



Work Report 2016 of the ANTAM Secretariat

Presented by

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1. This annual report is prepared by the Secretariat of the Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) hosted by the United Nations Economic and Social Commission for Asian and the Pacific- Centre for Sustainable Agricultural Mechanization (UNESCAP-CSAM).
2. The report describes major developments in the implementation of programme activities of ANTAM since its 2nd Annual Meeting held on 3-5 December 2015 in New Delhi, India.

I. Review of the Technical Working Groups (TWGs) on Power Tillers and Knapsack Misters- Cum- Dusters

3. In March 2016, the ANTAM Secretariat welcomed additional representatives from China, Indonesia and Pakistan to the Technical Working Groups (TWGs).
4. The TWG on Power Tillers in 2016 is composed by the Chairman, Dr. Chandreshekar R. Lohi from India; Dr. Israil Hossain, Bangladesh; Mr. Chao Sinh, Cambodia; Mr. Chang Xiongbo, China; Ms. Uning Budiharti, Indonesia; Dr. Shabbir Ahmed Kalwar, Pakistan; Mr. Darwin Aranguren, Philippines, Dr. Vadim Pronin, Russia; and Dr. Anuchit Chamsing from Thailand.
5. The TWG on Knapsack Misters- Cum- Dusters 2016 is composed by the Chair Ms. Ayesha Herath, Sri Lanka; Mr. Zhang Xiaochen and Miss Zhao Xiaoping, China; Kamal Namal Agrawal, India; Mr. Mohd Fazly Bin Mail, Malaysia; and Mr. Ngo Van Phuong, Vietnam.

Establishment of the TWG on Paddy Transplanters

6. Based on a proposal from ANTAM Focal Point in Sri Lanka, in May 2016 the ANTAM Secretariat established a third TWG to develop standards to test Paddy Transplanters. The following experts have been selected to join the work: the Chairman Mr. Anuradha Wijethunga, Sri Lanka; Zhang Xiaochen, China; Mr. Jagjeevan Ram Narware, India; Mr. Mohd Shahril Shah Bin Mohamad Ghazali, Malaysia; Mr. Romulo Esteban Eusebio, Philippines; Dr. Isara Chaorakam, Thailand and Mr. Ngo Van Phuong, Vietnam.

II. Technical Consultations on ANTAM Codes Development

7. Between March and May the TWG on Power Tillers held 7 rounds of online technical negotiations to expand the Code and integrate the technical suggestions provided by focal points after the ANTAM 2nd Annual Meeting. Consultations focused on the addition of three more tests i.e. rotary shaft performance, vibration level and waterproof ability to better reflect the agricultural needs of participating countries and assure an enhanced level of safety and performance. The TWG completed a simplified test report to assist farmers in interpreting test results.
8. Between March and May the TWG on Knapsack Misters- Cum- Dusters held 7 rounds of online technical negotiations to integrate the technical suggestions provided by focal points after the ANTAM 2nd Annual Meeting. Consultations focused on providing the operator with necessary information on parameters adjustments and avoiding over use of chemicals. The TWG further refined the following tests: misting discharge rate, air velocity and air volume, ground deposition, vertical deposition, misting width, droplet size and droplet density.

9. The 2nd Meeting of the Technical Working Groups (TWGs) of ANTAM was held on 10-13 May in Bangkok, Thailand, at the United Nations Conference Centre. Representatives from 14 member states- Bangladesh; Cambodia; China; France; India; Indonesia; Pakistan; Philippines; Republic of Korea; Russian Federation; Sri Lanka; Thailand; Turkey; Vietnam- finalized the second versions of ANTAM Codes and test reports format.
10. Technical Consultations of the TWG on Transplanters started in May 2016. The Farm Mechanization Research Centre (FMRC) of the Department of Agriculture of Sri Lanka provided the first draft of the Code in form of tables based on RNAM Codes with inputs from the Japanese National Test Code for Rice Transplanter by Bio-oriented Technology Research. The TWG identified tests to be included and then wrote the Code.
11. The current draft of the ANTAM Code on Paddy Transplanters includes: i. General text, to identify the scope, references and terminology applied in the Code; ii. Checking of specifications, including verification of dimensions, construction materials, mechanisms, adjustments, and actuating forces; iii. Performance test addressing field and seedling conditions, transplanting patterns, operation speed, wheel slippage and uniformity of transplanting.

III. ANTAM Standard Codes 2016

12. By suggestion of the TWGs, and to conform to the international practice, the ANTAM Secretariat has started to number the ANTAM Codes by identification number and year.

Specifically:

the Code on Power Tillers is referred to as 001

the Code on Knapsack Misters- Cum- Dusters is referred to 002

the Codes on Paddy Transplanters will be numbered 003

ANTAM 001-2016

13. ANTAM Code 001-2016 was formulated by referring to relevant ISO and OECD standards and merged with relevant national standards from China, India, Indonesia, Philippines, and Thailand to reflect unique local conditions.

