

The role of the parliament in science and technology policy for sustainable development in Islamic Republic of Iran. By Dr H.Saadat (Member of parliament)

The world in the 21st century is defined as a world full of competitions, expansion of markets, immerge and development of high technology and globalization of business. Therefore, the prerequisite of success in this scene would be use of occasions and confrontation with the existing challenges. In order to realize the above, it is required that the process of economic and social development, with respect of the management of recognition of new international situation and recognition of the changes of integration and procedure of international and regional economic and social relations and also in view of comprehension of the most important problems and bottlenecks of national economy, the way of execution of technological structural revolutions shall pave the way to sustainable development of the Country' economy.

Supply, inscription and approval of the Law of the 4th Development Plan by the Parliament of the Islamic Republic of Iran, with respect to requirements and necessities resulted from determined goals in the Constitution of the Islamic Republic of Iran, the international transformations of the world new economic atmosphere as well as the social and economic requirements of the Country at the present stage, such as investment-production-occupation and in the long-term on the basis of a powerful and developing economy with the aim of realization of bulk exportation instead of export of raw material and goods, specially crude oil, which should necessarily be based on a logical orientation towards the forthcoming changes and outlining the future long-term vision.

Passing through the transition period out of the present situation and achievement of an optimal situation in a long-term vision necessitate revolutions in structures-foundations as well as regulation of movements in a desirable manner and in a manner being in a situation to supply the bases for establishment of an internal and sustainable development and on basis of profound changes on technological and economic general directions based on necessary qualifications. For realization of this idea, the Country should access to practical guidelines, which is nominated as a provision of the Country's long-term vision.

The vision is based on value of pre-estimations stipulating on desirable cultural, social, economic and environmental situation of the community while considering its realities. Acceptance of such a national vision is deemed to be the premier step towards success on planning. This vision outlines an image of desirable and optimal future.

Considering the Country's present cultural, social and economic situation demonstrates that the Islamic Republic of Iran possesses noticeable peculiarities:

- Holding of a rich civilization and culture along with the unity of different communities and nations, integrated territory and long historical precedence have played a considerable role in rendering profound and extension of cultural, scientific and ideological heritage. Holding of exceptional and superior geographical, geo-economic and geo-strategic situation as well as the underlined ones:
- Holding valuable natural, cultural and historical heritage
- Holding extensive technological, searching, social and humanity values
- Holding special human initiatives and talents such as intelligent educated young population and qualified advantageous forces inside and outside the Country.
- Holding political independence and experience of Islamic Revolution.
- Utilization of regional diversity, territorial extended surface and different kinds of animals and vegetables as well as extensive cultural sources being highly influential for developing the Country.
- Holding structural and non-structural extended infrastructures such as physical infrastructures (transport networks) and administrative, legal, legislative and social structures.
- Holding semi-century experience within industrial activities and accumulation of valuable physical capital.
- Holding new educational, researching and scientific abilities
- Holding semi-century experience on the Country's development planning

With respect to utilization of the Country's excessive potentials, the Country faces at present with numerous difficulties and bottlenecks as per the following:

- Continuous immigration of a part of qualified forces and reduction of the Country's scientific qualifications.
- An approximate of 2.5 millions of unemployed people as well as the unequal structure of the market occupation.
- Territorial dryness and limited water sources
- Large dependence of the Country's budget to the profits resulting from oil exportation.
- Unequal distribution of population, concentration and its polar structure.
- Inequality between rural and city communities
- Rudeness in political, social and cultural relations.
- Business traditional economic structure based on natural and not utilizable sources.
- Lowness of investment proportionate to production and based on internal markets
- Introvert economy – inflexible structure of markets – negligence and non-application of numerous existing advantages.

From point of view of economic integration of the Country in the Region and the world, the rendered studies show that within the two decades of 1980 and 1990, a number of developing countries which possessed similar economic situation and in some cases lower than Iran at the end of the decade 1970, have gradually liberated themselves by acquiring logical orientations and reasonable directions in terms of the growth of gross internal product and process of industrialization and keep close to advanced industrialized countries. Investigation of the Country's social and economic actual situation, from one part, and the Country's economic integration in the world and Region, from other part, represents that the economy and community of Iran shall be confronted with two considerable struggles in the forthcoming years. From one part, the procedure of Iran's economic growth has to be organized in a manner to be able to respond to the extensive dimensions and qualitative and quantitative requirements of occupational increase in the next years such as growth of population, increase of women's participation in labor market and consequently increase of representation of labor force and also increase of unemployment resulted from application growth of labor force in a transit economy. From other part, the growth speed has to be proportionate to theoretical and practical potentials in such a manner to bring about vitalization and promotion of the Country's international and regional situation and integration as well as realization of alteration of Iran into regional superior economic force. In long-term vision (20 years) the Islamic Republic of Iran shall be, in the year 2025, a country possessing an advanced know-how, being able in technological and practical production, based on higher part of human and social assessment sources in national production.

