information system within the United Nations Organization as its inseparable component for follow-up execution of animal health technical assistance and global anti-epizootic programmes.

Key words: anti-epizootic measures; global bio-terrorism; global ecology; global pathogenic microflora; infection information systems; infection occurrence; invisible enemy; notifiable infections; pathogen introduction risk.

INTRODUCTION

Global epizootiological situation is deteriorating every day due to mass spreading of animal infection pathogens also through international trade in animals and animal products. This trade is regulated by: World Trade Organization - WTO (*“Agreement on the Application of Sanitary and Phytosanitary Measures – SPS Agreement”*) and Office International of Epizootics – OIE (*“OIE Animal Health Codes”*). Man-made spread of pathogens through international trade has not been evaluated by these organizations and therefore the member country governments and their inhabitants are not informed/alerted about potential irreparable consequences for the future. Necessary data for evaluating pathogen spread impact of the trade regulation provisions are no more internationally collected. Immense multiplying negative sanitary, economic, ecological and social consequences have been steadily growing. On the other hand, global animal disease eradication programmes do not exist (programmes against foot and mouth disease and “peste des petits ruminants” are in preparation). Globally eradicated animal infection was only rinderpest in 2010.

Intergovernmental organisations can publish only officially

reported data, reliability and completeness of which cannot be verified. The global collection, collation and publication of data on animal disease occurrence started in 1957 by the FAO/WHO/OIE Animal Health Yearbook Information System under the responsibility of the Food and Agriculture Organization of the United Nations (FAO). This system was combined with the previously established OIE information system. Up to 1996, both systems were very well coordinated by a tripartite commission composed of leading officers of participating organisations, including also World Health Organization (WHO). The leading officers were in contact with all countries through common correspondence on global information system, including questionnaires, instructions and enquiries about information needs.*). When the OIE took over the whole animal health information system, the FAO was deprived of necessary information for executing the follow-up programmes (e.g. in 1990 FAO Animal Health Service was backstopping 218 field projects in about one hundred countries). The tripartite FAO/WHO/OIE information system was abolished and replaced by an OIE system eliminating the former role of the FAO and the WHO.**)

*) The last common letter to all countries was sent in 1990 signed by OIE (L. Blajan, Director General), WHO (K. Boegel,

Chief, Veterinary Public Health) and FAO (V. Kouba, Chief, Animal Health Service).

**) That time the leading officers of the OIE (J. Blancou, Director General), WHO (F.-X. Meslin, Chief, Veterinary Public Health) and FAO (Y. Cheneau, Chief, Animal Health Service) were of the same nationality.

This paper attempts to document serious gaps in animal infection information system. It is based on data reported by the governments or by Chief Veterinary Officers (CVOs) to the OIE to be published in OIE World Animal Health yearbook (WAH) of two volumes - Reports and Tables, on OIE websites - "Help with World Animal Disease Status" (HANDISTATUS) and "World Animal Health Information Data" (WAHID) and up to 1996 also to FAO to be published in FAO/WHO/OIE Animal Health Yearbook. Statistical data were complemented by OIE individual country reports and in FAO/WHO/OIE Animal Health Yearbooks by almost one thousand explanatory notes together with analyses of global epizootiological situation. Illegal trade in animal commodities is not recorded in any information system which presents another problem. Selected literature sources and personal experience of the author who was responsible for FAO global animal health information system as former Animal Health Officer (Veterinary Intelligence), Editor-

in-Chief, FAO/WHO/OIE Animal Health Yearbook (1978-1983 and 1987) and OIE Expert for Information Systems, were considered as well.

In this paper "*infection*" means the entry and development or multiplication of an infectious agent in the body of humans or animals. It includes also "*infestation*" - the external invasion or colonisation of animals or their immediate surroundings by arthropods which may cause disease or are potential vectors of infectious agents.

Insufficient knowledge of animal infection occurrence in exporting countries

Globalisation of pathogen spread through trade depends firstly on epizootiological situation in exporting countries where existent infections are sanitary hazards and represent pathogen introduction risk for importing countries. Therefore, the importing countries need comprehensive information on animal disease occurrence in exporting countries. The basis for such knowledge depends first of all on primary reporting by animal owners identifying any suspect infection. However, they are often afraid to report the case to the authority because of the risk of restrictive measures imposed (e.g. herd isolation, exclusion from trade, sanitary slaughter, etc.) and call first a local veterinarian. He also sometimes hesitates to report the case to public authority being afraid of eventual strict anti-

Fig. 1. Last issue of global animal health yearbook published by the FAO

Fig. 2. Global animal health yearbook published by the OIE

epizootic measures. When the infection spreads further, the public animal health officer is called and revises the diagnosis and control measures. In case of doubt, specimens are sent to diagnostic laboratories for confirmation or exclusion of particular infection suspicion. The reporting to the national authority has usually a certain delay. Delayed information reduces its practical informative value when considering the dynamic of epizootic processes.

