

Republic of Belarus

Project Document

Министерство экономики Республики Беларусь ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕЖДУНАРОДНЫМИ United Nations Development Programma и координации технической помощи ЗАРЕГИСТРИРОВАНО

в базе данных программ и проектов международной технической помощи 200<u>9</u>г. *9 100*0 "23" MONS

Регистрационный номер_

CPOL DERLUSAISUES: 23.07.09-22.01.2

Project Title	Establishment of International Scientific and Practical Centre of Thyroid Disease
Expected Country Programme Outcome:	Create favourable conditions for socio-economic development of the Chernobyl-affected areas
Expected Outputs:	Fully functioning international scientific and practical Centre of Thyroid Disease aimed at studying spreading and progression of thyroid abnormalities in Belarus and at enhancing provision of practical assistance to patients with thyroid diseases
Executing Entity:	Ministry of Health of the Republic of Belarus
Implementing Agencies:	Ministry of Health of the Republic of Belarus UNDP Office in the Republic of Belarus Local Foundation "Help for Patients With Radiation Induced Thyroid Cancer "Arnica"

Brief Description

The international scientific and practical Centre of Thyroid Disease addresses the needs of population suffering from thyroid diseases and associated endocrinological illnesses as result of the Chernobyl disaster. The main aim of the project is to provide the lacking scientific background, the lacking infrastructure, and the lacking expertise for further advancement of thyroid disease diagnostics and treatment, and for sustainable improvements in health of the Chernobyl-affected population. The project includes the scientific and research work for advancement of knowledge about radiation induced thyroid disease; establishment and equipping of an international scientific and practical Centre of Thyroid Disease primarily focused on diagnostics, treatment and dynamic monitoring of patients; and dissemination of relevant knowledge and information to medical professionals and patients.

Programme Period: 2006-2010

Key Result Area: Crisis prevention and recovery (Restoring the foundations for devel-

opment)

Atlas Project ID: 00062456

Start date: 01.12.2008 End Date: 31.05.2011

PAC Meeting Date: 25.09.2008, 18.10.2008

Management Arrangements: NEX Total resources required: EUR 1 136 715

Total allocated resources: EUR 1 136 715

UNDP

EUR 63 000

European Commission EUR 1 073 715

Agreed by Name Title Signature Date

Executing Minister of Health of the

Agency Mr. Vasily Zharko Republic of Belarus

UNDP: Mr. Antonius Broek UNDP Resident Representative

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ABBREVIATIONS

UNDP

United Nations Development Programme

«Arnica»

Local Foundation "Help for Patients with Radio-induced Thyroid Cancer "Arnica"

Foundation

RCMRB

Republican Center for Medical Rehabilitation and Balneotherapy

UIPI

State Scientific Institution "United Institute for the Problems of Informatics of the Na-

tional Academy of Sciences of Belarus"

BelMAPE

Belarusian Medical Academy of Postgraduate Education

RCRM

State Institution "Republican Scientific and Practical Centre of Radiation Medicine and

Human Ecology"

BRCS

Belarusian Red Cross Society

RCTGT

Republican Centre of Thyroid Gland Tumors

SYMPATHY

Software "Automated System of Monitoring of Patients with Thyroid Disease"

EUR

Euro

PART I. SITUATION ANALYSIS¹

BACKGROUND

Belarus has suffered the most widespread consequences of the Chernobyl catastrophe of 1986 with 23% of its territory with approximately 3,600 settlements affected by radioactive fallout. Over 2 million inhabitants, including about 500,000 children, have suffered from the Chernobyl disaster. About 1.3 million people, including over 200,000 children are estimated to still live today in the contaminated areas.

The most significant medical consequence of the Chernobyl accident acknowledged to date is the growth of radio-induced thyroid diseases and pathologies in children and adolescents.

Enlargement of thyroid gland to a borderline state is observed in 20%-30% of the population of Belarus, i.e. in approximately 2-3 million people (nodular goiter is observed in 20% of population; thyroid cancer - in 13000 patients; thyrotoxicosis - in 15000 patients). Analysis of the official Belarusian statistics for 1992-2004 reveals the growth of morbidity with acquired hypothyroidism in children's and adolescent's age especially in Gomel, Mogilev and Brest regions, and shift of thyroid cancer morbidity since 1999 from the children's age groups to adolescent's age groups, and since 2001 – from adolescent's age to morbidity of young adults groups.

The reasons for growth and mechanisms of development of thyroid diseases in Belarus still require research since development of many thyroid diseases is known to have a longer latent period after radiation exposure, up to 20-30 years.

Taking the above into account, it is essential to undertake further research and to render comprehensive assistance to patients with thyroid diseases using the advanced methods of diagnostics, monitoring, treatment, follow-up and rehabilitation in Belarus.

LINKS TO UNDP PRIORITIES

In compliance with the 2002 UN Report on *Human Consequences of the Chernobyl Nuclear Accident – A Strategy for Recovery* recommendations, activity of the UN country group and in particular UNDP has shifted from emergency measures on mitigation of accident consequences towards long-term socio-economic rehabilitation of Chernobyl-affected areas. As noted in the Report, this shift allows for addressing diverse yet interrelated spheres - including public health, the environment, economic development stimulation and radiological protection culture.

The Chernobyl Forum 2003-2005 is an initiative undertaken by eight agencies and organizations of the UN system, including UNDP and the governments of Belarus, the Russian Federation and Ukraine in order to obtain a scientific consensus on the health, environmental, and socio-economic consequences of the accident and to promote improved measures to deal with the impacts of the accident. The Forum recommended, amongst other things, to continue screening for thyroid cancer of those who were children and adolescents and resided in 1986 in the areas with radioactive fallout and to consider for screening subgroups of populations known to be particularly sensitive that are at much higher risk than the general population.

UNDP Country Programme for 2006 - 2010 places the rehabilitation of Chernobyl-affected areas within its five thematic priorities in Belarus.

¹ A more detailed information is provided in Annex 4.

PART II. **STRATEGY**

OBJECTIVES AND PURPOSE

министерство экономики Республики Беларусь ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ

The overall objective of the project is to address the socio-economic difficulties in the Chernobyl-affected areas and support the most support leaves of the socio-economic difficulties in the Chernobylaffected areas and support the most vulnerable layers of the population.

The specific objective of this project is to establish the international scientific and practical Centre of Thyroid Disease aimed at provision of medical care services and monitoring to the most vulnerable categories of Chernobyl-affected population suffering from thyroid pathologies and associated endocrinological diseases through scientific and research work, diagnostics and treatment interventions, as well as training and education of medical professionals and patients.

The project aims to:

- Provide high quality medical services to patients with thyroid diseases and associated endo-1. crinological diseases in a well equipped functional facility using new technologies of diagnostics, treatment and rehabilitation;
- 2. Support organization of scientific and practical activities aimed at improvement of knowledge on mechanisms of development and methods of prevention, diagnostics, treatment and rehabilitation of thyroid diseases based on the modern molecular and genetic studies;
- Improve the knowledge level of medical professionals on application of new equipment and methods, facilitate exchange of experience and knowledge within the country as well as with the leading international thyroid gland research centers, and raise awareness and self-reliance of patients:
- 4. Develop professional specialization in the area of thyroidology, including both general practice endocrinological training and ability to use new diagnostics and treatment technologies; contribute to building capacity of national scientists in accordance with the best world standards;
- Organise and take part in relevant conferences, seminars, workshops and trainings on the 5. actual issues of thyroidology.
- Produce scientific overviews, place articles in international journals and high-impact publications, publish practical guides for medical professionals and easy-to-understand literature for patients.

The project activities will be implemented in collaboration with the wide network of national and international medical professionals, institutional establishments and scientific research organizations.

The project is designed as a set of three sub-components, including:

- the scientific and research work for advancement of knowledge about radiation induced thyroid disease:
- establishment and equipping of an international scientific and practical Centre of Thyroid Diseases (hereinafter referred to as 'the Centre") primarily focused on diagnostics and treatment; and
- dissemination of relevant knowledge and information among medical professionals and pa-

The list and scope of specific activities may and should be adjusted in the course of the project implementation in order to react to the most actual problems of patients, address the most important training needs of medical staff, and minimize the negative effects in case if some of project assumptions are not fulfilled or some risks realize.

PROJECT ACTIVITIES

1. Scientific and research work - advancing the knowledge about the mechanisms of development, ways of prevention, and improvement of management of thyroid diseases and cancer, advancing the skills of early diagnostics of thyroid pathologies and cancer.

