Priority Assistive Product List of Nepal



Improving Access to Assistive Technology for People of Nepal



Government of Nepal Ministry of Health & Population Department of Health Services

Leprosy Control Division

Disability Focal Unit Teku, Kathmandu Nepal



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ACKNOWLEDGEMENT

WHO estimates that there are more than 1 billion people who would benefit from one or more assistive products. With population ageing and the increasing prevalence of non-communicable diseases across the world, this number is likely to rise above 2 billion by 2050, with many older people needing two or more products as they age.

The 2011 Nepal Census conducted by the Government of Nepal reported that 1.94% (513,301) of the total population of Nepal is living with some kind of disabilities. The number will be more if the 'functioning' status of the population is considered.

The unmet need for assistive technology of all kind is high even at the global level. Many people have little or no access to basic assistive products. While there are challenges such as standards and regulation, manufacturing, selection, pricing, procurement and supply, this priority list of Assistive Technology (AT) is the first step to meet the needs of the users.

This is a guiding document that will enable the Ministry of Health and Population and its partners in planning the delivery of services related to AT within the federal structure. It is in line with the Nepal Disability Act 2017 and WHO Priority Assistive Products List.

I would like to thank the team at the Leprosy Control Division (Disability Focal Unit), WHO Nepal, members of the Technical Working Group on AT and all stakeholders involved in the development of Priority Assistive Product List of Nepal.

The Ministry of Health and Population is committed to facilitate implementation of the guideline to improve outcomes on the lives of people with disabilities, senior citizens and others who will need assistive devices.

Dr Guna Raj Lohani Director General, DoHS



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ACKNOW PHEEMENT

It is our immense pleasure to publish the "Priority Assistive Products List of Nepal". Globally the need of assistive technology is rising due to the functional decline caused by ageing and disability. WHO estimates over one billion people may need one or more assistive products, but the availability and accessibility of assistive products to the people is limited for many reasons. Ensuring availability and access to Assistive Technology (AT) will in turn enhance access to education, employment and social participation of people from all spheres of life.

The Ministry of Health & Population, Government of Nepal, is committed to ensure that everyone has access to quality health service (Universal Health Coverage) and with the endorsement of Nepal Disability Act 2017, the right to access to assistive devices has been ensured. I believe that this priority list will guide the national, provincial and local bodies in the provision of standard assistive products and devices. These devices and technology are not only for mobility purposes but also for enhancing functioning in vision, hearing and communication, cognition and environment.

I would like to extend my gratitude to the WHO Country Office Nepal Team for their technical and financial support, Technical Working Group (TWG) on AT for their support in facilitating the consultative workshop with DPOs and other stakeholders, and for their relentless efforts from the conceptual stage until the finalization of the document, Disabled People Organizations (DPOs) and other stakeholders for their valuable inputs in prioritizing the Nepal-specific assistive products list.

I appreciate and acknowledge the support of my team – Dr. Rabindra Baskota, Mr. Randhir Kumar Yadav and the LCD staff.

Mohammad Daud

Director

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List of Acronyms

ACC: Augmentative and Alternative Communication

AFO: Ankle Foot Orthose
AP: Assistive Product
APL: Assistive Product List

ASR: Automatic speech recognition

AT: Assistive Technology

CBR: Community Based Rehabilitation CTEV: Congenital Talipes Equinovarus

DAISY: Digital Accessible Information System

CRPD: Convention of Rights of People with Disabilities

DPO: Disability People Organization

ENT: Ears, Nose, Throat

G/MoHP: Government/Ministry of Health and Population

KAFO: Knee Ankle Foot Orthose LCD: Leprosy Control Division

NGO: Non-Governmental Organization
NHRC: National Health Research Council

OT: Occupational Therapist
PDA: Personal Digital Assistant
P&O: Prosthetist and Orthosist
PPP: Public-Private Partnership
PWD: People with disability
SCI: Spinal Cord Injury

SDG: Sustainable Development Goals
 SOP: Standard Operational Procedure
 TLSO: Thoracolumbosacral orthosis
 TWG: Technical Working Group
 WHO: World Health Organization

1. Introduction

Globally, WHO estimates that over one billion people need one or more assistive products and the majority of these are older people and people with disabilities. Assistive products are not only for people with disabilities, but for everyone. As people age, their function declines in multiple areas and their need for assistive products (AP) increases accordingly. It facilitates and improves the participation of people in education, labor and leisure activities. With growing proportion of older people and the increasing prevalence of non-communicable diseases, the number of people needing assistive products is projected to increase to beyond two billion worldwide by 2050 (WHO, 2016).

The 2011 Nepal Census conducted by the Government of Nepal reported that 1.94% (513,301) of the total population of Nepal is living with some kind of disabilities. The data reflects the 'impairment' status, and in terms of 'functioning' status of the population, the number will be even more. The latter will give a better estimate of the number of people requiring assistive products & technology in Nepal.

Harnessing the potential of assistive technology is a viable and achievable means to fulfilling many obligations under the Convention of Rights of People with Disabilities (CRPD) and the Sustainable Development Goals (SDG). The right to access to assistive devices is ensured in the new Nepal Disability Act, 2017.

1.1. Current status of AP in Nepal*

- 1. Availability of AP is a key issue for disabled people, and private sector is the main provider
- 2. Quality is not ensured as there is no guidelines on 'standards' for AP
- 3. Lack of well trained professional, and no update on current developments in AP
- 4. Lack of knowledge and awareness on AP by the people in need
- 5. Custom clearance is a big issue for importing AP, components and raw materials

One of the recommendations by the stakeholder groups was to develop a national priority list of assistive devices.