Examples: In the United Kingdom, delayed reporting of the foot and mouth disease outbreaks in 2001 took about 3 weeks thus facilitating infection spread through exported sheep certified as healthy to France and from there to Netherlands. In 2000, New Zealand reported *varroasis* for the first time (WAH 2000, page 20: “*investigation suggested that the parasite had been introduced three or four years before*”). Modernisation of the OIE information system caused enormous delay in issuing OIE World Animal Health yearbook 2005; OIE 2007 Catalogue: “*OIE World Animal Health 2005 is foreseen in March 2007*”; in February 2008 only 2004 issue was available to CVOs.

In case of confirmation of an internationally reportable infection the information is sent to relevant international organisation for global dissemination. The above procedure is usually valid for clinically manifested cases representing in overwhelming majority of animal infections only a small part of all affected animals (pathogen carriers). New emerging diseases pose additional problems in the information system. Real epizootiological multi-etiological situation at country level is usually unknown (except for a few emergency infections such as foot and mouth disease). Thus international trade in animal commodities not considering this reality in exporting countries facilitates mass spreading of pathogens into importing countries unable to assess objectively pathogen introduction risks and identify effective protective import conditions.

There were different approaches in collecting data on infection occurrence. FAO/WHO/OIE Animal Health Yearbook programme was collecting and publishing symbols of professional epizootiological estimates whereas OIE World Animal Health yearbook published also actual numerical data. However, at present, no country knows the number of affected animals and outbreaks of all internationally reportable infections. In many infections the ratio of real number of affected animals to *ad hoc* reported clinically manifested cases can reach a multiple of high values (“tip of the iceberg”). Invisible pathogens can be identified only by laboratory investigations.

Example: Toma et al. (1999): “*It is assumed that for every case of salmonellosis recorded in humans in the United States, at least nine are not reported.*” What about recording of infections in animals and that in less developed countries?

Active surveillance based on mass specific investigations (combining clinical with serological, allergic, microbiological etc. methods) of animal herds and populations provides the best

information on specific infection occurrence. After a recent drastic reduction of governmental animal health services in the majority of countries due to minimising their budgets (this happened under the pressure of global financial institutions dominated by almost the same countries as the OIE), this kind of surveillance almost disappeared. The information is based mainly on *ad hoc* reporting of clinically manifested cases or *post-mortem* pathological findings. The author’s proposal sent to OIE Headquarters (1/11/1994 and 16/12/1997) to include into the system the numbers of specific disease investigations was not accepted (Risk to discover minimal surveillance in exporting countries?).

More reliable and complete information on animal infection occurrence was available in countries with a strong, well organised and funded, centrally managed government animal health services independent on breeders, processing industry and traders. The main tasks were to protect animal health at country population level through free-of-charge regular preventive visits, systematic active control of multi-aetiological epizootiological situation and specific eradication measures supported by intensive surveillance investigations (including laboratory tests) to detect all specific infection outbreaks.

Examples: In Mongolia, in order to detect all herds affected by selected zoonoses, international expeditions of five countries during 1966-1968 carried out the following numbers of investigations: 5,046,070 in horses and 332,684 in camels on glanders by allergy testing (126,960 in horses also by complement fixation), 28,743,006 in cattle serologically on brucellosis and 3,408,875 in cattle by tuberculin (see more detailed information at <http://vaclavkouba.byl.cz/zoonoses-mongolia.htm>). In the Czech Republic during 1959-1968, in order to detect all affected bovine herds and to confirm specific disease-free status, annually there were carried out on average 5,030,449 tuberculin tests, i.e. ratio tests/population = 1.65 and 1,030,449 brucellosis serological tests, i.e. ratio test/population = 0.45. More details at <http://vaclavkouba.byl.cz/eradication.htm>.

Incomplete reporting for global information system on animal infections

Many exporting countries send incomplete reports making it impossible for importing countries to assess objectively pathogen introduction risk through animal commodity trade. Country governments (CVOs), before making any decision on sanitary conditions for animal commodity import, should compare actual and previous epizootiological situation in the exporting country with the domestic situation which is known much better. However, there are no two countries having the same epizootiological situation and conditions for pathogen spread and control. Such comparison is often problematic when comparing the occurrence of infection agents only and not also their types or subtypes or even mutant strains (drug-resistant, highly virulent etc.) which are not subject to international data reporting.

