"Needs Survey" under the Governmental Commission on the Projects for ODA Overseas Economic Cooperation in FY2012

Summary Report

Thailand · India · Brazil · Philippines

A Survey on ODA Needs for Achieving Equitable Access to Knowledge of Persons with Disabilities

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EX Research Institute Ltd.

Introduction

"Many people with disabilities do not have equal access to health care, education, and employment opportunities, do not receive the disability-related services that they require, and experience exclusion from everyday life activities. Following the entry into force of the United Nations Convention on the Rights of Persons with Disabilities (CRPD), disability is increasingly understood as a human rights issue. Disability is also an important development issue with an increasing body of evidence showing that persons with disabilities experience worse socioeconomic outcomes and poverty than persons without disabilities." – *World Report on Disability*

This survey examined the need for ODA in Thailand, India, Brazil and the Philippines to achieve the equitable access to knowledge of persons with print disabilities such as blind, low vision, dyslexia, autism, intellectual disability, psychosocial disability, physical disabilities that prevent manipulation of publications, etc.

Since international cooperation for implementation of CRPD is a global issue, surveys were conducted to collect the latest information on the Conference of States Parties to the UN CRPD, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the negotiations on the new copyright treaty for persons with print disabilities of the World Intellectual Property Organization (WIPO).

I. Current problems of access to knowledge of persons with print disabilities and possible solutions in the surveyed countries

The visits and dialogs confirmed that many people in every surveyed country are unable to access knowledge by reading text due to their print disabilities. In addition, multi-lingual situation considerably increases illiteracy rate. Therefore each surveyed country has 20% to 50% of the total population who do not have opportunity to acquire knowledge from publications.

Publishers and libraries are key players who are essentially responsible for provision of equitable access to knowledge in publications. However, they are not always active to implement the CRPD by deploying already established accessible electronic publishing standards such as DAISY and EPUB3.

There are successful initiatives to support blind and low vision people by provision of either digital talking books in DAISY format or braille on paper in each surveyed countries. Textbooks are relatively well covered by accessible alternative format publications but other reading materials necessary to guarantee education such as dictionaries and professional readings are far from sufficient. Provision of accessible reading materials for persons with print disabilities other than blind or low vision has been just beginning in each surveyed countries due to lack of recognition of their needs.

Copyright laws in most of the surveyed countries do not sufficiently harmonize rights of access to knowledge of persons with print disabilities and the rights of copyright owners. The proposed new copyright treaty for persons with print disabilities to be negotiated at the Diplomatic Conference of WIPO in June 2013 in Morocco will significantly impact on the situation.

All national libraries in the surveyed countries have legal depository system and are legally mandated to preserve all publications in the country and provide access to the depository collection to all citizens as requested. In order to meet this legal mandate, most of the national libraries have digitization projects of old publications that are no longer protected by copyright. Digitization of national libraries are commonly digitizing depository collections in high resolution bit maps without any measures to make it accessible for persons with print disabilities.

Those national libraries have digital library project based on web technology. Since all surveyed countries have ratified CRPD, which is legally binding, all web-based services must comply with Web Accessibility Guidelines. Digitized bit map copy of books in the digital library of the national library might be an infringement of the CRPD.

National libraries soon or later will request publishers to deposit digital copy of their publications which may be produced by conversion from publisher's electronic files. Almost all publishers have page setting electronic files for their publications on paper. In theory, publishers may submit digital files generated from the publisher's electronic file. If publishers have ability to submit accessible digital version of depository collections, this will help the national library to save resources for digitization.

When publishers have ability to produce accessible digital version of their publications, they have potentials to publish accessible e-books. In other words, accessible e-book publishing will make national depository collection accessible automatically if Digital Rights Management (DRM) does not block accessibility features. Business models are the most important determining factors for commercial publishers to shift to the digital publishing. The consensus

development to harmonize business models and the rights of persons with disabilities might require several years.

On the other hand, government publications on Disaster Risk Reduction, prevention of HIV and pandemics, and parliamentary records and papers, for example, the government agencies that are publishing those public documents wish to disseminate their publications as much as possible.