- Activity 1.1: Further development of the database of thyroid diseases in Belarus over the past 10 years
- Activity 1.2: Mass screening of patients by mobile screening teams for the sake of early diagnostics of thyroid cancer, autoimmune diseases and thyroid dysfunctions. Performing epidemiological research
- Activity 1.3: Development of a biological materials bank (including cytological material and blood for further molecular and genetic research)
- Activity 1.4: Further development and optimization of software tool "Automated System of Monitoring of Patients with Thyroid Disease"
- Activity 1.5: Studying of the influence of iodine, microelements and vitamins deficit and radioecological status on development of thyroid diseases in a post-Chernobyl period in Belarus (by means of comparative screening of thyroid diseases prevalence in at least two schools and kindergartens of Stolin and Mozyr districts and two in Minsk)
- Activity 1.6: Development of the area-specific programmes for Stolin and Mozyr districts aimed at elimination of iodine deficiency
- Activity 1.7: Coordination and statistical analysis of accumulated data followed up by production of scientific publications
- **2. Diagnostics and Treatment Interventions -** providing high-quality medical services to patients with thyroid and other associated endocrinological diseases in a well-equipped functional facility and using new diagnostic technologies.
 - Activity 2.1: Procurement of equipment. Launching of the well-equipped clinical facility on the basis of the "Arnica" Foundation
 - Activity 2.2: In-house selective screening for thyroid disease and associated endocrinological disorders
 - Activity 2.3: Early diagnostics
 - Activity 2.4: Dynamic monitoring of various groups of patients with thyroid disfunctions
 - Activity 2.5: Development and introduction of sophisticated treatment methods and technologies
 - Activity 2.6: Development of new approaches to follow-up and rehabilitation of patients with thyroid cancer and other thyroid diseases
- 3. Information Activities, Exchange of Experience and Knowledge increasing the level of expertise of medical professionals in application of new equipment/methods and enabling knowledge and experience exchange within the country; exchanging experience with leading international thyroid research centres; increasing awareness and the self-assistance capabilities of patients.
 - Activity 3.1: Development and publishing of the methodological and information materials and brochures for medical professionals and patients
 - Activity 3.2: Training and internship programmes for medical professionals on the basis of the Centre
 - Activity 3.3: Organisation of conferences, seminars and workshops in Minsk and local clinics of the Chernobyl-affected areas
 - Activity 3.4: Connection of local clinics to ADSL-Internet
 - Activity 3.5: Creation of a network of relevant medical professionals and partners
 - Activity 3.6: Pilot and promote the telemedicine consultations and training
 - Activity 3.7: Visit and training schemes in Würzburg, Germany; Endocrinological Scientific Center (Moscow), Medical Radiological Center of the Russian Academy of Medical Sciences, Obninsk), including participation at the international conferences
 - Activity 3.8: Educating patients on various thyroid-related issues and on self-assistance-during screening

 министерство экономики республики Беларусь республики Беларусь отпел по сотрудничеству

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С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ ПОФЕДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ

EXPECTED RESULTS

Establishment of international scientific and practical Centre of Thyroid Disease aimed at studying spreading and progression of thyroid abnormalities in Belarus and at enhancing provision of practical assistance to patients with thyroid diseases through:

- 1. scientific and research work: the databases and biological materials bank have been created; the software tool "Automated System of Monitoring of Patients with Thyroid Disease" has been optimized and expanded; access to modern screening and treatment methods provided to patients from risk groups; programmes aimed at elimination of iodine deficiency have been elaborated; at least 10 publications per year have been made in international journals with high impact factor
- 2. diagnostics and treatment interventions: the medical, telemedicine and office equipment and furniture, medical materials, pharmaceuticals and supplies have been procured; the practical clinical facility of the Center aimed at provision of accessible, highly qualified medical assistance (diagnostics, monitoring, treatment, follow-up and rehabilitation) to patients with thyroid and associated endocrinology diseases from various regions of Belarus has been created and functioning; the Centre is able to provide services to at least 10 thousand visits by thyroid patients per year once the Centre is fully operational
- 3. information activities, exchange of experience and knowledge: the educational, training and information facility of the Center for medical professionals and patients on various thyroid-related issues has been created and functioning; at least 500 medical professionals and teachers, 1000 students and 20 organisations, including educational establishments, have taken part in trainings and internship programmes; at least 1000 participants have taken part in 4-6 conferences, seminars and workshops; educational and training visits to exchange experience have been organised for at least 20 medical professionals; up to 10 thousand individual consultations for thyroid patients conducted per year once the Center becomes fully operational, up to 10 workshops for groups of patients (2-4 workshops per target region) for at least 100 patients have been organized. Methodological and information materials for medical professionals (5 titles) and patients (6 titles) have been developed. A network of interested medical professionals and partners and the system of consultation services has been built up. At least 20 organizations and 100 individuals take part in the network. At least 2 local hospitals are connected to the system of telemedicine consultations. At least 30 consultations per year are rendered to local hospitals. министерство экономики

SUSTAINABILITY

Sustainability of the project will be secured through:

• integrating relevant project results into the state healthcare system and the Centre working as a resource unit capable to assist with building a comprehensive a resource unit capable to assist with building a comprehensive national system of thyroid disease monitoring and prevention on the basis of activities piloted by the project, including through use of modern information, telecommunication and data processing technologies;

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ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ

- incorporating the results of research performed as part of the project into the national and international knowledge, information and data banks and, thus, laying grounds for continuing research work and cooperation with fellow scientists and medical professionals;
- spreading the knowledge on advanced diagnostics and treatment methods among local medical practitioners thus allowing them, on the one hand, to grow professionally as individuals and to apply this new knowledge when dealing with patients and, on the other hand, to push for overall higher standards of medical services provided by their respective institutions;
- continuing taking an active part in various international research and technical assistance projects and thus raising additional donor funding:
- introduction of chargeable services by the Centre to non-vulnerable groups of population without limiting the scale of assistance provided to those most in need, namely patients with thyroid cancer. This will allow covering part of the Centre's running costs without being dependent on donor funding, sponsor assistance or any other kind of subsidies.

STAKEHOLDERS AND BENEFICIARIES

The project's **national executing entity** is the Ministry of Healthcare of the Republic of Belarus. It will ensure coordination of project activities with relevant state programmes and plans in order to avoid duplication of efforts as well as to facilitate constructive interactions between the healthcare institutions and organisations involved in project implementation.

Recipients of the international technical assistance:

The "Arnica" Foundation will lead the project implementation. Its additional functions will include:

- development, verification and selection of techniques and methodological approaches, of protocols for treatment and rehabilitation of patients with thyroid disease,
- participation in examination of patients with the risk of developing thyroid disease and other endocrinological disorders,
- interactions with UNDP on procurement of the necessary equipment, materials and supplies;
- establishment and technical maintenance of the system of telemedicine consultations,
- organisation of training seminars, workshops and conferences,
- development of training and methodological literature and information materials,
- scientific analysis of data and preparation of publications.

Partner organisations involved in project implementation and their functions:

- 1. Republican Center for Medical Rehabilitation and Balneotherapy (RCMRB), Minsk will
 - perform medical examinations and treatment of patients with thyroid and other endocrinological disease;
 - undertake introduction of new treatment methods;
 - take part in organisation of seminars, conferences and training activities.
- 2. State Scientific Institution "United Institute for the Problems of Informatics of the National Academy of Sciences of Belarus" (UIPI), Minsk will
 - take part in development and optimisation of the software and the system of telemedicine consultations and Internet-based services.
- 3. Belarusian Medical Academy of Postgraduate Education (BelMAPE), Minsk will
 - take part in development of protocols for treatment and rehabilitation of patients with thyroid disease;
 - participate in examination of patients with thyroid and other endocrinological disorders;
 - perform consultative examinations of individuals with the risk of developing thyroid/endocrinological disorders;
 - train scientific staff for republican scientific and practical centres;
 - contribute to organisation of training seminars and workshops;
 - develop methodological literature;
 - perform telemedicine consultations;
 - undertake scientific analysis of data and preparation of publications.
- 4. State Institution "Republican Scientific and Practical Centre of Radiation Medicine and Human Ecology" (RCRM), Gomel will
 - take part in training of highly qualified staff in thyroidology;
 - build capacity of scientific staff;

- verify and introduce new diagnostics methods;
- organise training seminars/schools, conferences and workshops;
- take part in development of methodological literature.
- 5. Belarusian Red Cross Society (BRCS), Minsk will
 - undertake screening examination of population in various regions of the country;
 - verify and introduce new diagnostics techniques;
 - take part in organisation of seminars, conferences and training activities.
- 6. Republican Centre of Thyroid Gland Tumors (RCTGT), Minsk will
 - take part in development of protocols for treatment and rehabilitation of patients with thyroid disease;
 - participate in examination of patients with thyroid and other endocrinological disorders;
 - perform consultative examinations of individuals with the risk of developing thyroid/endocrinological disorders;
 - train scientific staff for republican scientific and practical centres;
 - contribute to organisation of training seminars and workshops;
 - develop methodological literature;
 - perform telemedicine consultations;
 - undertake scientific analysis of data and preparation of publications.
- 7. International partner Clinic and Policlinic of Nuclear Medicine, University of Würzburg, Germany will
 - take part in development, verification and selection of techniques, methodological approaches and protocols for treatment and rehabilitation of patients with thyroid disease;
 - participate in examinations of individuals with the risk of developing thyroid/endocrinological disorders;
 - assist in selection of methodological literature;
 - perform quality control;
 - contribute to establishment and technical support of the system of telemedicine consultations;
 - contribute to organisation of training seminars and workshops;
 - contribute to development of training and methodological literature;
 - undertake scientific analysis of data and preparation of publications.