Examples of some *Salmonella enterica* serovars isolated for the first time from imported animals and their products in the Czech

Republic during 1987-1995: S.II, S.IIIa, S.IIIb, S.IV, Aarhus, Rideau, Potengi, Lagos, Ebrie and Bragny. Source: State Health Institute, Prague.

The importing country must consider also other aspects such as previous experience with a given exporting country to avoid notorious pathogen exporters. When data on infection occurrence in the exporting country are missing, then carrying out an objective risk assessment of pathogen introduction in importing countries is impossible. Lack of necessary information opens the “door” for multi-aetiological pathogen import followed by post-import spreading of particular diseases. Reliability and discrepancies of reported data represent further problems for pathogen import risk assessment. There have been different data available on the same phenomenon from different sources. The situation is even worse when a particular country does not provide any report (e.g., in 1999 almost one fourth of countries did not send new reports or only incomplete ones).

Examples: Impossible risk assessment and comparison of sanitary situation in 2005 between importing countries and New Zealand as the exporting country: “*There is no report for New Zealand*” (WAHID website dated 3 February 2007). In TOMA et al.: “*In 1996, the annual incidence of brucellosis-infected herds in France was approximately 300*”; however, the French CVO reported to OIE: “*number of bovine brucellosis new outbreaks = 582*”. Discrepancies between 2003 data on cattle populations reported by CVOs to OIE and by governments to FAO: United Kingdom – 1,669,617, USA – 1,200,000 etc. The author received an explanation e-mail from E. D. Gillin, Chief, Basic Data Branch, FAO: “*Such differences in data will always arise whenever you have two different bodies handling two different databases. Even in the USDA there exist different data sets for the same phenomena.*”

Reduction of reported data on epizootiological situation in exporting countries

In OIE World Animal Health 1997 yearbook a “new” significantly reduced list of disease occurrence codes appeared. This meant that much less information, needed for pathogen introduction risk assessment when importing animal commodities was available than before. The graduation symbols for disease occurrence estimates based on professional analyses, after decades of satisfactory practical

Table 1. Original FAO/WHO/OIE disease occurrence symbols (before globalisation era) deleted by the OIE in 1996

(+)	Exceptional occurrence
+	Low sporadic occurrence
++	Enzootic
+++	High occurrence
+-	Disease exists; distribution and occurrence unknown
)	Ubiquitous
!	Recognised in country for the first time
<=	Only in imported animals (quarantine).

Table 2. Country reports on the introduction of individual OIE list A diseases, world, 1980-2000 (Kouba V.: <http://vaclavkouba.byl.cz/disintrod.htm>)

Code	Diseases	Number of reports	%
A010	Foot and mouth disease	42	21.55
A020	Vesicular stomatitis	1	0.51
A030	Swine vesicular disease	5	2.56
A040	Rinderpest	37	18.98
A050	Peste des petits ruminants	4	2.05
A060	CBPP	20	10.26
A070	Lumpy skin disease	3	1.54
A080	Rift Valley Fever	1	0.51
A090	Bluetongue	16	8.25
A100	Sheep/goat pox	5	2.56
A110	African horse sickness	11	5.64
A120	African swine fever	12	6.15
A130	Classical swine fever	13	6.66
A150	Fowl plague	2	1.03
A160	Newcastle disease	23	11.79
TOTAL	15	196	100.00

application, suddenly disappeared instead of being further developed and made suitable for the incoming globalisation era. All disease occurrence symbols were replaced by one “+”. The “new” symbol did not differentiate the degree of disease occurrence, i.e. no distinction was possible between e.g. one imported animal only or million local animals. Thus, paradoxically, the importing countries have been obtaining much less epizootiological information than before the onset of computer era. Evaluating codes related to disease introduction from abroad, reflecting also multiplying sanitary impact of WTO and OIE trade provisions, were eliminated without any scientific justification (Table 1).

Note: The author himself tried to analyse global frequency of three selected codes up to end of the 20th century: “*Reported cases of disease/pathogen introduction in individual countries*” – 1,319 reports; “*Reported cases of newly introduced or re-emerged specific animal diseases in individual countries (including only cases of 3 and more years intervals)*” – 418 reports and “*Cases of specific animal diseases reported in individual countries for the first time*” – 485 reports. The analyses included also reports according to individual diseases and years. More in <http://vaclavkouba.byl.cz/disintrod.htm>. Table 2.