In 20-years vision, Iran is a country availing to the first scientific, technological and economic situation. In the region of south-west Asia (including Middle-Asia, Ghafghas, Middle Orient and neighbor countries) by underlying software advancement and scientific successes, continuous and speedy economic growth, relative increase of pro-person income and keeping complete occupation. On basis of the same vision in preparation, inscription and approval of development plans and annual budgets, macro-quantitative indexes such as investment rate, pro-person income, gross national turnover, inflation and occupation rates, decrease of income margin between superior and inferior groups of the community, cultural promotion, education, investigation and security and defense qualifications conforming with development and requirements policies of the vision, should be regulated and determined, and these policies and goals have to be respected completely. Reaching the desired goals of long-term vision - although it is a difficult and complicated procedure, but in view of the most important necessities for glorifying the Country's economy in this stage and keeping stability and security and promotion of Iran's integration in the world and region - is unavoidable. In addition, the experience of other countries paving the same way demonstrates that reaching the desired goals integrated in this vision shall be reachable with respect of management, struggle and national integrity. Naturally, attainment of determined directions and according key policies shall be precondition to reach the desired goals.

Acceptable and determined factors in territories and elements such as stable and continuous growth, development based on qualification, active cooperation with the world economy, economic competitiveness, human security and social equality, national security, judicial development and regional equilibrium of the Country on basis of territorial test factors shall be the principal pre-requisite in order to realize the desired goals.

- Fundamental elements in the 20-years vision are in reality the progressing struggles of the Country, and we do not consider these in a reasonable manner converting to substantial menaces in all political, cultural, social and economic domains.

- These elements are:

1. Sustainable development
2. Development based on know-how

3. Active cooperation with world economy
4. Economic competitiveness
5. Human security and social equality
6. National security
7. Promotion of living standard
8. Environment and steady advancement
9. Cultural extension
10. Renewal of the Government and increase of authority application
11. Judicial security and expansion
12. Regional equilibrium and balance of the Country on basis of territorial test factors.

The Law of the 4th Plan of Cultural, Social and Economic Development of Islamic Republic of Iran, being considered as the most important of realization stage of desired community of the vision of the Country's development, follows consolidation of growth foundations and bases that shall bring about possibilities of better management of Iran's future as well as regulations required for realization of new bases for Iran's development. This Plan is based on long-term vision and general policies approved by the Supreme Leader, provided and inscribed within general requirements of vision.

Document of the 4th Development Plan with four general aims:

1. Expansion of the base know-how, equality and cooperation with the world.
2. Secure of national security and all-round prevention.
3. Preservation of Islamic and religious identity and culture.
4. Effective authority and foundation of Government are to be inscribed.

One of the aims and guidelines of the 4th Development Plan is the development based on know-how.

Economic development based on science and technology through:

- Activating know-how market by establishment of registration procedure of ideological ownership and facilitate economic interests transformation of technological applications.
- More support to private sector in researching and technological activities.
- Development of rural technologies (in small and great scale)
- Increase of excessive portion of technological and research activities in internal gross production
- Promotion of science production index and technological availability index in world classification through:
- Classification of missions and national labor division of active organizations of technological section and research and estimation of activities of organizations on basis of the world recognized indexes.
- Renewal of structures and management methods in technological and research section (networks and scientific supervision bases).
- Decrease of difference between technologies used in the Country and present technologies of the world.

Expansion of technologies of local national information intended for infrastructure of digital economy by realization of local national information infrastructures for business-making of results of researches (development of structures of technological domain including risking financial foundations, technological expansion enterprises, parks and centers of technological and scientific growth of researching universities).

Removing of excessive provisions in order to facilitate technological and researching activities:

- Realization of service diversity, facilitate and acceleration of availability to required and safe communications.

Realization of equal educational occasions through:

- Following the guideline (education for all) as a national guideline
- Generalization of primary and secondary education
- Diversifying of educational services by supporting of telecommunication education, educational.

Improvement of educational quality in all areas with respect of technological development through:

- Improvement of educational programs by making them up-to-date and conformity of programs with requirements of community and labor market

- Use of modern technologies with educational content and educational methods
- Substantial amendments of content and educational methods aiming at effecting the procedure of learning and teaching
- Renewed engineering of vocational and technological educational system under the whole educational system of the Country with consideration of world changes and internal requirements by application of new information and communication know-how
- Establishment of researching and competent universities in the community
- Improvement of structure and human forces quality being occupied in private sector
- Inscription and improvement of laws and provisions necessary for diversification of financial resources and self-administration of educational units
- Improvement of procedure of standards establishment and supervision of education
- Expansion of scientific relations with international prominent educational and research centers and foundations.