*Report of the First National Review and Planning Workshop on Disability (August, 2017)

1.2. Purpose and scope of the document

This is a guiding document that will enable the Ministry of Health and its multi-sectoral partners in planning the delivery of services (in a federal structure) related to assistive products (AP). This is in line with the entitlements guaranteed by the Nepal Disability Act 2017, and the supporting policy guideline approved by the Government. This is an evolving document which will be reviewed, revised and updated periodically

1.3. Objectives

- a) To improve availability and accessibility to AP in Nepal
- b) To prepare country-specific priority APL with standards (& price) in line with global APL.
- c) To provide service delivery options (including road map) aiming at integrating services within the existing health care systems in the country.

Definitions

Assistive technology is the application of organized knowledge and skills related to assistive products, including systems and services. Assistive technology is a subset of health technology.

Assistive products is any external product (including devices. equipment, instruments or software), especially produced or generally available, the primary purpose of which is to maintain or improve an individual's functioning and independence, and thereby promote their well-being. Assistive products are also used to prevent impairments and secondary health conditions.

Priority assistive products are those products that are highly needed, an absolute necessity to maintain or improve an individual's functioning and which need to be available at a price the community/state can afford.

Who needs AP?

The people who most need assistive technology include:

- older people,
- people with disability,
- people with non-communicable diseases.
- people with mental health conditions including dementia and autism
- people with gradual functional decline

Assistive are essential tools to

- compensate for an impairment / a loss of intrinsic capacity
- reduce the consequences of gradual functional decline
- help minimize the need for caregivers
- prevent primary and secondary health conditions
- lower health and welfare costs

Assistive products are often the first step towards:

- getting out of bed and out of one's house
- accessing education, work and employment
- escaping from poverty and hunger
- greater mobility, freedom and independence
- inclusion and participation, and
- leading a dignified life

2. 4-P approach to address assistive technology

In order to effectively to deliver the AP, the APL should be linked to the policy, improving the availability and access to the products, with adequate personnel to cater to the need, and channelizing the provision at all levels.

2.1. Policy:

The country-specific APL is strongly linked to the policy of the Government to fulfill the rights of people with disabilities and others who need AP. Assistive technology is part of the health technology, and is linked to rehabilitation interventions that essentially requires the need for trained health personnel in prescribing and monitoring the AP. This necessitates the need for leadership in AT within the MoH with strong links to education, labor and social welfare ministries at all levels. Specific roles and responsibilities will include regulation of service providers through registration and standardization of procedures, ensuring basic standards for AP, development of guidelines and protocol for service providers that includes data sharing and monitoring. Prosthetics and Orthotics service providers should regulate and registered as health services.

The other policy structures in terms of governance, information, financing, stakeholder coordination, monitoring, international coordination and cooperation are beyond the scope of the document.

2.2. Products:

Assistive products are not only related to mobility, but it includes a wide range of products to improve functioning in impairments due to vision, speech and hearing, cognition and it also addresses environmental barriers. A range of components, raw materials, and consumables are required to make AP, especially in prosthetics and orthotics. Some can be purchased locally and some will have to be imported. The document acknowledges the need for policy and guidelines that facilitates the import of AP that which are not available in the country including specific components, raw materials and consumables that meets the essential standards. Essential clearance from customs, and necessary exemptions should also be considered for service providers. Research and development in AP can be one of the priority areas of Nepal Health Research Council (NHRC).

2.3. Personnel:

The prioritized assistive products should be prescribed by qualified and certified personnel. A multi-disciplinary team (with professionals academically qualified to relevant AP) to train users in effective, safe use and maintenance of the products over time is necessary. The referral links should strongly include CBR workers and the NGOs for effective forward and backward referrals. They are crucial in awareness raising and

service delivery at the community level, the use of local resources, collaboration and coordination, and the consideration of cultural factors.

Workforce planning at different service delivery levels, professional regulation and recognition should also be planned. This includes mandatory registration of professionals in Nepal Health Professional Council or their related council, and job is assigned as per qualifications.

2.4. Provision:

Provision of assistive products should embody the principles of people-centered services – "an approach to care that consciously adopts the perspectives of individuals, families and communities, and sees them as participants as well as beneficiaries of trusted health systems" (WHO, 2017).

The service delivery for AP will build on the existing public-private-partnership (PPP) at different levels and move on to an inclusive service delivery options within the 3-tier health care delivery systems. The latter will widen the reach to all people in need, best planned and delivered through a system tailored to the needs, expectations and distribution of the population, with careful consideration of the resources available. Such mainstreaming will contribute to attaining the goal of universal health coverage. The document also calls for special considerations that are required when delivering services in disaster context.

3. Development of Assistive Products List of Nepal

3.1. Estimating the need

Accurate data on the needs and unmet needs for AP is a major requisite for planning and developing services. This includes information on the workforce, service units available (and to be established) at the central, provincial and local levels. The need for services can be assessed by using the general WHO estimate, from data on the prevalence of disability, by using data from national censuses, by analyzing service utilization or by conducting a dedicated survey. Some of these methods also indicate the level of unmet need. To complement to these approaches, the demand for services (the number of people actively requesting assistance) should be considered; however, it is important not to equate demand with need, as many people who could benefit from these services are unaware of them.