The codes for reporting infection occurrence, instead to be maximised for new and more demanding conditions of globalisation era, were illogically minimised as follows: The codes for positive occurrence: “+” *Reported or known to occur*; “+?” *Serological evidence and/or isolation of causative agent, no clinical disease; an optional qualifier for the above two positive occurrence codes*; “()” *Confined to certain zones*. The change started as one of WTO/SPS follow-up actions*). Author’s protest was answered by J. Blancou, Director General, OIE on 30/10/1998 that it was: “*the result of discussions by eminent specialists on risk analysis... to standardize risk assessment*”. How could pathogen import risk assessment be carried out without necessary information

on disease occurrence in an exporting country (a source of trade sanitary hazards)? This reflects the influence of major exporting countries having not sufficient knowledge on their own epizootiological situation and being afraid of monitoring pathogen export. Importing countries became “semi-blind” or even “blind” when deciding on animal commodity imports. After some further changes the OIE has established a system based on wording about present diseases such as “*Clinical disease*”, “*Disease limited to one or more zones*”. This has minimum informative value for importing countries. The exception is in a few emergency diseases where the OIE system is well elaborated, however, the report on the source of the outbreak(s) or origin of infection is usually “*Unknown or inconclusive*”.

*) Report on the meeting of the OIE Working group on informatics and epidemiology, Paris 1-4 October 1996 .

Lists of internationally reportable diseases

In 1995 (1990), there were following lists of internationally reportable animal diseases: 15 (16) diseases of the List A, 80 (95) diseases of the List B and 32 (31) diseases of the List C, i.e. all together 127 (142) diseases. Additionally, there were also data on 23 zoonoses in human population collected and published in FAO/WHO/OIE Animal Health Yearbook as an experiment. The OIE, after taking over FAO global animal health information system in 1996, abolished the List C.

Definitions: “*List A means the List of transmissible diseases which have the potential for very serious and rapid spread, irrespective of national borders, which are of serious socio-economic or public health consequences and which are of major importance for the international trade of animals and animals products*”. “*List B means the List of transmissible diseases which are considered to be of socio-economic and/or public health importance within countries and which are significant in the international trade of animals and animal products*.”

Later the classification of animal infections according to their importance was abolished as well.

From the DG OIE Editorials, April 2004: “... to establish a single OIE list of notifiable terrestrial animal diseases to replace the current Lists A and B. The aim is drawing up a single list to be in line with the terminology of the Sanitary and Phytosanitary Agreement (SPS) of the World Trade Organization, by classifying diseases as specific hazard and giving listed diseases the same degree of importance in international trade.”

However, the author studying the WTO/SPS found no indication requiring to abolish disease classification according to their importance. This change was favourable only to those exporting countries being unable to eradicate some List A diseases and wanting to export animal commodities without a need to eradicate these diseases.

The European Union and Italy could not confirm exporting animal commodities as from a territory free of List A diseases due to African swine fever in Sardinia. In OIE documents texts can be found that are “forgetting” (?) ASF risk from this island or to mark Sardinia in global ASF outbreak maps (last time at 82nd OIE General Session, 2014).

In 1998, the OIE abolished also the numerical disease classification and started using only verbal terms ordered by English, French and Spanish alphabets (not considering the difficulties for the majority of differently speaking countries) and thus seriously complicating pathogen introduction risk assessment for the importing country. This abolishment is difficult to understand in times of general digitalisation. In human medicine it would be absolutely unimaginable. The OIE has been “innovating” several times the names of many listed diseases (e.g. instead of simple “*classical swine fever*” is now “*infection with classical swine fever virus*” while “*African swine fever*” is without change; “*rabies*” is now “*infection with rabies virus*”; similar for more than ten other infections) confusing alphabetic orders. Why not respect the long established scientific nomenclature? The OIE information system is lacking stability and often also a scientific standard.

Example: The most important animal infection – foot and mouth disease – was always listed as the first one. In new order it was located in 10th place among 16 multiple species diseases (OIE Code 2006).

From the OIE lists “*leptospirosis*” as well as “*Teschen enterovirosis of pigs*” disappeared without any scientific justification and assessment of the risk for their spreading through trade. Both were eliminated also from the OIE Terrestrial Animal Health Code and thus abolishing recommendations for protective trade barrier against both diseases.