МИНИСТЕРСТВО ЭКОНОМИКИ Республики Беларусь ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕХДУНАРОДНЫМИ ОРГАНИЗАЦИЯМ И КООРДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМО

Target groups

a) Patients:

Before the Centre becomes fully operational about 1,000 people in the Chernobyl-affected districts of Brest and Gomel regions, including those having no current complaints, will be a target group for epidemiologic research screening. In addition, about 2,000 patients with thyroid cancer and other thyroid diseases will be subject to dynamic observation as part of the project activities, including those from a cohort of patients covered by the currently closing Belarusian-American project.

The group of patients which will require assistance from the Centre of Thyroid Disease once established and fully operational consists of:

- Around 5,000 young patients being treated against thyroid cancer need special rehabilitation for retaining of fertility (which makes an estimated about 10,000 visits to the Centre per year because of the need of observations minimum twice a year);
- Around 15,000 of patients with other thyroid diseases (nodular goiter, thyrotoxicosis, autoimmune thyroiditis, etc.).

According to the expert assessments, nearly 800 paracentetic biopsies are estimated to be required per year.

Since enlargement of thyroid gland to a borderline state is observed in 20-30% of the population of Belarus, i.e. in approximately 2-3 million people, they all belong to a group of potential risk and will also be considered the project's target audience.

Population group with higher risk of thyroid cancer development consists of: 1) children exposed to ionising radiation in utero and during the first five years of their lives; 2) children with changes in the ultrasound image of the thyroid including decrease of thyroid volume or with nodules in thyroid up to 0.5 cm in diameter.

b) Medical personnel:

- endocrinologists of Belarus (a total of about 400);
- other medical professionals, including paediatricians, gynaecologists, therapeutists, oncologists, physicians of roentgen diagnostics;
- paramedical personnel working in the Chernobyl-affected districts of Belarus.

A total of about 1,000 experts will be involved in project educational, training and experience exchange activities per year.

Geographical area to be covered

The project focuses on the areas of Gomel, Mogilev and Brest Oblasts – regions of Belarus the most affected by the Chernobyl disaster.

The Center of Thyroid Disease is planned to be located in the capital city of Minsk which is easily accessible to potential patients and medical professionals from all regions of Belarus. Once the Centre is launched screening, diagnostics, monitoring, treatment and rehabilitation services will be provided to patients with thyroid diseases from all of the Chernobyl-affected areas (first of all to those suffering from thyroid cancer).

Before the Centre becomes fully operational screening and monitoring activities will be conducted in the Chernobyl-affected district of Gomel, Mogilev and Brest regions by the mobile teams of medical professionals.

Consultations, group lectures for patients, dissemination of methodological and information materials, seminars and conferences will be organized at the facilities of the Center and by the mobile teams of medical professionals traveling to the Chernobyl-affected districts of Gomel, Mogilev and Brest regions. Besides, the telemedicine mechanisms will be used to support the training and educational services.

RESULTS AND RESOURCES FRAMEWORK PART III.

Intended Outcome as stated in the Country Programme Results and Resource Framework: Create favourable conditions for socio-economic development of the Chernobyl-affected areas

Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:

Increase in citizens' active participation

Applicable Key Result Area (from 2008-11 Strategic Plan): Crisis prevention and recovery (Restoring the foundations for development)

Partnership Strategy: Project activities will be implemented by the organizations and the experts of organizations listed in Section "Stakeholders and Beneficiaries", Part II of this document in close cooperation with local and regional government bodies, the World Health Organisation (WHO) experts, UNICEF as well as other international organizations and projects.

Project title and ID (ATLAS Award ID): Establishment of International Scientific and Practical Centre of Thyroid Disease

INTENDED OUTPIITS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPON-	ż
			SIBLE	PUTS
			PARTIES	(EUR)
Expected project output:	1. Scientific and research work			
Fully functioning international scien-	Planned results:			
tific and practical Centre of Thyroid	a) the databases and biological materials bank have beer	materials bank have been created (activities 1.1-1.3);		
Disease aimed at studying spreading		atients with Thyroid Disease" has been optimized	and expanded	activity
and progression of thyroid abnormali-	1.4);			
ties in Belarus and at emigrance pro-	c) programmes aimed at elimination of iodine deficiency have been elaborated (activities 1.5-1.6);	have been elaborated (activities 1.5-1.6);		
tients with thyroid diseases	d) at least 10 publications per year are made in internation	year are made in international journals with high impact factor мира (activity 1.7).	ty 1.7).	
	Year 1. Database is expanded.	1.1. Further development of the database of	"Arnica"	000 6
Baseline:	Year 2. Database is updated and its shell program is	thyroid diseases in Belarus over the past 10 Foundation	Foundation	
a) Primary dataset has been accumu-	upgraded.	years.	UIPI	
lated, database shell needs further	Year 3. Database is expanded and integrated into the			
update and modification. Biological	optimised software tool.			
	Year 1. 500 patients covered.	1.2. Mass screening of patients by mobile	"Arnica"	35 000
is non-existent. Due to completion of	Year 2, 1000 patients covered.	screening teams for the sake of early diagnos-	Foundation	
a Belarusian-American project the	Year 3, 1500 patients covered.	tics of thyroid cancer, autoimmune diseases,	RCMRB	
dynamic screening or 12,000 patients		thyroid disfunctions. Performing of epidemi-		

С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ W KOOPUMHALISIN TEXHINECKON HOMOLIUM МИНИСТЕРСТВО ЭКОНОМИКИ OTALEM NO COTPYAHMYECTSY Республики Беларусь

² See page 29 in Annex 4 «Related programmes and other donor activities».

that need continuous monitoring has		ological research.	BRCS	
been practically suspended.			RCRM	
Enlargement of thyroid gland to a borderline state is observed in 20%-	Enlargement of thyroid gland to a Year 1. Preparatory measures taken on the develop- 1.3. Development of a biological materials "Armica" horderline state is observed in 20%-	1.3. Development of a biological materials	"Arnica"	24 000
30% of the population of Belarus.	ment of a biological materials bank.	bank (including cytological material and blood Foundation	Foundation	

b) The available pilot version of software for monitoring of patients with thyroid diseases requires substantial upgrade.

- take into account the specific needs of c) The existing national programs (ex., the program of salt iodisation) have a general character and do not concrete localities.
 - d) Information about results of activities of Belarusian experts and scientists is poorly presented in the international scientific publications.
 - e) Healthcare system lacks advanced technologies and equipment for servicing of patients with thyroid dis-
- f) A specialized organization focused hensive assistance to patients with thyroid diseases using the advanced methods of diagnostics, monitoring, tion is non-existent at the national on provision of high-quality compretreatment, follow-up and rehabilita-

special rehabilitation for retaining of Around 5,000 young patients being treated against thyroid cancer need

Around 15,000 of patients with other thyroid diseases (nodular goiter, thy-

97 850	ACTIVITY 1:	TOTAL FOR ACTIVITY 1:	
	BelMAPE	of scientific publications.	Year 3. 10 publications.
	Foundation	accumulated data followed up by production	Year 2. 10 publications.
11 400	"Arnica"	1.7. Coordination and statistical analysis of	Year 1. 5 publications.
	RCRM		Stolin and Mozyr districts covered by programmes.
	BRCS		Year 3. At least 2 schools and kindergartens in the
	BelMAPE	ciency.	developed.
	Foundation	grammes aimed at elimination of iodine defi-	Year 2. Draft area-specific programmes aimed at
6 750	"Amica"	1.6. Development of the area-specific pro-	Year 1. No target is set.
		kindergartens of Stolin and Mozyr districts and two - in Minsk).	
	RCRM	(through comparative screening of thyroid diseases prevalence in at least two schools and	
	BRCS	diseases in a post-Chernobyl period in Belarus	Year 3. Report on research results prepared.
	BelMAPE	ecological status on development of thyroid	Year 2. Screening undertaken.
7 / 00	"Armica Foundation	1.5. Studying of the influence of iodine, microelements and vitamins deficit and radio-	Year 1. Schools and Kindergartens identified for screening and as a basis for comparison.
			Year 3. Updated software tool put into operation.
	UIPI	toring of Patients with Thyroid Disease".	Year 2. The upgraded software shell developed.
	Foundation	a software tool "Automated System of Moni-	been formulated.
000 6	"Arnica"	1.4. Further development and optimization of	Year 1. Tasks for further software development have
			Year 3. The bank is filled in with specimen.
		genetic research).	eration.
	RCTGT	for further joint international molecular and	F Year 2. Required equipment procured and put in op-
	Foundation	bank (including cytological material and blood	ment of a biological materials bank.
24 000	"Arnica"	1.3. Development of a biological materials	Year 1. Preparatory measures taken on the develop-
	RCRM	,	
	BRCS	ological research.	