Revolution and improvement of administrative organizations structure by orientation to independence and centralization of educational institutes through:

- Organization of unified micro-politicization system in educational sectors
- Improvement of management and administrative method of educational institutes
- Renewed engineering of educational system of the Country with respect to global changes and internal necessities
- Improvement of organizational structure and establishments of educational headquarters aimed at promotion of expertise qualification in order to decrease hindrances and shrink of establishments

Expansion of statistical production potential, promotion of statistical quality and statistical communication through:

- Utilization of information technology
- Enforcement of the Country's statistical information base
- Encouragement of private sector towards participating in production process and statistical communication and development of statistical researches

Active cooperation with world economy through:

- Taking part in international business and production chains along with promotion of technology and expansion of markets
- Propagation of culture and necessity of export expansion in educational and public communication areas

Competent organization of production and technological affairs of the Country to be joined to WTO through:

Business development services towards application of technological, human, geographical and communication and information technologies of the Country.

- Increase of portion of technological business and communication in the Country's foreign business

Expansion and development of regional and international cooperation through:

Promotion of functions of commercial and industrial free zones of the Country by orientation to exportation development, occupation, new technologies, absorption of foreign investments, expansion and promotion of scientific and cultural cooperation with other countries

Economic competitiveness through:

- Renewal of technological, management, financial and qualitative structures of economic institutes

- Active participation in production chains and international business towards technological promotion and market expansion

Promotion of technological grade and absorption of high technologies in different economic sectors through:

- Increase of competence and more effective use of present technologies, organizational and spiritual preparation for acceptance of new technologies
- Establishment and coordination of effective factors in promotion of utilization and innovation in universities and governmental economic sectors on national and international grades
- Educational promotion of all areas, specially in universities in branches of engineering sciences and also promotion of expertise through development of labor force educational system

Promotion of utilization of all production elements through:

Use of competence for designing policies, execution, supervision, production of speedy and safe information for information technologies towards promotion of application

Realization of reasonable atmosphere and bases for support and enforcement of national competitiveness through:

- Realization and expansion of modern infrastructures such as expansion of relationships, communication and informative foundations and etc., underlining the requirements of relative and competitiveness advantages of the Country

Human security and social equality through:

- Education and promotion of human expertise and equality of availability to information, financial and spiritual capitals.

Decrease of inequalities and sexual discrimination through:

- Promotion of technological and vocational education in order to increase women's abilities
- Support and expansion of women's professional courses
- Support and enforcement of non-governmental foundations defending rights of women
- Sexual equality on labor market
- Potential-making on service sector aimed at occupation of female students
- Application of promotional policies towards representation and support of female scientists
- Support of researching centers in women's establishments
- Promotion of women's expertise in respect of availability on technological expertise of vocational and applicable training
- Supply of intensive schools for rural girls-students and undertaking of their going-and-returning charges
- Promotion of general information potential of women and girls on juridical domains by giving educational training

Requirements concerning qualitative and quantitative aims of the 4th Development Plan in development sector based on know-how:

- 1 – Stability of technological and research central role and establishment of ideological ownership rights system towards stable development and activation of know-how market
- 2 – Promotion of Iran's situation in view of scientific production index and technological development in world's classification
- 3 – Increase of technological and research portion in promotion of application index and competition ability in international scene

- 4 – Reasonable use of science, technology and local and national information in confrontation with menaces and utilization of future occasions
 - 5 – Equalizing of educational possibilities and improvement of educational quality in all educational courses
 - 6 – Expansion of statistical production potential, promotion of communication and statistical quality
- Therefore, the Law of the 4th Plan of economic, social, and cultural development of the Islamic Republic of Iran (2005 – 2009) with the mission of (know-how based steady economic growth) on the basis of 20-year vision, the principal axes and general politics, general goals, goals and guidelines and necessities stipulated, were approved by the Council Board of the Islamic Republic of Iran.