Leptospirosis, an infection important and dangerous also for humans and present for decades in List B (B056), was eliminated in spite of A. Thiermann (former US leptospirosis specialist) working as President, OIE Terrestrial Code Commission and of six OIE reference laboratories for this infection. Incurable killing *Teschovirus encephalomyelitis in pigs (Klobouk's disease)* was originally in List A (A140), then transferred to List B (B526), and finally disappeared without any justification and clearance by OIE reference laboratory. The author repeatedly wrote (last letter of 26 March 2001) to DG OIE asking to correct in the Index of OIE World Animal Health 1997 and, in subsequent issues a professional nonsense “*Klobouk's disease – see Rinderpest*”.

Some important zoonoses are not included in the OIE information system: several zoonotic salmonellosis, Ebola virosis, Lyme borreliosis, the plague etc. The infections missing in the lists of internationally reportable diseases cannot be current subject of import risk assessment, i.e. their pathogens can easily be exported and spread mainly when the grade of clinical manifestation is zero or minimal. These infections are usually not controlled in exporting countries and consequently not detected and blocked in time in importing ones. Special global monitoring of pathogen occurrence in imported products of animal origin requiring microbiological investigations is missing as well. Investigations of internationally reportable infections

Fig. 3. Global map of New world screwworm (*Cochliomyia hominivorax*) reflecting its inter-continental introduction from Latin America to North Africa through sheep export in 1988. Source: The New World Screwworm Eradication Program, North Africa 1988-1992, FAO, 1992

are supported by OIE Manual of Diagnostic Tests and Vaccines.

Examples: in 1988, Libya imported from Uruguay about 250 000 sheep; Libyan veterinarians visited this country to assess the situation for avoiding introduction of internationally reportable diseases; this import introduced a horrible myiasis – *Cochliomyia hominivorax*, never reported in the Eastern Hemisphere; this myiasis was included in the OIE List B diseases (as B060) as suggested by the author at 57. OIE General Conference, 1989. More in <http://vaclavkouba.by1.cz/SCREWORM1.htm>. (See Figure 3). From animal products legally imported to the Czech republic in 1995 *Salmonella* serovars were isolated 55 times; e.g. 5 times *Salmonella typhi murium* from United Kingdom and once in frozen liver from France (Konečný and Látová 1996). MacDiarmid (1992) listed 52 infections of livestock which may possibly be carried in carcasses, meat, offal or meat products.

Limited number of notifiable animal infections

There is no official international information about non-notifiable infection occurrence available. There are no organised specific surveillance investigations or any national control or

eradication programmes. Without specific epizootiological situation knowledge it is very difficult to guarantee specific pathogen-free export. In practice it means that the filter to avoid export of specific pathogens is leaky and has a negative impact on importing countries thus confronted with new problems that are usually difficult or unrealistic to solve. Almost in no exporting country are all internationally reportable infections obligatorily notifiable. In no exporting country a country-wide active surveillance system exists to detect all specific foci of all OIE listed infections. This creates a serious problem with the reliability of reported numerical data. Actual numbers of officially reported outbreaks/cases are usually lower than in reality (see Table 3).

Importance of reporting animal infections is underevaluated

Instead of collecting as much as possible epizootiological information to be available some very influential officers of the OIE HQs propagate a theory underestimating the role of this kind

Table 3. Numbers of officially reported present animal diseases of OIE international list, numbers of notifiable and non-notifiable diseases in selected exporting countries (OIE WAHID 2013)

Country	Number of present diseases	Number of notifiable diseases	Number of non notifiable diseases
France	45	21	24
Italy	32	21	11
New Zealand	19	4	15
United Kingdom	36	18	18
United States of America	64	17	37*)

*) According to HANDISTATUS II and WAHID anthrax present in animals in USA was during 1997-2005 non notifiable.

of information. This approach *de facto* supports pathogen spread through international trade due to “information disarmament” of importing countries. The “philosophy” that importing countries do not need to know real animal disease occurrence in commodity origin territory, means a conscious indirect support of export/import of non-healthy animals and non-pathogen-free animal products. This concept unilaterally favourable to major exporting countries is being imposed upon all countries in spite of OIE repeated proclamations such as “*Protecting animals, preserving our future!*”

Examples: “*The OIE is taking a new approach to setting standards and revising existing ones: the categorization of a country/zone status is first based on the assessment of the overall level of risk present in the country/zone or animal population, rather than on whether a disease has been reported or not.*” (A. Thiermann (2004). “*If, for a particular trade, we have available risk reducing tools (tests, treatment, whatever) which will reduce the risk by 10,000 or 100,000 times ... what does it matter what starting risk was?*” (MacDiarmid, actual Vice-President, OIE Terrestrial Animal Health Code Commission in a letter of 15/1/1996 sent to the author).