2. Diagnostics and treatment interventions

Planned results:

e) medical, telemedicine and office equipment and furniture, medical materials, pharmaceuticals and supplies-have been procured (activity 2.1);

тосрадоватум технической потепци C MEXIVHAPOLHSIAM OPLAHASALIMANM отдел по сотрудничеству

rotoxicosis, autoimmune thyroiditis,	thyroiditis,	Ú
etc.) also need the specialized medical	lized medical	ш
assistance.		ĭ

Nearly 800 biopsies are estimated be required per year.

g) Well-trained professionals in functional thyroid diagnostics, timely diagnostic puncture and radioiodin therapy for patients with thyroid diseases are lacking in the country. Belarusian specialists do not posses enough possibilities to exchange experience with colleagues inside the country and abroad. Endocrinologica patients need information materials ohigh quality presented in simple an easy-to-understand language, as well as the individual approach and empathetic treatment from medical person

h) There is no single information a resource Center on contempora methods of diagnostics and thera for experts-endocrinologists in Belrus. Relevant printed materials for medical professionals are lacking.

i) Access of local medical profession als to operational consultations withe leading national experts via tel medicine, as well as to knowledgand experience exchange opportunities needs to be improved.

Indicators:

a) Database containing informatic

		O MENTING OPTAHNBALLIAM		
	RCTGT	MMHMCTEPCTEO SKOHOMMKM PRODYSMAKM EGABYOP	Year 2. New medications and treatment schemes for thyroid diseases tested.	ation
21 000	"Arnica" Foundation RCMRB	2.5. Development and introduction of sophisticated treatment methods and technologies.	Year 1. Analysis of literature and assessment of techniques/methodologies for introduction in local conditions performed.	
			Year 3. The group for dynamic monitoring of up to 1000 patients maintained.	tele- ledge
	RCMRB			sion- with
12 000	"Arnica" Foundation	2.4. Monitoring of patients with thyroid disfunction by various nosological groups.	Year 1. The algorithms for dynamic monitoring developed. The groups of patients formed.	for
			Year 3. The results of using the new algorithm assessed.	erapy Bela-
			Year 2. activity of	n and orarv
25 000	BRCS	2.3. Early diagnostics.	Year 1. The algorithm for early diagnostics developed.	arson-
	((e and well
10.00			Year 3. Services provided to at least 7 thousand visits of nations not year. Once the Center becomes fully	ogical als of
	RCMRB	cal diseases.	risk group per year received access to diagnostics and treatment before the Center becomes fully operational.	e ex- e the
	Foundation	to thyroid and other associated endocrinologi-		ssess
25 000	"Arnica"	2.2. In-house selective screening with a view	Year 1. No target is set.	r uis- Bela-
	UNDP		Year 3. The remaining materials procured.	odine
	RCMRB			ly di-
100	Foundation	2.1. Procurement of equipment. Launching of the well-equipped clinical facility.	Year 2. Equipment and materials procured. equipment	func-
,		lies 2.2-2.6).		ed to
id patients	nade by thyro	It least 10 thousand visits to the Centre per year		
iagnostics,	assistance (di	provision of accessible, highly qualified medical	f) the practical clinical facility of the Center aimed at provision of accessible, highly qualified medical assistance (diagnostics,	iditis,
isonostice	pecietanne (d	monision of accessible highly melified medica	\vdash	7.4.0

С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ И КООРДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ!

on at least:	Year 3. Effectiveness of new treatment methods as-			
- Number of registered disease cases;	sessed.			
- Break-down of registered forms of	- Break-down of registered forms of Year 1. International literature studied.	2.6. Development of new approaches to fol- "Arnica"	"Arnica"	9 300
disease and complexity degree by re-	disease and complexity degree by re- Year 2. European monitoring protocols tested.	low-up and rehabilitation of patients with thy- Foundation	Foundation	
gion/sex/age/occupation etc.;	Year 3. European treatment protocols with new medi-	roid cancer and other radio induced thyroid RCMRB	RCMRB	
- Assessment of treatment methods in cations used (30 patients).	cations used (30 patients).	diseases.	RCTGT	
relation to each disease.		TOTAL FOR	TOTAL FOR ACTIVITY 2: 756	756
Diversity of collected samples of				400
blood, urine, biopsy materials, sperm,	blood, urine, biopsy materials, sperm, 3. Information activities, exchange of experience and knowledge	l knowledge		

3. Information activities, exchange of experience and knowledge Planned results:

Number of patients from risk groups

that received access to screening and treatment before the Centre becomes

serum, hair, and cytological materials.

- g) the educational, training and information facility of the Center for medical professionals and patients on various thyroidrelated issues has been created and functioning; At least 500 medical professionals and teachers, 1000 students and 20 organisations, including educational establishments, participated in trainings and internship programmes. At least 1000 participants have taken part in 4-6 conferences, seminars and workshops. Educational and training visits to exchange experience have been organised for at least 20 medical professionals. Up to 10 thousand individual consultations for thyroid patients conducted per year once the Center becomes fully operational, up to 10 workshops for groups of patients (2-4 workshops per target region) for at least 100 patients have been organized (activities 3.2, 3.3, 3.7, 3.8);
 - h) Methodological and information materials for medical professionals (5 titles) and patients (6 titles) have been developed (activity 3.1);

grammes aimed at elimination of iodine deficiency implemented on the basis of schools and kindergartens of

b) Software tool put into operation. c) Number of area-specific

fully operational.

d) Number of scientific publications,

Stolin and Mozyr districts.

their priority, impact factors of jour-

i) A network of interested medical professionals and partners and the system of consultation services has been built up. At least 20 organizations and 100 individuals take part in the network. At least 2 local hospitals are connected to the system of telemedicine consultations. At least 30 consultations per year are rendered to local hospitals (activities 3.4-3.6)

500				
of The Conton is fully conjugad with	Year 1. The structure and authors determined.	3.1. Development and publishing of the meth- ,,Arnica"	"Arnica"	19 250
the alanged equipment and materials	Year 2. Two titles of materials for medical specialists odological and information materials and bro- Foundation	odological and information materials and bro-	Foundation	2000
N. W. Long of Towns of The The Towns of The	and three – for patients developed, published and dis- chures for medical professionals and patients.	chures for medical professionals and patients.	BelMAPE	
screening services for thyroid and	seminated.	,	RCTGT	
other associated endocrinological dis-	Year 3. Three titles of materials for medical special-			
eases.	ists and three - for patients developed, published and			
Number of visits to the Centre per	disseminated.			
year made by thyroid patients once	year made by thyroid patients once Year 1. The structure, experts and schedule for intern- 3.2. Training and internship programmes for "Arnica"	3.2. Training and internship programmes for	"Arnica"	18 000
the Centre is fully operational (broken	ship programs determined. The awareness raising	The awareness raising medical professionals at the Center facilities.	Foundation	
down by the type of services).	programs for the second year developed. Information	A TABLE TO THE PROPERTY OF THE	BelMAPE	
Number of new schemes of thyroid	Number of new schemes of thyroid about programs and internships disseminated among	MNHMCTEPCTBO OKOHOMWKN		
disease treatment and European monit. the target groups.	the target groups.	Pechyonaka Marchan		

disease treatment and European moni- | the target groups. Number of new schemes of thyroid

И КООРДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ с междунлродными организациями

	12 800	4 500	006	19 450	17 380
	"Arnica" Foundation BeIMAPE RCRM	"Arnica" Foundation UIPI	"Arnica" Foundation BelMAPE	"Arnica" Foundation BeIMAPE UIPI	"Amica"
	3.3. Organisation of conferences, seminars and workshops in Minsk and local clinics of the Chernobyl-affected areas.	3.4. Connection of local clinics to ADSL-Internet.	3.5. Creation of a network of relevant medical professionals and partners for knowledge dissemination and experience exchange.	3.6. Pilot and promote the telemedicine consultations and training. MUHINCTEPCTBO ЭКОНОМИКИ PRONYGNИКИ БОЛАРУСЬ	3.7. Visit and training Ischemes Min Warzburg C MEX AVEN POLYMEN OF TANKS HAMMEN OF THE STANKS HAMEN OF THE STANKS HAMMEN OF THE STANKS HAMMEN OF THE STANKS HAMEN OF THE STANKS HAMEN OF THE STANKS H
Year 2. The structure, experts and schedule for internship programs for the third year of project determined; materials for education programs developed. At least 200 medical professionals and teachers, 300 students and 10 organisations have taken part in the programs and internships. Year 3. At least 300 more medical professionals and teachers, 700 more students and 10 more organisations covered.	Year 1. Topics and schedule of events defined. The information materials and calls for participation in the conferences prepared and disseminated. Year 2. 2-3 conferences and seminars with at least 500 participants held. Materials thereof collected and published. Year 3. 2-3 conferences and seminars with at least 500 new participants held. Materials thereof collected and published.	Year 1. Target hospitals identified. Year 2. At least 2 local hospitals connected to the telemedicine consultations system. Year 3. No target is set.	Year 1. Preparatory activities for network establishment undertaken. Year 2. The network is formed and the information is regularly disseminated within it. Year 3. At least 20 organisations and 100 individuals take part in the activities of the network.	Year 1. Preparatory work undertaken. Year 2. At least 30 telemedicine consultations rendered to at least 2 local hospitals. Year 3. At least 30 telemedicine consultations rendered to at least 2 local hospitals.	Year 1. The schedule of visits for experience ex-
g) Number of teachers, students and educational establishments that took part in trainings and internship programmes. Number of conferences, seminars and workshops and their participants. Number of medical professionals who have made educational and training	Number of individual consultations for thyroid patients conducted per year during their visits to the Center. Number of practical workshops for groups of patients (per target region). h) Number and circulation of methodological and information materials.	y Number of organizations and individuals taking part in the network. Number of local hospitals participating in the system of telemedicine consultations.	Number of telemedicine consultations performed.		