In Nepal, the need for assistive products and technology is not fully known like in other low-income countries. WHO estimates 0.5% of a population need prosthetic or orthotic devices, about 1% need a wheelchair, and 3% would benefit from using a hearing aid.

This is an approximate figure that does not take into account regional differences or factors that result in higher rates in certain populations, such as war, disabling diseases and road traffic injuries, and it lacks the distribution by gender and age. Moreover, the estimate does not include other sensory and cognitive impairments for which assistive products and technologies that can improve their functioning are available. However, it does provide a basis for a first calculation of need, and a starting point for general planning to be complemented with more exact assessments later.

3.2. Process

A technical working group / TWG on assistive technology were formed by the leprosy control division to prepare the priority assistive products list for Nepal. The Technical working group again formed sub group members including WHO consultant. The group discussed the objectives, methodology for data collection, and the time frame. Since the initial data was primarily on mobility, the methodology was revised to collect information on AP for other impairments. With technical assistance from WHO Nepal, 3 templates for data collection were developed -1) from users and the disabled people organizations (DPO), 2) from service providers and suppliers, 3) from specialists – ENT, Orthopaedic surgeons, Psychiatrists, Psychologists, Speech & Language Therapists etc.

For the users and Disability People Organizations (DPOs), a meeting was convened to interact, discuss, and prioritize APL. A template survey was carried out to collect data

from other two stakeholder groups. TWG was advised by the LCD to develop a guiding document with specific standards and pricing that will enable the MoH in budgeting and to decentralize AP services to the provincial and local levels

A consultative workshop was held on May 11, 2018 inviting 63 DPOs, Service providers, Professional Organizations, Hospitals, INGOs and NGOs. During this workshop, the first draft of this document was shared. Four thematic groups were formed according to the types/ areas that require AP and were invited to provide feedback and other inputs to make this document more inclusive.

4. Priority Assistive Products List of Nepal

Area/Type	Name of Product			Explanation
1. Mobility				
Crutches	1.	Axillary crutches ISO Code: 12.03.12 [includes,_height adjustable]	AH.	Devices providing support when walking that have a horizontal padded support that is placed against the upper body next to the armpit
Crutches	2.	Elbow crutches ISO Code: 12.03.06 (includes,_height adjustable)		Devices, adjustable in height, providing support when walking that have a semi-circular support for the elbow, a horizontal hand grip, a single shaft, and one tip
Walking sticks and canes	3.	Walking sticks/canes ISO Code: 12.03.03		Adjustable/non-adjustable mobility device with a handgrip
Walkers	4.	Walking frames ISO Code: 12.06.03 (includes, Walker - height adjustable, folding)	用	Frame that helps a person to maintain stability and balance while walking or standing, with either four tips (ferrules) or two tips and two castors
Wheelchairs	5.	Manual wheelchairs ISO Code: 12.22.03 (includes, different types of Wheel chairs)		Intended to be self-propelled by the users by pushing rims or wheels. Can be used indoor/outdoor and on various types of terrain.
	6.	Tricycles (three-wheeled cycles) ISO Code: 12.18.09		Trikes or three-wheeled cycles for greater mobility and mostly for outdoor use

Area/Type		Name of Product		Explanation
	7.	Footwear for diabetes/neuropathic foot, Orthopedic shoes ISO Code: 06.33.30 (includes, special types of shoes		Footwear intended to treat or compensate for the impaired body functions or body structures of a person's leg, ankle and foot Orthopedic shoes to reduce or distribute load on tissue to prevent injuries in the development of a diabetic/neuropathic foot
Lower limb orthoses	8.	Foot abduction braces/ Club foot Shoes and braces/splints	d_k	Device used in the treatment of club foot
	9. Ankle Foot Orthoses (caliper/brace) (AFO) ISO Code: 06.12.06		Orthosis that encompasses the ankle joint and the whole or part of the foot	
	10	Knee ankle foot orthoses (caliper/brace) (KAFO) ISO Code: 06.12.12		Orthosis that encompasses the knee and ankle joints and the foot
Spinal orthoses	11	Thoraco-lumbo-sacral orthoses/brace ISO Code: 06.03.09 (includes, Spinal braces)		Orthosis that encompasses the whole or part of the thoracic, lumbar and sacro-iliac regions of the trunk

Area/Type		Name of Product		Explanation
Lower limb	12	Below knee lower limb prosthesis (artificial leg) ISO Code: 06.24.09 (includes, Foot prosthesis)	1	Device that replaces part of the lower limb between the knee joint and the ankle joint after amputation or in cases of limb deficiency (includes trans-tibial, foot prosthesis and partial foot prosthesis)
prostheses	13	Above knee lower limb prosthesis (artificial leg) ISO Code: 06.24.15		Device that replaces part of the lower limb between the hip joint and the knee joint after amputation or in cases of limb deficiency (includes trans-femoral, knee disarticulation and hip disarticulation prosthesis)
Upper limb	14	Trans-humeral (above elbow) upper limb prosthesis (artificial hand) ISO Code: 06.18.15	L	Device that replaces part of the upper limb between the shoulder and elbow joints after amputation or in cases of limb deficiency
prostheses	15	Trans-radial (below elbow) upper limb prosthesis (artificial hand) ISO Code: 06.18.09 (includes, Hand prosthesis)		Device that replaces part of the upper limb between the wrist and elbow joints after amputation or in cases of limb deficiency
Upper Limb	16	Wrist hand finger Orthosis ISO Code:06.06.13	Time (A) VE	Orthoses that encompass the wrist joint, hand and one or more fingers
Orthoses	17	Elbow Wrist hand Orthosis ISO Code: 06.06.19		Orthoses that encompass elbow and the wrist joint, and whole or Part of the hand
Upper Limb Orthoses	18	Shoulder Elbow Orthosis ISO Code:06.06.24		Orthoses that encompass the shoulder and elbow joints.