Taking all those factors into account, the survey team proposed a 10 years strategy to make all new publications accessible including transition plans. (Figure 1)
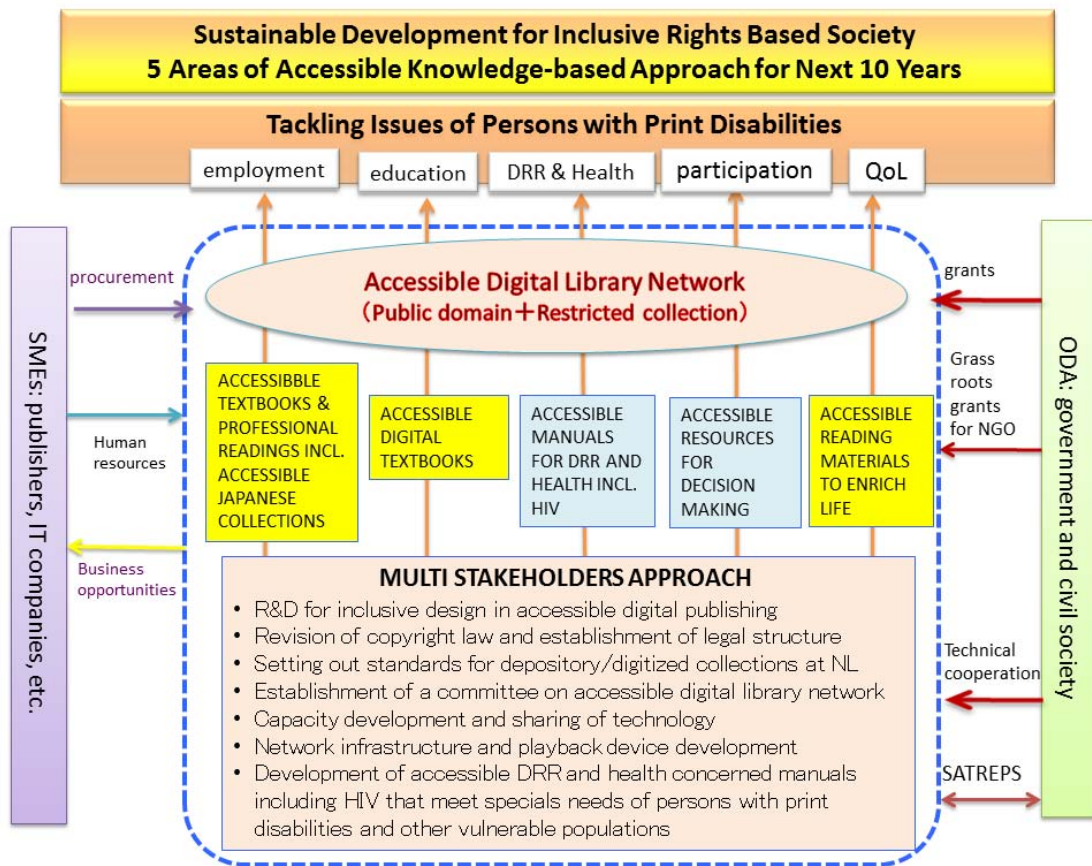

**Figure: Long-term strategy for achieving equal access
to knowledge for persons with disabilities**

This will ensure access to knowledge for persons with disabilities, while avoiding unnecessary duplication of the costly digitizing process. Digitalized publications and deposits in the EPUB3 format will then be promoted to all publishers, starting with public publications such as disaster prevention information.

Although this goal appears achievable in the next 10 years, there are various barriers to be overcome. Therefore, the survey team proposed that development should focus in turn on: 1) publications of central and local governments regarding disaster, health care and social welfare for society in general, 2) utilizing the plans to digitize existing collections and national libraries being carried out in all surveyed countries, and 3) conducting a pilot project with various stakeholders to establish a digital library network for accessible information on disaster, health care and social welfare. These efforts will help create the long-term strategy.

II. Reactions from the Governments of Surveyed Countries

The national libraries of all the countries covered by the survey agreed to the framework of the solution proposed by the survey team regarding the original mission of a national library to offer every citizen access to all publications. Although some national libraries were concerned about copyright issues in the initial stage of dialog, national libraries as well as disability organizations and disaster prevention bodies within governments supported the proposed solution. This is based on a system for sharing universal design knowledge covering disaster prevention- and healthcare-related information published by public institutions, which is mostly free of copyright issues and which should be urgently delivered to national libraries, in digital formats as DAISY and EPUB3.

With regard to DAISY, which Japan introduced nationwide at the beginning of the 21st century before other countries, and EPUB3, the global standard for electronic publishing developed based on DAISY, small and medium-sized companies in Japan have world-leading technologies, products and utilization know-how. Japan's unique technologies for processing contents and developing multimedia materials for disaster drills to assist those with severe mental disabilities, which were effective following the disaster on March 11, 2011, have attracted much demand from the surveyed countries.

III. Expected contribution of technology and products of Japanese small and medium-sized enterprises

This long-term strategy is based on the emerging trend—confirmed through this survey—that technologies globally validated through DAISY which provide access to knowledge for people with print disabilities have been transferred to EPUB3 as a business standard for digital publication. Thus, EPUB3 is rapidly becoming accepted by industry worldwide as an open

standard for an accessible format for digital publications. Publications will thus become accessible at the time of publication for people who have print disabilities. This will be achieved through combination of universal design produced by EPUB3 and assistive technologies such as Braille display and TTS (Text-to-Speech) engine.

Universal design products and technologies of Japanese small and medium-sized enterprises which have been developed for Japan's super ageing society will not only contribute to this pilot project which aims at equitable access to knowledge of persons with disabilities, but also help the sustainable development of target countries of the project by becoming their mainstream products and technologies in the following scale-up phase.