change defined.	Germany; Endocrinological Scientific Center	Foundation	
Year 2. The visits organised according to the sched-		BelMAPE	
ule.	Kussian Academy of Medical Sciences,	Würzburg	
Year 3. The visits organised according to the schedule. In totally at least 20 medical professionals are involved.	Ubninsk), including participation at the international conferences.	University Clinic	
Year 1. The subjects of group consultations and the target audience defined.	3.8. Educating patients on various thyroid-related issues during screening to increase	"Arnica" Foundation	3 000
Year 2. Up to 3 thousand individual consultations	awareness and enhance self-assistance capa-	BelMAPE	
rendered per year. Up to 5 group consultations (1-2 in each target region for an average of 50 patients each) performed.	bilities of patients and to educate them on various thyroid-related issues.	RCTGT	90 NO. CU - 100 NO.
Year 3. Up to 6-10 thousand individual consultations			
per year relidered once the Center becomes fully operational. Up to 5 group consultations (1-2 in each			
target region for an average of 50 patients each) performed.			
	TOTAL FOR ACTIVITY 3:	ACTIVITY 3:	95 280
Project management, including contingency reserve:			911
Including UNDP contribution:			942
			000
	IND	UNDP GMS Fee:	70 243
	PROJE	PROJECT TOTAL: 1 136 715	1 136 715

PARTIV. BUDGET

#Desertption	Albs Girat of ave counts	Troell, blure	<u>Wear</u> 11	Year 2	Vent 3
	\mathcal{C}	3	7	9	95
Foreign Consultants	71200	6 300	006	2 700	2 700
Local Consultants	71300	143 400	29 200	57 100	57 100
Service Contracts – Individuals	71400	63 000	12 600	25 200	25 200
Travel	00912	25 010	5 005	10 629	9 3 7 6
Service Contracts – Companies	72100	11 620	4 200	4 220	3 200
Equipment and Furniture	72200	46 000	46 000	0	0
Materials and Goods, including medical equipment	72300	523 100	471 460	25 320	26 320
Communications and Audio Visual Equipment	72400	2 000	006	2 000	2 100
Supplies	72500	1 500	300	009	009
Information Technology Equipment	72800	7 450	7 450	0	0
Rental and Maintenance – Premises	73100	190 500	38 100	76 200	76 200
Rental and Maintenance of Other Equipment	73400	000 6	1 800	3 600	3 600
Audio Visual and Printing Production Costs	74200	20 550	4 300	7 250	000 6
Miscellaneous Expenses	74500	14 042	4 560	4 740	4 742
TOTAL		1 066 472	626 775	219 559	220 138
UNDP GMS Fee	75100	70 243			
GRAND TOTAL, EUR		1 136 715	AND THE PROPERTY OF THE PROPER	en alemane en e	harana tana tana tana tana tana tana tana
			IAMIAINI	WINTERCLEO SKOHOMNKM	AMKM

Республики Беларусь ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕХДУНАРОДНЫМИ ОЯГАНИЗАЦИЯМИ I КОСРЦИМАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ

PART V. MANAGEMENT ARRANGEMENTS

The project will be implemented under the National Execution modality in accordance with the UNDP rules and procedures. The project national executing entity is the Ministry of Healthcare of the Republic of Belarus. The leading implementing agency is the "Arnica" Foundation.

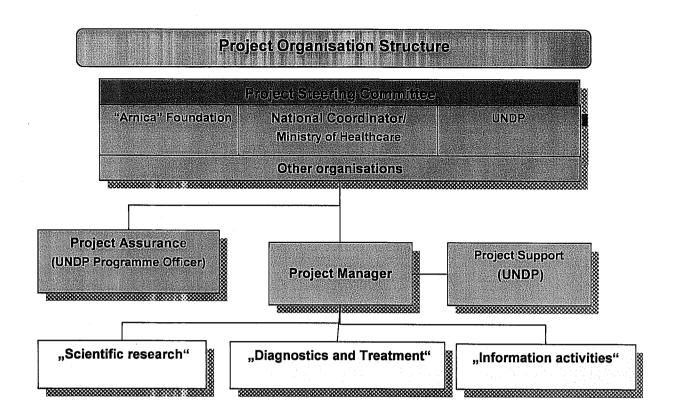
The Ministry of Healthcare of the Republic of Belarus (Ministry of Healthcare) will appoint a National Project Coordinator who will be responsible for the general coordination of project activities, representing and supporting the project objectives at the relevant decision making levels. The National Coordinator will hold responsibility for implementation of the project as a whole.

The Ministry of Healthcare jointly with the National Project Coordinator will be fully responsible for planning and overall management of the project activities and for reporting to the Belarusian state authorities.

Recipients of international technical assistance under the project, implementing partners and other stakeholders will form the Project Steering Committee (PSC). PSC will monitor and analyze the project implementation process and give recommendations on the most effective project implementation strategy to ensure that the planned results are achieved, related activities are coordinated, advocate on behalf of the project and approve annual work plans (see Annex 3). The PSC will be composed of UNDP, the Ministry of Healthcare, "Arnica" Foundation, European Commission, the Ministry for Emergencies, World Health Organisation, RCMRB, UIPI and BelMAPE.

The UNDP Programme Officer responsible for the Chernobyl portfolio will have supervision responsibilities for the project in order to ensure that project activities are implemented in time and to facilitate in-office expertise as well as support for contractive and procurement, help coordinating with other UNDP relevant projects and with projects of other donors.

A Project Manager selected on a competitive basis will be responsible for the day-to-day management of project resources in accordance with the UNDP rules and procedures and for implementation of project activities based on the approved annual workplans. The Project Manager will be accountable to the UNDP and will ensure close coordination with the national executing entity and the "Arnica" Foundation. The detailed annual workplan for the first year of project implementation will be developed by the Project Manager in cooperation with the leading implementing organisation upon his/her recruitment. Detailed annual workplans for subsequent years will be developed within the timeframes envisaged by the UNDP rules and procedures. The workplans will be approved by the PSC and signed by the UNDP and the Ministry of Healthcare. The Project Manager will inform the UNDP Office on any delays or problems arising in the process of project implementation to enable timely and efficient undertaking of support measures or alterations to the project document and project events.



PART VI. MONITORING AND EVALUATION

МИНИСТЕРСТВО ЭКОНОМИКИ
Республики Беларусь
ОТДЕЛ ПО СОТРУДНИЧЕСТВУ
С МЕЖДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ
КООРДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ

Monitoring

Project monitoring will be conducted in accordance with the standard procedures. Project monitoring and evaluation will be based on a recurrent assessment of progress in achievement of definite project results and project goals.

The primary monitoring responsibility regarding performance indicators rests with the Project Manager.

The monitoring and evaluation plan will be developed by the Project Manager and agreed with UNDP and the national executing entity. The plan will be subject to approval by the PSC.

The UNDP Office will conduct periodic monitoring of project implementation through site visits and the mechanism of PSC meetings held at least twice a year or more often if necessary. This will allow the stakeholders to promptly trace and eliminate any problems relating to the project and will ensure continuous implementation of project activities.

Project monitoring and evaluation will also be carried out in accordance with the *Regulations on the Procedure of Evaluating the Implementation of International Technical Assistance Projects and Their Efficiency* approved by the Resolution of the Council of Ministers of the Republic of Belarus No 1513 of 26 November 2004.