Area/Type		Name of Product	Explanation
	19	Modular seating systems ISO Code18.09.39 (includes, Special Chairs for PWD, Table/seating frames, developmental aids - sitting chair, corner chair, prone board)	Specially designed seat and desk for children with any kind of developmental delay for seating and standing
Special devices for children with development al delays	20	Assistive products for cognitive therapy ISO Code 04.26 Toys ISO Code 30.03.03 Games ISO Code 30.03.09 Assistive products for training in communication with pictures and drawings ISO Code 05.06.27 (Includes, Sensory toys, equipment & materials, Light Related toys, Air defenders, Eye masks, Fine motor skill, Tactile devices, Sensory assessment toys)	
Other products	21	Catheter and Diaper (for Spinal cord injuries) & Hip & elbow support, soft	

Area/Type		Name of Product		Explanation
		cotton elastic bandages, soft ice pack/bandage, light weight tourniquets (for Hemophilia)		
2. Vision				
Spectacles	22	Spectacles for low vision, long distance, Short Distance ISO Code: 22.03.06 (includes, High power spectacles, Distance glass)	S	Distance glasses focus on things that are further away in positive selected power grades
Magnifying devices	23	Magnifying glasses ISO Code: 22.03.09 (includes, Hand held magnifying glass, Stand magnifying,)	8	convex lens that is used to produce a magnified image of an object
Tactile sticks	24	White canes (folding or non- folding) ISO Code: 12.39.03		Devices for navigation or identification of the surroundings used by a person with a visual impairment
	25	Refreshable braille displays ISO Code: 22.39.05 (includes, Braille Displayer)		Electro-mechanical device for displaying braille characters, usually by means of round-tipped pins raised through holes in a flat surface
Interactive products	26	Screen readers ISO Code: 22.39.12 (includes, DAISY player, Software, Screen reading software)		Software that interprets what is being displayed on the screen and presents it to the user with text-to-speech, sound icons, or a Braille output

Area/Type		Name of Product		Explanation
Multing	27	Portable braille note takers ISO Code: 22.12.21 (includes, Braille Memo)		Portable devices that use either a Braille or keyboard for input and voice and/or refreshable Braille for output
Writing Devices	28	Braille writing equipment ISO Code: 22.12.12 (includes, Stylus, slate, braille paper)		Devices for manual Braille input entry for producing Braille onto paper
Other products	29	Liquid level indicator ISO Code: 15.03.03 (includes, Water indicator , Object indicator)		Assistive products for weighing and measuring to prepare food and drink
3. Hearing				
Hearing aids	30	Behind the ear hearing aids ISO Code: 22.06.15 (includes, Audio induction loop system & Frequency modulation system)	3	Devices worn behind the ear to amplify sound.
Communicati	31	Video recording and playing devices ISO Code: 22.18.06 (includes, Video communication devices)		Device that allows for interaction achieved by means of a video link
on products	32	Devices and software for real-time text communication ISO Code: 22.24.09		Wired/wireless (often battery operated) real time text- to-text communication among 2 - 4 people

Area/Type		Name of Product		Explanation
		(includes, Text to Text Communication Device, Communication access real time translation)		
Signaling products	33	Fire and smoke alarm signalers ISO Code: 22.27.09 (includes, Light indicator, signalers with vibration)	and the state of t	Flashing strobe light and/or a vibrating pad that can be placed under the pillow which activate when the smoke alarm sounds
Other products	34	Decoders for videotext and text television ISO 22.18.21 (Includes, Automatic speech recognition (ASR) in captioning systems, Communication access real time translation)		Auditory information picked-up by an ASR is translated into text and displayed for the deaf user
	35	Infrared system, Voice/speech machine/instrument		
4. Communicat	ion			
Non- electronic AAC	36	Communication boards/books ISO Code: 22.21.03 (includes, picture exchange and communication system)		Communication displays consisting of photographs, symbols, words/letters or a combination of all three

Area/Type		Name of Product		Explanation
	37	Face-to-face communication software ISO Code: 22.21.12		Software for direct communication - based on symbols or text - which supplements or replaces speech or verbal communication
Electronic AAC	38	Dialogue units ISO Code: 22.21.09 (includes, Augmentative and alternative communication system)	41 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Augmentative and Alternative Communication (AAC) application for SMART phones to facilitate communication
5. Cognition				
Multiple uses	39	Personal Digital Assistants (PDA) ISO Code: 22.33.06		Computers that can be powered with batteries and thus can be used anywhere - includes mobile phones such as smartphones and tablets
Memory Aids	40	Pill organizers ISO Code: 04.19.04		Special container for storing scheduled doses of one's medications to keep track of whether or not the user has taken the medication
Time devices	41	Time management products ISO Code: 22.27.15	or 15 May Meet Janny In a California In a California	Products that support ordering events in chronological sequence and allocating amounts of time to events and activities.
Alarms	42	Personal emergency alarm systems ISO Code 22.27.18 (Includes, Fall detectors)	•	Fall detectors are worn by the person and will trigger an alert to a carer if an impact is detected and/or the person remains in a lying position. The device then sends an alarm signal to a carer or monitoring centre