In other words, reporting of infection occurrence in exporting countries should not be of importance for importing countries to know about it. These countries themselves are expected to apply “risk reducing tools” in imported commodities containing pathogens. This is obviously the reason why S.C. MacDiarmid, the key initiator of abused non-quantifiable “*risk assessment*” method in trade, belonged among those who contributed to the abolition of regular reporting data related to infection introduction and to the reduction of infection occurrence grading. This “clouding” information for importing country decisions has been facilitating export of non-pathogen-free animal commodities. The tendency to minimise information on epizootiological situation is reflecting the fact that many major exporting countries have no precise data on animal infection occurrence in their home countries. They are unable to control the diseases and have serious difficulties in issuing certificates guaranteeing pathogen free status. More in <http://vaclavkouba.byl.cz/tradeinfo.htm>.

DISCUSSION AND CONCLUSION

International animal infection information system has been formally improved thanks to its modernisation exploiting

internet facilities and on-line communications. Appreciation merits OIE system related to some emergency infections using outbreak maps, immediate notification and follow-up reports, weekly disease information etc. However, paradoxically, in spite of this, importing countries have less key multi-etiological sanitary information for their decision on animal commodity trade than before. This fact has indirectly contributed to mass global spreading of the pathogens through international trade when governmental animal health services were minimised almost “*ad absurdum*” (barely enough for administrative activities). Therefore, in the majority of countries involved are these services unable to effectively supervise the “accredited” private professionals and diagnostic laboratories issuing sanitary attests and to control animal commodity trade on the spot. The situation is further deteriorating and becomes irreparable also due the fact that the number of national programmes for infection eradication in these countries is close to zero.

The OIE has been neglecting its role to monitor and analyse its trade provision consequences facilitating irreparable global spread of pathogens. Even in “*Terms of Reference*” of OIE global network of 247 Reference Laboratories and 49 Collaborating Centres, there is no monitoring of global spread of specific pathogens through trade included. The OIE instead of improving statistical information system to provide more and better information to member countries in connection with the new era of international trade, abolished the previous and functional system and replaced it by a new one providing less information for decision making on import conditions than before. This abolition was carried out without sufficient respect to information needs for international anti-epizootic programmes and for the decision on import conditions. Data on animal infection occurrence, instead of being further improved, were reduced and data related to infection introduction disappeared at all. Instead of facilitating importing country orientation when analysing the risk of pathogens introduction, the OIE system makes the decision-making process more difficult than before. The data, instead of being targeted at practical follow-up actions according to needs of individual countries, have been based on “ideas” of a very small group of theoreticians (having no responsibility for global health protection) and imposed upon the world

not considering practical multiplying impacts. Unnecessary information changes and requirements complicate the work of public animal health services in all countries.

The reduction of infection occurrence information has been contrary to OIE “*risk assessment*” method requiring a lot of information. The system must first of all serve to the threatened, i.e. importing countries. The OIE, as a non-United Nations intergovernmental organization, has never presented to member country governments any global analysis and information on mass long-distance man-made spreading of pathogens through trade. The OIE instead of trying to repair the damage caused by limiting and manipulating information for importing country decision-making, ignores the irreparable global mass spread of pathogens. The OIE itself, without member country government official clearances, has changed its name and programme including other veterinary problems (out of OIE international anti-epizootic duty/responsibility) being already “covered” by universities, scientific institutions and organizations, textbooks etc.

The global animal health programme executing organization was from the end of World War II the FAO while the OIE has been carrying out global professional information, methodological and advisory activities. Global animal health information system was understood as an integral component of the FAO system. Without reliable data on animal health in the world it is impossible to analyse the real situation and correctly identify the priorities for international operative actions and long-term programmes. The FAO lost its necessary influence on actual global animal health information system which now provides incomplete and underreported data on infection occurrence and spread. There is an urgent need to re-establish global animal infection information system of the FAO respecting its Constitution, Article I, Function of the Organization: “*I. The Organization shall collect, analyse, interpret and disseminate information related to nutrition, food and agriculture.*”, i.e. including animal health. To monitor and combat global spreading of pathogenic microflora, along with alerting all animal health services and world public, requires a maximum of useful information on animal infection occurrence. More information at <http://vaclavkouba.byl.cz/globsurveillance.htm>.

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