QUALITY MANAGEMENT

EXPECTED OUTPUT: Fully functioning international scientific and practical Centre of Thyroid Disease aimed at studying spreading and progression of thyroid abnormalities in Belarus and at enhancing provision of practical assistance to patients with thyroid diseases				
Purpose:	- to advance the knowledge about the mechanisms of development, ways of prevention, and improvement of management of thyroid diseases and cancer, advance the skills of early diagnostics of thyroid pathologies and cancer;			
	- to provide high-quality medical services to patients with thyroid and other associated endocrinological diseases in a well-equipped functional facility using new diagnostic technologies;			
	- to increase the level of expertise of medical professionals in application of new equipment/methods and enable intra-country knowledge and experience exchange; stimulate the experience exchange with leading international thyroid research centres; increase the awareness and self-assistance capabilities of patients.			
Description	See Part III of this project document			

Quality Criteria	Quality Method	Date of As- sessment
 a) Database with information on at least: Number of registered disease cases Break-down of registered forms of disease and complexity degree by region/sex/age/occupation etc. Assessment of treatment methods in relation to each disease 	Report on the database creation Database entries Database of visual information (ultrasound computer and tomography records)	
Diversity of collected samples of blood, urine, biopsy materials, sperm, serum, hair, and cytological materials	Report on the biological materials bank creation Registry of the biological materials bank	
Number of patients from risk groups that re-	Mass screening	- 1

ceived access to screening and treatment before the Centre becomes fully operational	Selective control monitoring of medical establishments/patients (through registries verification or patients questionnaires)	
b) Software tool is put into operation	Initial and upgraded software	
c) Number of area-specific programmes aimed at elimination of iodine deficiency imple- mented on the basis of schools and kindergar- tens of Stolin and Mozyr districts	Monitoring of kindergartens and schools Selective control monitoring of medical establishments/patients (through registries verifications or patients questionnaires) Reports with description of area-specific programmes aimed at elimination of iodine deficiency for Stolin and Mozyr districts	
d) Number of scientific publications, their priority, impact factors of journals	Scientific publications	· -
e) The Center is fully equipped with the planned equipment and materials	Technical documentation for procurement of equipment and materials Inventory records	
f) Number of people that received screening services for thyroid and other associated endocrinological diseases. Number of visits to the Centre per year made by thyroid patients once the Centre is fully operational (broken down by the type of services). Number of new schemes of thyroid pathology treatment and European monitoring protocols tested	Records of screening and patient visits Reports by the Centre's staff Random surveys of services quality among patients Database with assessment of treatment methods for each disease Descriptions of early diagnostics algorithms and dynamic monitoring of patients. Reports on introduction of the developed algorithms and assessment of their results.	·
g) Number of teachers, students and educational establishments that took part in trainings and internship programmes. Number of conferences, seminars and workshops and their participants. Number of medical professionals who have made educational and training visits to exchange experience. Number of individual consultations for thyroid patients conducted per year during their visits to the Center. Number of practical workshops for groups of patients (per target region).	Samples of information materials on trainings and internship programmes Reports of trainees and interns Samples of information materials and calls for participation in the conferences and seminars. Conference and seminars proceedings Visit reports of medical professionals Records of patient visits in the database Random quality monitoring of practical workshops through anonymous questionnaires of patients	
h) Number and circulation of methodological and information materials	Samples of publications	
i) Number of organizations and individuals taking part in the network. Number of local hospitals participating in the system of telemedicine consultations. Number of telemedicine consultations performed.	Email circulation lists МИНИСТЕРСТВО ЭКОНОМИКИ Республики Беларусь ОТДЕЛ ПО СОТРУДНИЧЕСТВУ С МЕУ ПУНАРОДИБИЛИ ОРГАНИЗАЦИЯМИ И КОСРДИМАЦИИ ТЕХНИЧЕСКОЙ ПО МОЦ	The state of the s

PART VII. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of the Republic of Belarus and United Nations Development Programme, signed by the parties on 24 September 1992.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

PART VIII. ANNEXES

ANNEX 1. DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

Support services	Schedule and procedure for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Method of reimbursement of UNDP (where appropriate)
1. General administration:			
- travel arrangements;	upon request of the project man- ager	according to UPL*	Quarterly Implementa- tion Support Services (ISS) charges
- pouch incoming and outgoing	as required	CO Pricelist	(****)*********************************
2. Finance:			
- processing of direct pay- ment requests;	upon request of the project manager	According to UPL	Quarterly ISS charges
- certified financial reports	annually	GMS charges in per- centage of cost- sharing	GMS fee
3. Computer related services:			
- Internet connectivity - IT consultancy.	as requested		In accordance with the methodology of calculating Internet cost, accepted by UNDP office
4. Procurement services	upon request of the project man- ager	According to UPL	Quarterly ISS charges
5. Programme support:			
- assistance in personnel selection and issuance of contracts;	upon request of the project man- ager	According to UPL	Quarterly ISS charges
- assistance in project monitoring and evaluation.	in line with the UNDP Office evaluation plan	GMS charges in percentage of cost-sharing	GMS fee
6. Service of the UNDP's Communication Officer to visualize the project outputs (conferences, briefings, publications and so on)	In accordance with the CO communications activities	1% of TRAC resources contributed to the project	

ANNEX 2. TERMS OF REFERENCE FOR THE PROJECT MANAGER

Duration	12 months, with possible extension based on a performance evaluation				
Work schedule	Full-time				
Section/unit	Programme				
Contract type	SC				
Specific condition	Payment according to contract				
DUTIES					
	ger (PM) assumes overall responsibility for the successful implementation of the project ac-				
	hievement of the planned project outputs. He/she oversees the day-to-day development of the				
	orks closely with the Implementing Agency and the UNDP Country Office (CO). The Project				
	fulfilling the following duties:				
Management	Be responsible for the daily management of the project – both organizational and substan-				
	tive matters.				
	Prepare annual work plans in consultation with the Implementing Agency and the UNDP				
	Country Office.				
	Ensure adherence of the project implementation to the project's work plan.				
1	Supervise the work of all project staff and project consultants.				
Organizational	Ensure the timely execution of assignments undertaken by the project staff, national con-				
tasks	sultants and sub-contractors.				
	Practical preparation of the Project Steering Committee (PSC) and follow-up of sittings, as				
	well as performance of functions of Secretary during these sittings.				
	Provision of organizational support and assume overall responsibility for the proper han-				
	dling of logistics to project seminars, study tours and trainings.				
	Draft detailed Terms of Reference (ToR) for all project inputs/services.				
	Provision of practical support to foreign consultants visiting Belarus in the framework of				
	the project.				
Communication	Ensure adequate information flow, discussions and feedback among the various project				
	stakeholders.				
	Dissemination of information about the project activities and results.				
Monitoring	Monitor the expenditures, commitments and balance of funds under the project budget				
	lines.				
	Conduct project monitoring and prepare analytical and financial reporting.				
	Prepare mid-year and final project reports according to the established procedure for				
	evaluation of international technical assistance projects as approved by the Council of Min-				
	isters of Belarus as well as progress reports requested by the UNDP.				
Performance of an	ny other duties in connection with project activities to ensure effective implementation of the				
project, which are	within his/her competence as PM				
Qualifications	University degree in the sphere directly devoted to sustainable development and/or man-				
	agement, international relations, political science, etc. Advanced degree is an asset.				
	At least 3 years of experience in management of strategy-development, policy-oriented or				
	complex multi-stakeholder projects, including international.				
	Minimum 5 years of experience with international/donor organizations.				
	Experience in the field of minimizing consequences of the Chernobyl catastrophe and/or				
	related fields is desirable.				
	Outstanding organisational skills.				
	Outstanding interpersonal and communication skills, tact, ability for team work, ability to				
	work well under stress and to tight deadlines.				
	Experienced user of personal computer.				
	Excellent writing, communication and reporting skills.				
	Excellent written and spoken Russian and English.				
	министерство экономики				
	Республики Беларусь				

ANNEX 3. TERMS OF REFERENCE FOR THE PROJECT STEERING COMMITTEE

The Project Steering Committee (PSC) will be created to monitor the project implementation and advising on strategic project issues. It shall consist of representatives from the following organisations:

- 1 representative from the national executing entity the Ministry of Healthcare;
- 1 representative from UNDP;
- 1 representative from the "Arnica" Foundation;
- 1 representative from EC;
- 1 representative from Ministry for Emergencies;
- 1 representative from World Health Organisation;
- 1 representative from RCMRB;
- 1 representative from BelMAPE;
- 1 representative from UIPI.

Each organisation shall appoint its representative to the PSC. The National Coordinator performs the functions of the Chairperson. The members of the PSC shall be convened by the UNDP for an initial meeting after the project is approved.

1. Functions

The main functions of the PSC include:

- Analysis and elaboration of recommendations on the project implementation strategy and longterm planning.
- Evaluation of the attained results and provision of information on them to the larger public.
- Consideration and selection of ideas and proposals for further development and promotion within the project framework.
- Maintenance of contacts with appropriate national and international institutions.
- Approval of annual work plans

2. Procedures

- The PSC shall be convened as deemed necessary, but no less than twice a year.
- The time and venue of the sittings shall be coordinated by the project manager with its members. Each PSC member must be informed on the venue, time and agenda in advance.
- The Project Manager shall act as the PSC executive secretary. He/she shall also be responsible for the preparation of the materials required for the PSC sittings.
- The agenda and time-limits shall be adopted at each sitting.
- The PSC sittings shall be legally competent if quorum is in place when at least half of the PSC members are present.
- In exceptional cases, the PSC members may be polled by telephone or email.
- All organisations involved in the project are entitled to submit proposals to the PSC.
- The PSC sitting minutes shall be signed by the Chairperson.
- The PSC decisions shall be taken through an open vote procedure.
- Representatives of appropriate state structures, business associations and NGOs can be invited to the PSC sittings as deemed necessary.