Area/Type		Name of Product	Explanation
6. Environment			
	43	Commode chairs ISO Code: 09.12.03 (includes, Special types of commode)	Chairs, with or without castors, with a built-in collection receptacle used for toileting away from the bathroom
Bed Mattress	44	Pressure relief mattress ISO Code: 04 33 06 (includes, Air mattress for patients with spinal cord Injury, stroke,)	prevent pressure injuries by dispersing pressure away from bone protrusions
Wheelchair accessories	45	Pressure relief cushions ISO Code: 04.33.03 (includes, Air cushion & gel cushion for patients with spinal cord injury, Wheelchair cushion)	Device for tissue integrity through redistribution of the load on the buttocks

5. Assistive Products for Emergencies

Recommended rehabilitation equipment & consumables*

		Quantity	Quantity
S. no.	Name of Product	Type 2 (per 20 beds plus outpatients)	Type 3 (per 40 beds plus outpatients)
1.	Stump boards	3	6
2.	Patient transfer boards for chair to bed and bed/trolley to bed	1	2
3.	Leg raisers for wheelchairs	1	2
4.	Portable commodes (chairs for shower/toilet)	1	2
5.	Discharge wheelchairs	4	8
6.	Pressure-relieving cushions for wheelchairs	Align quantity with number of wheelchairs	Align quantity with number of wheelchairs
7.	Slide sheets (To remain in the hospital)	10	20
8.	Inpatient wheelchairs	2	4
9.	Pairs of crutches	20 adult 10 pediatric	60 adult 30 pediatric
10.	Walking frames	4	8
11.	Pressure relieving mattresses (To remain in the hospital)	4	8
12.	Pre-frabricated Ankle and Foot Orthoses	5 right and 5 left for shoe sizes 38-45 5 right and 5 left for shoe sizes 35-40	10 right and 10 left for shoe sizes 38-45 10 right and 10 left for shoe sizes 35-40
13.	Rigid adjustable cervical collars	5	10

^{*} Minimum Technical Standards and Recommendations for Rehabilitation, WHO (2016)

6. Assessment, Prescription and Providing Clinical Services in Assistive Products:

- 1. No client with disability should be discriminated on the basis of age, ethnicity, socioeconomic status, medical conditions etc. for assessment and provision of AP.
- 2. Prescription should not be altered by any person / organization responsible for ordering (for example, administration)
- 3. Assessment, Prescription of Prosthesis and Orthosis should only be done with involvement of qualified certified Prosthetist and Orthosist (P&O), rehabilitation health professionals, registered in Nepal Health Professional Council or other related councils. Once the prescription has been finalized concerned professional should measure and provide services including training of its usage.
- 4. Registered Clinician P&O is responsible to evaluate, assess, prescribe, measurement and casting for assistive products while treating clients related to physical impairments. Associate P&O work as clinician in supervision of Clinician P&O. Clinician and Associate P&O who is not trained in spinal or any other specific design of prosthesis and orthosis should not involve in assess, prescribe, measurement and casting of spinal braces. Similarly, special orthopedic shoes for physical impairment should be measured and designed by certified clinician P&O or Pedorthist and then only fabricated by trained orthopedic shoe maker under his/her supervision.
- 5. The service delivery unit should be registered with government and at least one registered Level A Clinician P&O (at least Bachelor in P&O) should be available to checkout and deliver the prosthetic and orthotic devices.
- 6. Registered rehabilitation specialist, including Physiotherapist, Occupational Therapist (OT) and clinician P&O, should assess and treat clients related to physical impairment who need Mobility Assistive Products.
- 7. Registered rehabilitation specialist, including Physiotherapist, OT, clinician P&O, should assess and treat clients related to physical impairment who need Environment AP.
- 8. Registered rehabilitation specialist and mental health specialists should assess and treat clients who need Cognitive AP.
- 9. Ears, Nose and Throat (ENT) specialists and/or speech therapists should evaluate, assess, diagnose and treat patients with feeding and/or swallowing problems.
- 10. ENT specialists and/or audiologists, audiometricians and other related registered professionals should prescribe, fit and issue assistive devices for hearing impairments.
- 11. Opthalmologists, optometrists and related registered professional should prescribe and issue assistive devices for vision impairments.
- 12. Registered Speech and Language Therapist should involve in a team to provide service of assistive product related to speech and hearing.

- 13. Deployment of human resources without council registration and qualification will be considered as malpractice, should be discouraged for standard services.
- 14. Registered rehabilitation specialist, including physiotherapist, occupational therapist clinician P&O, should assess and treat clients related to physical impairment who need Environment Assistive Products.
- 15. Registered rehabilitation specialist and mental health specialists should assess and treat clients who need Cognitive Assistive Products.
- 16. Clinical provision of Assistive Products should follow 8 clinical steps:
 - I. Referral of the patient by health workers to concerned registered rehabilitation specialists allowed to prescribe and provide assistive technology;
 - II. Assessment of the health condition and impairment of the patient by concerned registered rehabilitation specialists;
 - III. Prescription of the appropriate AP by the concerned registered rehabilitation specialists, based on the assessment of health condition;
 - IV. Procurement of the AP, prescribed by concerned registered rehabilitation specialists, is done by local manufacturer or by international manufacturer if not available in Nepal;
 - V. Fitting, by concerned registered rehabilitation specialists, of the AP produced in Nepal or imported, based on the patient conditions;
 - VI. Training of the patients, by concerned registered rehabilitation specialists, to use correctly the AP provided and counselling on maintenance of AP to the patients/caregivers;
 - VII. Cross referral from concerned registered rehabilitation specialists to health workers:
 - VIII. Long term follow up of the patient by the concerned registered health and/or rehabilitation specialist;
- 17. Specialists should be consulted in the repair/replacement of assistive device.