It was a Japanese company that developed the world's first commercial DAISY player and it was also a Japanese small business that launched the first DAISY playback application for the iPhone/iPad. This is no coincidence; historically, international standardization of digital talking books, which was started by the International Federation of Library Associations and Institutions (IFLA) in 1995, was led by a Japanese librarian. In addition, companies from Japan and Sweden, backed by development funds from the Japanese government for welfare devices, contributed to the development of the international standard. Meanwhile, the DAISY For All (DFA) Project, which expanded the use of DAISY in developing countries through a Japanese team and activities supported by the Nippon Foundation, carried out activities to support accessible knowledge with DAISY for visually impaired people in the surveyed countries including Thailand, India, the Philippines and South Africa.

In the development of EPUB3, research conducted with Special Coordination Funds for Promoting Science and Technology of the Japanese government is helping to develop SMIL3.0, the base for Media Overlays which is a feature of EPUB3. The R&D conferences held in 2005 in Tokyo and Urakawa-cho in Hokkaido were attended by five core members who are currently developing EPUB3. The Urakawa Project of the DAISY Consortium which originated from this research conference is helping to develop TOBI, an authoring tool for EPUB3. In addition, development aid of the Japanese government is playing a considerable role in international standardization activities to make EPUB3 compatible with Japanese writing style such as vertical writing and ruby.

IV. Expectations for Japanese ODA

Japan's experience in developing and distributing accessible digital publishing technologies and the global network it has created enabled the survey team to propose strategic and systematic

solutions, gain a consensus, and build long-term cooperative relationships with these countries.

For many developing countries, welfare for the disabled has taken a back seat to infrastructure development, and so these countries need to catch up. As EPUB3 is increasingly accepted by the electronic publishing industry worldwide, transforming the existing publishing industry and libraries into something more inclusive can give persons with disabilities greater access to knowledge. Nevertheless, to achieve this, it is essential to form a consensus and find common ground between the public interest of guaranteed right of access to knowledge and individual copyrights. Accordingly, the roadmap shown in Figure 1 shows long-term goals to be achieved within the next ten years, and a pilot project should be carried out to develop an accessible digital library network that provides copyright-free disaster management and health-related information. The national libraries of the Philippines and South Africa would like the pilot project to be started promptly, Thailand and Brazil are expected to follow suit after further discussions, and the Indian government hopes to start with NGO-level cooperation.

International cooperation in this area with a long-term perspective is applicable to many developing countries as well as those included in this survey. Small and medium-sized companies in this area can develop unique and long-term plans to expand into these countries by considering them as one big market with a global perspective, even though individual markets are small. Also, the development and distribution of accessible Japanese contents for the super ageing society of Japan are expected to drive technological innovation and the creation of good products. This will improve access to Japanese documents and literature that have been difficult for foreigners to understand, and help develop a new global academic network that centers around Japan.

As these findings indicate, Japanese small and medium-sized companies have excellent potential for global expansion. This will require assistance and closer links with the governments and NGOs of countries seeking Japanese technical cooperation and reducing barriers to entry into these markets, such as making these companies' products compatible with other countries and finding local business partners. Also, among Japanese ODA including disaster-related SATREPS currently underway, those that are not designed specifically for persons with disabilities should be immediately reviewed. Exploring needs based on improved access to disaster-related knowledge for persons with disabilities can quickly boost purchases of the products of Japanese small and medium-sized companies.

(Needs Survey) Thailand▪India▪Brazil▪the Philippines,
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SMEs and Counterpart Organization

- Name of SME : KGS Corporation, Antenna House, CYPAC, ATDO, Bethel's house
- Location of SME : Ogawa-cho Saitama, Chuo-ku Tokyo, Chofu-shi Tokyo, Kita-ku Tokyo, Urakawa Hokkaido
- Survey Site ▪ Counterpart Organization : National Libraries (Bangkok, Kolkata, Rio de Janeiro, Manila)

Concerned Development Issues

- People with print disabilities are excluded from access to knowledge in written format.
- There are people living with minority languages or indigenous languages, and illiterate people
- Thus 20–50% of total population are not able to read in those identified countries
- They are most vulnerable at disasters, excluded from decent jobs, and most vulnerable at disasters

Products and Technologies of SMEs

- Inclusive solutions based around universal design in combination with assistive technologies that have track record of contributions to guarantee access to knowledge of people with print disability
- Expertise in DAISY/EPUB3 in multilingual environment
- Best reliable braille cells

Proposed ODA Projects and Expected Impact

- Development of a national digital library network to guarantee access to electronic publications any time, any where for persons with disabilities.
- Japanese SMEs with world class competence in DAISY, EPUB, braille, education & training for persons with disabilities will collaborate with libraries to create a new paradigm of Access to Knowledge for All

Future Business Development of SMEs

- Since the library world is one of the most standardized, participation in collaborative development of Access to Knowledge for All will enrich the expertise, business model and the international market of SMEs.