ANNEX 4. BACKGROUND INFORMATION

МИНИСТЕРСТВО ЭКОНОМИКИ
Республики Беларусь
ОТДЕЛ ПО СОТРУДНИЧЕСТВУ
С МЕХДУНАРОДНЫМИ ОРГАНИЗАЦИЯМИ
И КООРДИНАЦИИ ТЕХНИЧЕСКОЙ ПОМОЩИ

PROBLEM DESCRIPTION

The world's worst nuclear accident occurred in Chernobyl on 26th April, 1986. It released at least 100 times more radiation than the atomic bombs dropped on Hiroshima and Nagasaki. More than 70% of this fallout landed in Belarus and over one-fifth of its land – mainly in the South and Southeast - has been radioactively contaminated.

Map of the radiation hotspots resulting from the Chernobyl Nuclear Power Plant Accident



The affected territory included 3,600 settlements with approximately 2.5 million inhabitants. Out of six regions of Belarus, the areas of Gomel, Mogilev and Brest Oblasts were the most affected. Overall, 21 districts in Belarus were severely influenced. According to national statistics, some 135,000 people have been resettled. However, it is estimated that about 1.3 million people still live today in areas of significant contamination (14% of the total population of Belarus).

The accident has seriously influenced people's lives and in subsequent years the population in the affected areas experienced the long-lasting consequences of the accident, including but not limited to:

1. Economic decline: Destabilised income security due to limitations in industrial production and disrupted agricultural production (the main source of income for most population in the affected territories), and stig-

³ Data was sourced from the World Bank's *Belarus: Chernobyl Review* (2002), UN Report *Human Consequences of the Chernobyl Nuclear Accident – A Strategy for Recovery* (2002), *The Chernobyl Forum: 2003-2005*, *Belarus National Human Development Report* (2004-2005).

⁴ Map source http://en.wikipedia.org/wiki/Image:Chernobyl_radiation_map_1996.svg, copyright Chernobyl radiation map from CIA handbook, original source http://www.lib.utexas.edu/maps/commonwealth/chornobyl_radiation96.jpg.

matisation of products coming from the area, all these lead to lower wages, higher unemployment, rising poverty levels and dependency on (insufficient) social welfare handouts. The negative impact of the Chernobyl accident was greatly exacerbated in the 1990s by economic turmoil caused by factors unrelated to radiation, in particular the collapse of the Soviet Union.

- 2. Poor health conditions: Continuing radiation exposure mostly through consumption of contaminated local produce has been linked to various health problems (in particular related to thyroid pathologies). A well-established increase in thyroid cancer diagnosed in children and adolescents possesses one of the major problems for health services. In the short-term period after the accident the physical health of the affected people was often compounded by psychological health disorders following accident and relocation trauma.
- 3. Inadequate local infrastructure and distorted demographic structure: Years of underinvestment, partly caused by the high cost of cleaning up contaminated areas and social welfare as well as initial resettlement plans with regard to some of the most contaminated districts, have resulted in dilapidated basic infrastructure and services in health, education, water supply and sanitation. As a result of resettlement and voluntary migration, communities in the contaminated areas suffer from highly distorted demographic structure, with an abnormally high percentage of elderly individuals. Aging populations have local birth and death rates that differ considerably from the average, thereby adversely affecting perceptions and heightening fears about health risks.
- 4. Low awareness and culture of dependency: Many people still lack the necessary knowledge, skills and attitude to live safely under the conditions of low-dose radiation exposure. Special attention should be paid to children from rural schools and rural population in general where the problem of radiation safety is very acute due to consumption of fruits of the forest and of food products grown on household land plots. Moreover, the socio-economic legacy of Chernobyl is a culture of dependency and passiveness among the affected population, fuelled by government subsidies and support payments that undermined the motivation and capacity of individuals and communities to tackle their own social, economic and environmental problems. Many still view themselves as helpless, weak and lacking control over their future.

The consequences of the catastrophe have been a national priority of the Belarusian government since the country acquired independence in 1991. The Government adopted three consecutive state programmes on mitigation of consequences of the Chernobyl Nuclear Power Plant accident and according to its figures, the costs of dealing with consequences of Chernobyl has been of 6-25 % of Belarus annual budget, amounting till now to a total of over USD 17 billion.

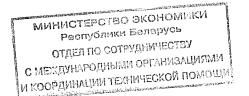
At the same time during the past twelve years the international community brought an estimated average of about USD 50 million per year in direct registered humanitarian aid and much more indirectly and often unregistered through various NGOs and organisation of recuperative visits for Belarusian children. Accurate statistics for the earlier period of Belarus' independence and for the period of existence of the Soviet Union is non-existent.

Since 1986 United Nations system organizations and major non-governmental organizations and foundations have launched more than 230⁵ different projects in Belarus, Ukraine and Russia in addition to significant rehabilitation efforts taken by the governments of the three countries.

Continued international assistance and co-operation is necessary to help national governments and regional and local stakeholders promote the social and economic recovery of affected communities and address other needs, both those specific to Chernobyl and those affecting the general population.

In particular, there is a continuing need to treat thyroid cancer, especially in those who were children at the time of the accident, and to provide clinical follow up to thyroid patients. While the disease is not generally fatal, the treatment is expensive and demanding upon resources. International research and studies (including the 2002 UN Report *Human Consequences of the Chernobyl Nuclear Accident – A Strategy for Recovery* (hereinafter referred to as 2002 UN Report) and the Chernobyl Forum) call for further investigations and screening to ensure that those suffering from radiation induced thyroid pathologies receive adequate support. They also appeal for the international community to accept a share of responsibility for ensuring that the necessary resources are available.

New, innovative ways should be found to involve the local population in the actions devoted to amelioration of living conditions in Chernobyl-affected territories. Economic development aimed at restoring community self-sufficiency is key to building sustainable livelihoods and should be at the centre of strategies to address



⁵ http://chernobyl.undp.org/english/countries.html

the effects of Chernobyl. This aim should be pursued in a way that gives individuals and communities control over their own futures, as this approach is both efficient in terms of resources and crucial in overcoming the psychological and social effects of the accident. Parallel to those health-related and awareness-rising initiatives must still be taken at the community level.

In this regard the contribution of international community in post-Chernobyl recovery can only be effective if it supports, amplifies and acts as a lever for change in the far larger efforts made by local and national government agencies and the voluntary sector.

CURRENT STATE OF AFFAIRS IN THE RELEVANT SECTOR

Since Belarus acquired independence in 1991, the objectives of the Belarusian government have been to limit health risks to the population, to implement social protection measures and to reduce the environmental and economic consequences of the disaster. Initially, their approach reflected the needs of the moment. It was emergency-driven and dominated by top-down provision of services. It generally succeeded in minimising radiation exposure, in developing large-scale farming and processing technologies to reduce the radiation content in food and in providing basic care for those suffering from thyroid cancer and other illnesses.

A system of special healthcare surveillance was put in place for those affected by the Chernobyl disaster. At present health status of over 1.3 million of people, including around 260 children is regularly monitored through this system. Nonetheless, public health indicators in Chernobyl-affected areas of Belarus remain significantly worse than elsewhere in the country. The accident has affected the incidence of cancer. It is thought, however, that the symptoms of most cancers may take longer to appear; accordingly, it may be too early to evaluate the full radiological impact of the accident on human health.

The most significant medical consequence of the Chernobyl accident acknowledged to date is the growth of radio-induced thyroid diseases and pathologies in children and adolescents. Enlargement of thyroid gland to a borderline state is observed in 20%-30% of the population of Belarus, i.e. in approximately 2-3 million people (nodular goiter is observed in 20% of population; thyroid cancer - in 13000 patients; thyrotoxicosis - in 15000 patients). The actual thyroid cancer morbidity rate in Belarus during the post-Chernobyl period has significantly exceeded the initially forecasted values by factor of 100 and more. Analysis of the official Belarusian statistics for 1992-2004 reveals the growth of morbidity with acquired hypothyroidism in children's and adolescent's age especially in Gomel, Mogilev and Brest regions, and shift of thyroid cancer morbidity since 1999 from the children's age groups to adolescent's age groups, and since 2001 – from adolescent's age to morbidity of young adults groups.

Even though close attention was paid to this problem during the 20+ years period after the Chernobyl accident, the reasons for growth and mechanisms of development of thyroid diseases in Belarus still require research since development of many thyroid diseases is known to have a longer latent period after radiation exposure, up to 20-30 years.

Overview of the current health care system in Belarus shows the absence of a specialized organization, which would render high-quality focused assistance to endocrinological patients, especially to those with thyroid diseases, at the national level. Specific problems exist with estimations of the functional status of the thyroid gland; procurement of reagents of the adequate quality; carrying out of radioiodine therapy for patients with thyroid diseases; carrying out of the timely diagnostic puncture. Substantial resources and well-trained professionals are required to address these problems.

As the years have passed, it has become apparent that insufficient attention was given to economic development of the region and to boosting self-reliance and confidence of the people and communities concerned. Despite reduced public radiation intake, many rural residents are still over-exposed - mainly through food consumption. Too little emphasis has been placed on understanding those who have adjusted to living in the contaminated zones; and their needs for better information from reliable, trustworthy sources and for programmes that promote healthy lifestyles and personal initiative.