7. Key points for budgeting and supply of AP

- 1. The budget allocation should be realistic and proportional to the local needs. Decentralized planning and budgeting to be encouraged over time. Procurement committee should include at least one related AP professional.
- 2. Indirect costs of providing AP to the clients which includes, transportation, stay, and personnel costs should be considered.
- 3. The need for assistive products should be calculated as per the functioning status of the population which can be obtained through surveys. Disability data from National Census 2011 and the data from the suppliers can be a starting point for planning and provision.
- 4. Data on AP supplied, replaced and repaired should be available with the local government to facilitate planning and provision. Encoding devices and linking supply to identity card of the clients may also be considered.
- 5. Quality assurance should be ensured by the procurement committee with at least one professional related to Assistive Product. Compliance to ISO standards should be progressively attained.
- 6. Service providers should comply with guarantee/warranty and should provide service/repair by qualified professional / trained technicians.
- 7. The AP should be replaced after a reassessment of the client and the AP by registered professionals related to the assistive device.
- 8. Training on AP to the users (including sensitization of local bodies) should be given by related, registered professionals.

9. Priority Product List with Price

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
1. Mobility						
	1.	Axillary crutches ISO Code: 12.03.12 (includes, height adjustable)	H	Devices providing support when walking that have a horizontal padded support that is placed against the upper body next to the armpit		1900
Crutches	2.	Elbow crutches ISO Code: 12.03.06 (includes, height adjustable)		Devices, adjustable in height, providing support when walking that have a semi-circular support for the elbow, a horizontal hand grip, a single shaft, and one tip		1900
Walking sticks and canes	3.	Walking sticks/canes ISO Code: 12.03.03		Adjustable/non-adjustable mobility device with a handgrip		900
Walkers	4.	Walking frames ISO Code: 12.06.03 (includes, Walker - height adjustable, folding)	M	Frame that helps a person to maintain stability and balance while walking or standing, with either four tips (ferrules) or two tips and two castors		2500
Wheel chairs	5.	Manual wheelchairs ISO Code: 12.22.03 (includes, different types of Wheel chairs)		Intended to be self-propelled by the users by pushing rims or wheels. Can be used indoor/outdoor and on various types of terrain.		40000

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
	6.	Tricycles (three- wheeled cycles) ISO Code: 12.18.09		Trikes or three-wheeled cycles for greater mobility and mostly for outdoor use		30000
	7.	Footwear for diabetes/neuropathi c foot, Orthopedic shoes ISO Code: 06.33.30	3 :2	Footwear intended to treat or compensate for the impaired body functions or body structures of a person's leg, ankle and foot	7a. Foot Orthosis	2600
Lower limb orthoses		(includes, special types of shoes	16	Orthopedic shoes to reduce or distribute load on tissue to prevent injuries in the development of a diabetic/neuropathic foot	7b. Orthopedic shoes – Customized molded shoes	2500
	8.	Foot abduction braces/ Club foot Shoes and braces/splints		Device used in the treatment of club foot	8a. CTEV Shoes 8b. Foot Abduction braces/ Dennis brown Splint	2000
	9.	Ankle Foot Orthoses (calliper/brace) (AFO) ISO Code: 06.12.06		Orthosis that encompasses the ankle joint and the whole or part of the foot	9a. AFO Adult 9b. AFO Child	5000 2700
	10.	Knee ankle foot orthosis	See .	Orthosis that encompasses the knee	10a. Hip Knee ankle foot orthosis, caliper	20000
		(calliper/brace) (KAFO) ISO Code: 06.12.12		and ankle joints and the foot	10b. Knee ankle foot orthosis, caliper	18000

Area/Type		Name of Produc	ct	Explanation	Sub-products	Price
Spinal orthoses	11.	Thoraco-lumbo- sacral orthoses/brace ISO Code: 06.03.09 (includes, Spinal braces)		Orthosis that encompasses the whole or part of the thoracic, lumbar and sacro-iliac regions of the trunk	11a. Taylor / Knight taylor brace for SCI 11b. TLSO body jacket for muscular dystrophy, SCI, and others	3500 20000
12 Lower limb	12.	Below knee lower limb prosthesis (artificial leg) ISO Code: 06.24.09 (includes, Foot prosthesis)	1	Device that replaces part of the lower limb between the knee joint and the ankle joint after amputation or in cases of limb deficiency (includes trans-tibial, foot prosthesis and partial foot prosthesis)	12a. Partial Foot Prosthesis 12b. Transtibial Prosthesis 12c. Syme's Prosthes	9000 45000 18000
prostheses	13.	Above knee lower limb prosthesis (artificial leg) ISO Code: 06.24.15	1	Device that replaces part of the lower limb between the hip joint and the knee joint after amputation or in cases of limb deficiency (includes transfemoral, knee disarticulation and hip disarticulation prosthesis)	13a. Transfemoral Prosthesis 13b. Knee Disarticulation Prosthesis	120000 160000
Upper limb prostheses	14.	Trans-humeral (above elbow) upper limb prosthesis (artificial hand) ISO Code: 06.18.15		Device that replaces part of the upper limb between the shoulder and elbow joints after amputation or in cases of limb deficiency	14a. Transhumeral Prosthesis /Elbow Disarticulation Prosthesis 14b. Shoulder disarticulation Prosthesis	190000