This Law has 6 sections, 15 chapters and 161 articles as follows:

Section 1: Know-how based national economic growth in cooperation with global economy

Chapter 1: Taking preparation measurements for rapid economic growth
Articles 1-32

Chapter 2: Active cooperation with global economy
Articles 33-36

Chapter 3: Economic competition
Articles 37-42

Chapter 4: Know-how based development
Articles 43-57

Section 2: Maintenance of environment, preparation of territory and regional equilibrium

Chapter 5: Maintenance of environment
Articles 58-71

Chapter 6: Preparation of territory and regional equilibrium
Articles 72-83

Section 3: Promotion of health, human security and social equity

Chapter 7: Promotion of health and improvement of living standard

Chapter 8: Promotion of human security and social equity
Articles 95-103

Section 4: Protection of Islamic-Iranian identity and culture

Chapter 9: Cultural promotion
Articles 104-118

Section 5: Guarantee of national security

Chapter 10: National security
Articles 119-129

Chapter 11: Jurisdiction promotion
Articles 130-134

Section 6: Renewal of Government and promotion of sufficiency of the authority

Chapter 12: Renewal of Government and promotion of sufficiency of the authority
Articles 135-154

Chapter 13: Improvement of executive works of the Plan
Article 155

Chapter 14: Regulating of the “Regulation Law” of part of financial provisions of Government, Article 156

Chapter 15: Supervision
Articles 157-161

As seen, the technological and research sector, by promotion of innovation national system and making possible of maximum use of occasions and rural resources (human, physical and social resources) from other part, plays a central role in realization of all 12 contents of the 4th Development Plan.

As example we indicate some aspects of the 4th Plan in respect of research and technology

4th Chapter:

Economy based on know-how

Article 43: Increase of technological and know-how role in realization of excessive value in modern economy

- Increase of potential of technological and research sector towards cultural and social requirements
- Increase of potential of technological and research sector regarding application in world competition atmosphere
- Supply of comprehensive plan for scientific and technological development of the Country
- Max. utilization of regional and national potentials towards promotion of environmental, space and nuclear information technology
- Qualitative and professional development of research of human and cultural sciences (realization of ideological qualification on world scene) and response to decision-making requirements of executive organizations of the Country

Article 44: Establishment of information community and secure of safe and cheap access to information:

- Protection of investment of private and cooperative sector towards production and representation of information in Persian language and by computer
- Keeping a reasonable portion from information and international and regional communication market through expansion of national Internet information centers and communicative infrastructures based on resources of cooperative and private sector and attraction of international participation
- Preparation and approval of guideline document, establishment of security of production and information transfer in computer centers

Article 45:

Expansion of market of know-how and scientific productions and commercialization of research and initiative utilization along with expansion of cooperative and private sector

- Design and establishment of complete system of spiritual ownership rights
- Secure and payment of a part of scientific patent registration expenditures on international domain and purchase of internal registered scientific licenses by producers
- Insurance of research agreements and producing activities of users of research findings
- Support ordered research (holder of applicants) by securing 40% by employer (Article 102)
- Expansion of parks and centers of technological and scientific growth
- Realization of legal facilities required for research and technological activities of cooperative and private sector for investigation and development resulting in initiation, invention, promotion of products and methods
- Help to establishment and expansion of non-governmental cash-desks of research and technology
- Foresee and taking necessary measures for value-estimation and know-how based inexplicit products transfer
- Help to establishment and promotion of engineering and design companies

Article 46:

Setting up technological and research system of the Country

- Design and putting into operation of initiative national system
- Organizing of technological and research system through:
 - Determination of priorities
 - Putting into aim credits and improvement of structure of research units in framework of missions for labor force training, expansion of scientific frontiers, change of ideas into product and new methods of know-how production, execution of semi-industrial research, transfer and absorption of technology, competitive increase of production and service sections of the Country and carrying out applicable research towards solution of problems of the Country
 - Renewal of research management methods such as establishment of technological and research networks
 - Promotion of international effective cooperation by simplifying concerning laws and regulations
 - Monotone increase of governmental investment in technological and research sector (Min. 2% of internal gross product secured by public credits and 1% by functional income of governmental enterprises

Article 47:

Promotion of science-based companies and enforcement of international cooperation

Article 48:

Necessary protections in order to establish non-governmental enterprises of technological development and engineering and service companies under mission for technological transfer and absorption

- Establishment of criterion and necessary protections for promotion of foreign partnerships of international contracts as well as foreign investment to transfer a part of research and development activities to the Country with internal partnership

Cultural ,Educational & Research Indices in the 4 th Plan of Development		
	Available situation	1388
Index of Technological Development	0.26	0.45
Index of Educational Expansion(percent)	78	84
Percentage of Credits for Research to GNP(internal)	0.87	2.5
Number of Scientists & Engineers Engaged in Research & Expansion(for per million person)	336	2000
Number of Scientific Patents Registered (per million person)	1	4
Percentage of Advanced Technological Export Goods to Total non-oil Exports	2	6
Percentage of the 6-years old literate & over it	85.5	90
Number of Titles of Published books(for per 100000 person)	33.7	54.9

And finally:

The present annual budget, being the first executive year of the 4th Plan, owns one unit article and 20 notes, the note 9 of which, in terms of know-how based promotion, financial orders and plan requirements, is applied.