The affected areas are clearly lagging behind in development in comparison with the rest of the country for reasons that are specifically related to the Chernobyl disaster. As a result, they are not able to benefit to the same extent from national policies and programmes. The complexity of the situation calls for integrated and holistic approaches addressing economic, social, health, psychological and technical-scientific factors in conjunction with the need to support people to proactively improve their living conditions and livelihoods. In particular, it is important to reach out to those people and communities who feel marginalized and excluded and seem to have "opted out" from society.

The high cost of top-down, subsidy-based programmes, coupled with limited budgetary resources has created strong sustainability concerns. Responding to these challenges and following up on the recommendations developed as a result of international studies under the UN auspices in early 2000s, the government has begun to shift focus from emergency assistance to long-term rehabilitation and sustainable development, combining top-down provision and centralised economic development measures with employment promotion, improvement of living standards, emphasis on primary health care and prevention, and community revival.

The task of combating the consequences of Chernobyl and ensuring that the state programmes on mitigation of consequences of the Chernobyl Nuclear Power Plant accident are implemented successfully is shared by a number of relevant government agencies, including the ministries of healthcare, agriculture and foodstuffs, forestry, natural resources and environment protection, education, labour and social protection, economy, finance, housing, the Academy of Sciences, as well as the regional and local authorities. The Ministry of Emergency Situations plays a major role in the rehabilitation process and is responsible for coordination of efforts of all recovery stakeholders both at the national level and with international partners.

The following main laws regulate the issues related to the consequences of Chernobyl accident in Belarus:

- The Law "On Social Protection of the Citizens Who Have Suffered from the Accident at the Chernobyl Nuclear Power Plant" No 634-XII of 22 February 1991 (with amendments and additions) defines the status of contaminated territories, the status of citizens living there, social privileges to participants and liquidators of the catastrophe, and also the population who suffered from accident as far as social, medical, and pension matters are concerned.
- The Law "On Legal Regime for Territories Exposed to Radioactive Fall-out as a Result of the Accident at the Chernobyl Nuclear Power Plant" No 1227-XII of 12 November 1991 defines the status of territories and their characteristics depending on a degree of contamination, the procedures for relocations from the highly contaminated territories as well as the procedures for use of territories affected by the radioactive fall-out.
- The Law "On Sanitary and Epidemic Welfare of the Population" No 2583-XII of 23 November 1993 (with amendments and additions) covers the Chernobyl-related aspects of the state sanitary and epidemiologic control, the rights of citizens to favourable living environment, to compensation of damage caused to health and property, etc.
- The Law of Belarus "On Radiation Safety of Population" No 122-Z from 05 January 1998 (with amendments and additions) defines principles and actions necessary to ensure radiation safety as well as regulates registration of dozes, accumulation of radio nuclides and other relevant matters, including issues of storage and use of radioactive substances.

In addition to the above laws there is a range of legal documents which regulate the issues related to specific problems and scope of activity of both state and non-state structures and organisations.

RELATED PROGRAMMES AND OTHER DONOR ACTIVITIES

Current major international initiatives with overall focus on post-Chernobyl recovery include, amongst others, the "Cooperation for Rehabilitation" (CORE) Programme, the funding of a dedicated website to Chernobyl issues, the Chernobyl Forum, a scientific forum under the aegis of the International Agency of Atomic Energy (IAEA), and the International Chernobyl Research and Information Network (ICRIN) aimed at addressing the information needs of the population living in the affected territories.

Projects and studies specifically related to thyroid pathologies

A Belarusian-American project on the problems of thyroid diseases has been implemented in Belarus since 1994 and is presently at the stage of finalisation (the screening has been suspended in 2007). The project represents an epidemiologic research "Cancer and Other Thyroid Diseases Induced by Chernobyl Nuclear Power Plant Accident" covering a cohort of about 12,000 patients. The project is carried out by the Republican Scientific and Practical Centre for Radiation Medicine and Ecology of the Man based in the city of Gomel and is financed by the National Institute of Cancer, USA. It is foreseen that the project will be completed within the next 1-2 years.

Another project aiming at the establishment of the biological thyroid materials bank initiated by the European Commission in 1995-1998 (Chernobyl Tissue Bank)⁶ has been suspended in Belarus. At the same time, identical project is successfully being implemented in the Ukraine and the Russian Federation.

⁶ http://chernobyltissuebank.com/results.html

Thyroid cancer detection is also the chief concern of the International Federation of Red Cross and Red Crescent Societies (IFRC). Together with national Red Cross Societies of Belarus, Ukraine and Russia, IFRC continues to implement its long-term Chernobyl Humanitarian Assistance and Rehabilitation Programme (CHARP), providing health screening and psychological support to the affected population. The program's goal is to help identify thyroid gland cancer and other thyroid pathologies in remote rural villages where state health authorities have little capacity, and provide referrals for further treatment.

CHARP services are rendered by six mobile diagnostic laboratories (MDLs) in the Brest, Gomel, and Mogilev regions of Belarus; the Rivne and Zhytomyr regions of Ukraine; and the Bryansk region of Russia. The MDLs focus on high-risk groups and screen about 90,000 persons annually in three countries. Screenings in 2004-2006 detected more than 200 thyroid cancer cases each year. The diagnostic abilities and quality of examinations provided by the MDLs have improved thanks to the acquisition of new, sophisticated equipment, staff training, and the introduction of modern screening techniques. Long-term sustainability will be ensured by transferring program responsibilities to national Red Cross societies and gradually integrating CHARP activities into national health care systems.

The increase in thyroid cancers caused by Chernobyl has focused attention on the iodine deficiency that is endemic in the region. Research has suggested that iodine deficiency worsened the impact of Chernobyl radiation by hastening the uptake of radioactive iodine by the thyroid. But iodine deficiency is a serious health problem in its own right, causing developmental delays in children and, in severe cases, mental retardation. Moreover, it is easily and affordably treatable through the consumption of iodized salt. Therefore, as one of the means to eliminate iodine deficiency UNICEF has made achieving universal salt iodization (USI) a priority. Introduction of USI legislation in Belarus, Ukraine and Russia was a centerpiece of UNICEF advocacy efforts in 2006. In Belarus, UNICEF technical assistance has helped to enhance national capacities for monitoring of iodized salt quality and availability in retail trade and its use in food processing and public catering. The history of projects related to thyroid medicine and undertaken in Belarus by various donors and partners also includes:

- 1992-1996: WHO International Program on the Health Effects of the Chernobyl Accident (IPHECA);
- 1998-2002: Screening of thyroid status of children exposed to ionizing radiation "in utero" and during the first year of life as a result of the Chernobyl accident, together with the Clinic and Policlinic of Nuclear Medicine, Würzburg University, Würzburg, Germany;
- 1999-2001: WHO International Thyroid Project (ITP) aimed at development of screening strategies and elaboration of recommendations for screening methodologies;
- 2000-2003: Pubescence of Adolescence and State of Reproductive System in Young Adults having Thyroid Carcinoma implemented with support from the Clinic and Policlinic of Nuclear Medicine, Würzburg, Germany;
- 2002 2005: Telemedicine Systems for Consultation of Patients with Thyroid Cancer ISTC;
- 2005-2007: 'Rehabilitation of Patients Suffering from Radiation Induced Thyroid Cancer and Other Thyroid Pathologies in Stolin Region' implemented by the NGO "Arnica" and funded by the EC within the "Cooperation for Rehabilitation Programme" (CORE).

All activities within the suggested project will take into account and build upon the outcomes, partnerships and professional networks created as a result of the above initiatives. Their aim is to complement rather then duplicate the interventions already completed and/or still to be implemented both nationally and through international cooperation.

Whilst previous projects of international cooperation have been mostly focused on methodological issues related to thyroid disease, this initiative has a distinct practical character. Currently regional level endocrinological and oncological dispensaries are the only healthcare organisations in Belarus dealing with thyroid disease, but they have neither adequate technical nor well-trained human resources. There is either no leading body able to provide state-of-the-art medical services to thyroid patients and to act as a resource point of modern diagnostics and treatment methods for the country's endocrinological professionals. Therefore, the project aims to create a basis for such a body and to serve as a comprehensive model for coordination of all thyroid-related activities at the national level combining scientific research with practical application of its results.

Thus, the project's team will coordinate geographical coverage of thyroid screening activities with other organisations involved in similar activities to eliminate overlaps. It will take over dynamic observation and monitoring of part of a cohort of patients covered by the currently closing Belarusian-American project (de-

scribed above). The project will allow continuing development and enhancement of a comprehensive software tool on thyroid disease designed by the country's leading endocrinologists in cooperation with the Institute of Informatics under the National Academy of Sciences of Belarus to be used for teleconsultations and to bring together all sorts of information relevant to radiation induced thyroid diseases in Belarus, including medical records of screened, treated and monitored patients, databank of biological materials, results of various research, etc. Area-specific programmes to eliminate iodine deficiency will be developed to complement respective interventions by UNICEF.