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
	15.	Trans-radial (below elbow) upper limb prosthesis (artificial hand) ISO Code: 06.18.09 (includes, Hand prosthesis)		Device that replaces part of the upper limb between the wrist and elbow joints after amputation or in cases of limb deficiency	15a. Transradial Prosthesis 15b. Wrist disarticulation Prosthesis 15c. Partial Hand Prosthesis	45000 45000 15000
	16	Wrist hand finger Orthosis ISO Code:06.06.13	mak	Orthoses that encompass the wrist joint, hand and one or more fingers		1700
Upper Limb Orthoses	17	Elbow Wrist hand Orthosis ISO Code: 06.06.19	1	Orthoses that encompass elbow and the wrist joint, and whole or Part of the hand		3800
	18	Shoulder Elbow Orthosis ISO Code:06.06.24		Orthoses that encompass the shoulder and elbow joints.		4400
Special devices for children with developmen tal delays	19.	Modular seating systems ISO Code18.09.39 (includes, Special Chairs for PWD, Table/seating frames, developmental aids sitting chair, corner chair, prone board, standing frames)		Specially designed seat and desk for children with any kind of developmental delay for seating and standing		12000

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
	20.	Assistive products				1000
		for cognitive therapy				
		ISO Code 04.26				
		Toys				
		ISO Code 30.03.03				
		Games				
		ISO Code 30.03.09				
		Assistive products				
		for training in				
		communication with				
		pictures and				
		drawings				
		ISO Code 05.06.27				
	21.	Catheter and Diaper				1000
		(for Spinal cord				
		injuries and cerebral				
		palsy) &				
		Hip & elbow				
Other		support, soft cotton				
products		elastic bandages,				
		soft ice				
		pack/bandage, light				
		weight tourniquet				
		(for Hemophilia)				

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
2. Vision						
Spectacles	22.	Spectacles for low vision, long distance, Short Distance ISO Code: 22.03.06 (includes, High power spectacles, Distance glass)	R	Distance glasses focus on things that are further away in positive selected power grades		1000
Magnifying devices	23.	Magnifying glasses ISO Code: 22.03.09 (includes, Hand held magnifying glass, Stand magnifying,)	P	convex lens that is used to produce a magnified image of an object		800
Tactile sticks	24.	White canes (folding or non-folding) ISO Code: 12.39.03		Devices for navigation or identification of the surroundings used by a person with a visual impairment		1000
Interactive products	25.	Refreshable braille displays ISO Code: 22.39.05 (includes, Braille Displayer)		Electro-mechanical device for displaying braille characters, usually by means of round-tipped pins raised through holes in a flat surface		350000
	26.	Screen readers ISO Code: 22.39.12 (includes, DAISY player, Software, Screen reading software)		Software that interprets what is being displayed on the screen and presents it to the user with text-to-speech, sound icons, or a Braille output		150000

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
Products for writing	27.	Portable braille note takers ISO Code: 22.12.21 (includes, Braille Memo)		Portable devices that use either a Braille or keyboard for input and voice and/or refreshable Braille for output		200000
	28.	Braille writing equipment ISO Code: 22.12.12 (includes, Stylus, slate, braille paper)		Devices for manual Braille input entry for producing Braille onto paper		1000
Other products	29.	Liquid level indicator ISO Code: 15.03.03 (includes, Water indicator, Object indicator)		Assistive products for weighing and measuring to prepare food and drink		5500
3. Hearing	•					•
Hearing aids	30.	Behind the ear hearing aids ISO Code: 22.06.15 (includes, Audio induction loop system & Frequency modulation system)	3	Devices worn behind the ear to amplify sound.		12000
Communicat ion products	31.	Video recording and playing devices ISO Code: 22.18.06 (includes, Video communication devices)		Device that allows for interaction achieved by means of a video link		N/A

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
	32.	Devices and software for real-time text communication ISO Code: 22.24.09 (includes, Text to Text Communication Device, Communication access real time translation)		Wired/wireless (often battery operated) real time text-to-text communication among 2 - 4 people		25000
Signaling products	33.	Fire and smoke alarm signalers ISO Code: 22.27.09 (includes, Light indicator, signalers with vibration)	Marie menn	Flashing strobe light and/or a vibrating pad that can be placed under the pillow which activate when the smoke alarm sounds		8000
Other products	34.	Decoders for videotext and text television ISO 22.18.21 (Includes, ASR in captioning systems, Communication access real time		Auditory information picked-up by an ASR is translated into text and displayed for the deaf user		N/ A

Area/Type		Name of Produc	ct	Explanation	Sub-products	Price
		translation)				
	35.	Infrared system, Voice/speech				25,000
		machine/instrument				
Non-	36.	Communication boards/books ISO Code: 22.21.03	feel	Communication displays consisting of		25,000
electronic AAC		(includes, picture exchange and communication system)		Communication displays consisting of photographs, symbols, words/letters or a combination of all three		
	37.	Face-to-face communication software ISO Code: 22.21.12	4 F 4 X 9 V = A 1 7 0 8 10 10 5	Software for direct communication - based on symbols or text - which supplements or replaces speech or verbal communication		2000
Electronic AAC	38.	Dialogue units ISO Code: 22.21.09 (includes, Augmentative and alternative communication system	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Augmentative and Alternative Communication (AAC) application for SMART phones to facilitate communication		4000
5. Cognition						
Multiple uses	39.	Personal Digital Assistants (PDA) ISO Code: 22.33.06		Computers that can be powered with batteries and thus can be used anywhere - includes mobile phones such as smartphones and tablets		15000