- Checking of Specifications
- Engine Performance Test
- Rotary Shaft Performance
- Vibration Level
- Drawbar Performance Test
- Turning Ability
- Parking Brake Test
- Noise Level Measurement
- Water Proof Test

ANTAM 002-2016

14. ANTAM Code 002-2016 is formulated by referring to relevant ISO and American standards and merged with relevant national standards from China, India, and Vietnam. It includes the following tests:

- Specification Check
- Engine Test
- Joints, Tank, Straps, Hose and Controls Test
- Blower Test
- Discharge Rate Test
- Misting / Dusting Range and Width Test
- Noise Test
- Endurance Test

IV. The 2nd Training of Trainers on ANTAM Standard Codes

15. In line with ESCAP Capacity Development Strategy and ANTAM work plan 2016, on October 18-30 CSAM organized the 2nd Training of Trainers to instruct Asian testing engineers on the application of ANTAM Codes 001-2016 and 002-2016. The activity was organized in collaboration with China Agricultural Machinery Testing Centre, Ministry of Agriculture (CAMTC/MOA) that provided generous financial support (all training materials including the agricultural equipment to be tested, lodging, meals, insurance, local transportation a part of the international trainers' fees).
16. The training involved a total number of 20 participants from Asia Pacific testing centres i.e. Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Nepal, Philippines, Russia, Sri Lanka, Thailand and Vietnam. The testing engineers benefited from the experience of four international trainers from China, France and India, contracted by CSAM and CAMTC.

17. In order to target specific country needs the training was conducted into two parallel sections: one group worked on testing of Power Tillers and one group focused on Misters- Cum- Dusters.

The first days were dedicated to theoretical explanation and study of testing procedures, including an overview of other international practices to emphasize the characteristics and needs of the ANTAM network. Afterwards, each participant was guided in the practical applications of the Codes.

Each participant was also guided in data gathering methods necessary for the completion of the ANTAM Test Reports. All the compiled test reports were submitted to the trainers for revision.

18. To maximize the benefits of the activity and promote knowledge sharing, the ANTAM Secretariat published 2 training manuals to guide engineers in the application of the ANTAM Codes.
19. In order to provide a complete overview of different testing facilities and expose participating engineers to the use of advanced technology, the group was invited to visit the testing facilities utilized by Changfa Agricultural Equipment Co., Ltd. a leading machinery manufacturer in China, which provides testing services to private enterprises.

VI. ANTAM Communication

20. The ANTAM website was officially launched (www.antam-network.net). The Codes, the test reports, all official documents and news related to the network have been regularly updated on the website.
21. At the 2nd Annual Meeting of ANTAM, in New Delhi, India in December 2015, member countries did not agree on the network logo. Thus, the meeting decided to launch a survey with new designs. After 2 rounds of survey, CSAM participating countries selected the design proposed by the Philippines as official ANTAM logo. At this stage, the Logo will be used in ANTAM related communication material, website and Codes. In the next phases of the project, the logo will be put on machinery that have been tested according to ANTAM standards of safety, efficiency and environmental emissions.

VII. International Collaboration and Outreach

22. The ANTAM Secretariat received enquiries and comments from the private sector on application of ANTAM Codes and procedures from Korea, India and Sri Lanka.
23. On May 23rd 2016, ANTAM Secretariat received a Japanese delegation at CSAM office in Beijing, China. The delegation was composed of two representatives from the Ministry of Agriculture, Forestry and Fisheries, Mr. Toshio Kurakazu and Mr. Kinya Uchida; two representatives from the National Agriculture and Food Research Organization, Institute of Agricultural Machinery, Department of Testing and Evaluation, Mr. Shimizu Kazufumi and Mr. Kawase Yoshiyuki; and one representative from the Japanese Embassy in Beijing, Mr. Yusuke Yamamoto. On October 6, 2016 Mr. Hideo Fukushima- Minister, Deputy Chief of Mission and Permanent Representative to UNESCAP from the Embassy of Japan in Bangkok- wrote a Note Verbale to Dr. Shamshad Akhtar to appoint Mr. Hiroshi Fujimura- Director General, Institute of Agricultural Machinery (IAM) as the officially designated ANTAM focal point from Japan. The appointment, is part of a broader effort undertaken by the Ministry of Agriculture of Japan to substantially increase Japan's contribution to the development of ANTAM.

24. On June 12, Nepal appointed a national focal point for the network. Mr. Ishwari Prasad Upadhyay, Chief of Agricultural Engineering Division (AED) of the Nepal Agricultural Research Council (NARC) will be the reference person for the ANTAM Secretariat.
25. One representative from the ANTAM Secretariat attended the OECD Tractor Codes Scheme Technical Working Group Meeting in Moscow, Russia, on October 6-7, 2016. The meeting was a valuable occasion to observe best practices in the OECD network. Specifically, the technical negotiation methods and structure. Moreover, as part of ANTAM Advisory Panel, the OECD Tractor Codes Project Manager reviewed the proposed work plan for ANTAM in 2017 and provided useful suggestions for the implementation.
26. On October 7, 2016 the Embassy of the Republic of Korea in Bangkok, Thailand, wrote a Note Verbale to UNESCAP to appoint Mr. Youg Lim Kim- Action Officer, Agro-material Industry Division, Rural Development Administration- as the officially designated ANTAM focal point from the Republic of Korea.



Thank You