Area/Type		Name of Produ	ct	Explanation	Sub-products	Price
Memory Aids	40.	Pill organizers ISO Code: 04.19.04		Special container for storing scheduled doses of one's medications to keep track of whether or not the user has taken the medication		200
Time devices	41.	Time management products ISO Code: 22.27.15	ay 15 May Charles Sening Charles of Charles Charles and	Products that support ordering events in chronological sequence and allocating amounts of time to events and activities.		2500
Alarms	42.	Personal emergency alarm systems ISO Code 22.27.18 (Includes, Fall detectors)	6	Fall detectors are worn by the person and will trigger an alert to a carer if an impact is detected and/or the person remains in a lying position. The device then sends an alarm signal to a carer or monitoring centre		45000
6. Environme	nt					
Chairs	43.	Commode chairs* ISO Code: 09.12.03 (includes, Special types of commode*)		Chairs, with or without castors, with a built-in collection receptacle used for toileting away from the bathroom		1900
Beds	44.	Pressure relief mattress ISO Code: 04 33 06 (includes, Air mattress for patients with spinal cord injury*)		prevent pressure injuries by dispersing pressure away from bone protrusions		7500

Area/Type	Name of Product		ıct	Explanation	Sub-products	Price
Wheelchair accessories	45.	Pressure relief cushions ISO Code: 04.33.03 (includes, Air cushion & gel cushion for patients with SCI stroke, Wheelchair cushion)		Device for tissue integrity through redistribution of the load on the buttocks		20000

10. Next Steps

The definition of the Priority Assistive Product List is the first step for reaching the objective of good quality AP provision for all the population in Nepal including the most vulnerable. To reach this objective, futures activities are needed:

- 1. Government/Ministry of Health and Population (G/MoHP) of Nepal should include AT in the next National Health Sector Strategy and define the standard operational procedure (SOP) to provide AP at the different level of the Health System;
- 2. G/MoHP would develop and endorse the "Nepal Standards for Priority Assistive Product Guideline", to define the minimal quality standard required for all the selected AP:
- 3. G/MoHP of Nepal would define precisely the maximal price for the Priority AP, based on the "Nepal Standards for Priority Assistive Product Guideline". This price should include the AP production/importation costs and the indirect costs of providing AP to the clients which includes, transportation, stay, and others personnel costs. A mechanism to revise the prices annually should be defined
- 4. G/MoHP of Nepal should made the mapping of all the AT services providers in Nepal and evaluate if the mapped AT services providers are achieving the minimal quality standards required in the "Nepal Standards for Priority Assistive Product Guideline". After this first step, G/MoHP of Nepal should develop a Public Private Partnership guideline including official registration mechanisms, a monitoring system to evaluate the registered AT service providers and procurement mechanisms.
- 5. The needs of AP among the population of Nepal should be estimated to plan the provisions of quality and affordable AP for all.
- 6. For a long vision strategy, G/MoHP should start partnership with research, technical and medical institutions from public and private sectors to develop advanced AT by using local resources.

References:

- *i)* Priority Assistive Product List, World Health Organization 2016
- ii) World Report on Disability, World Health Organization 2011
- iii) Report on First National Review and Planning Workshop on Disability 2017, Government of Nepal, MOH, DoHS, Leprosy Control Division
- iv) WHO Standards for Prosthetics and Orthotics, Geneva: World Health Organization;2017

Annex I

Participant list of Consultative Workshop on Priority Assistive <u>Product of Nepal</u> **Date:** Baisakh 28, 2075 (11th May 2018)

S. N	PARTICIPANTS NAME	ORGANIZATION
1.	Mohammad Daud	Leprosy Control Division /DoHS
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4.	Dr. Reuben Samuel	WHO
5.	Randhir Kumar Yadav	Leprosy Control Division
6.	Himalaya Sigdel	Netherland Leprosy Relief
7.	Bipin Thapa	FAIRMED
8.	Shashi Lal Karn	Fairmed
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20.	Gaetan Mareschal	Humanity and Inclusion
21.	Manoj Kumar Sah	Self Help Group for Cerebral Palsy
22.	Yasoda Shah	LPAN

23.	Ramkesari Bade	Down Syndrome Association of Nepal
24.	Samriddhi Rana	Karuna Foundation
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30.	Sita Dhamala	Association for Welfare of Blind
31.	Nirmala Makranti	LPAN
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33.	Suresh Neupane	National Association of Blind
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35.	Kundan Kafle	Koshish
36.	Jay Buddhathoki	International Nepal Fellowship
37.	Meena Paudel	Nepal Disabled Women Association
38.	Yam Nath Mainali	Nepal Disabled Fund
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40.	Tek Bahadur Gurung	Centre for Independent Living Nepal
41.	Rita Gautam	CBM
42.	Saraj Neupane	NHTC
43.	Ngawang Dolma Tamang	LCD/HI
44.	Mitha Ram Thapa	LCD
45.	Prakash Malla	LCD
46.	Esha Thapa Dhungana	Spinal Injury Sangh Nepal
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Annex II

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