

Acronyms

ASEZA	Aqaba Special Economic Zone Authority	MMRAE	Ministry of Municipalities and Rural Affairs and the Environment
BOD	Board of Directors	MOA	Ministry of Agriculture
BOT	Build Operate and Transfer	MOE	Ministry of the Environment
CDD	Civil Defense Directorate	MOF	Ministry of Finance
CMU	Contract Monitoring Unit	MOH	Ministry of Health
DLS	Department of Land and Surveys	MOT	Ministry of Tourism
FAS	Financial Accounting System	MPWH	Ministry of Public Works and Housing
FTA	Farm Turnout Assembly	MWI	Ministry of Water and Irrigation
GCEP	General Corporation for the Environment Protection	O&M	Operations and Maintenance
HRD	Human Resources Development	PIM	Participatory Irrigation Management
IAC	Irrigated Agriculture Committee	PMU	Planning and Management Unit
IAS	Irrigation Advisory Service	PMU	Project Management Unit
JGC	Jordan Geographic Center	PSP	Private Sector Participation
JISM	Jordan Institute for Standards and Metrology	RO	Reverse Osmosis
JRV	Jordan Rift Valley	RSCN	Royal society for the Conservation of Nature
JRVIP	Jordan Rift Valley Improvement Project	SOP	Standard Operating Procedures
JV	Jordan Valley	SPP	Strategic Planning Program
JVA	Jordan Valley Authority	SWOT	Strengths, Weaknesses, Opportunities and Threats
JVC	Jordan Valley Commission	TF	Taskforce
KAC	King Abdullah Canal	USAID	United States Agency for International Development
KTD	King Talal Dam	WAJ	Water Authority of Jordan
KTR	King Talal Reservoir	WB	World Bank
MCM	Million cubic meters	WG	Working Group
MIS	Management Information System	WUA	Water Users Association
MIT	Ministry of Industry and Trade		

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Map of Jordan Valley Mandate

1.1 History of the Jordan Valley Authority

The Jordan Valley area, strategically located and having abundant natural and archeological resources, has been a center of socioeconomic development in the Kingdom. Development of the Valley area in the fifties and sixties was primarily based on irrigated agriculture projects and various related development works.

In 1973 the government ratified the concept of integrated development to capitalize on available resources and increase the population in the Jordan Valley. Thus the Jordan Valley Commission (JVC) was established, which succeeded the Regional Corporation for Utilization of the Jordan River Waters and Tributaries, as well as a number of other government agencies in so far as their functions in the Valley were concerned.

In 1977 the Jordan Valley Authority (JVA) was established according to Law No. 18 of 1977, (later replaced by Law No. 19 of 1988) with the mandate to carry out integrated socioeconomic development of the Jordan Valley area - then defined as extending from the northern border of the Hashemite Kingdom of Jordan in the north to the northern tip of the Dead Sea in the south; the Jordan River to the west and all areas in the Yarmouk and Zarqa basins that lie below the 300m contour line to the east; plus any areas the Cabinet appropriates to JVA. In the same year, the area

The major amendments that were introduced to the Jordan Valley Development law in July 2001 removed integrated development from JVA's ambit and cleared the way for private sector involvement in JVA operations

was expanded by the Cabinet to include the territory lying between the northern tip of the Dead Sea in the north and the northern border of the Aqaba Municipality in the south; and from the 500m contour line to the east and the Kingdom's border to the west.

With integrated development as the crux of its mission, JVA over the last 25 years fulfilled its mandate of putting in place a modern infrastructure and catalyzing an irrigated agriculture sector. JVA completed the

reclamation and development of 360,000 dunums of land for agricultural use and divided it into farming units and appropriated them to beneficiaries in the Valley. It constructed nine dams and completed the construction of King Abdullah Canal as well as a sophisticated, pressurized, closed pipe irrigation system. Development of towns, villages, streets, parks, schools, residential and industrial areas and tourism were among the other functions successfully carried out by JVA. Throughout its existence, JVA has faithfully implemented this part of its mandate and has developed an impressive track record of achievements. Today, the Jordan Valley is home to 300,000 residents, an indicator of the successful realization of JVA's mission.

Having completed the initial integrated development work in the Valley, and with the assumption of functions in the Valley by other governmental organizations, such as the Ministry of Education, Ministry of Health, Ministry of Public Works and the Ministry of Municipalities, Rural Affairs and the Environment, JVA's role in socioeconomic development was scaled back.

In the wake of these changes, JVA's responsibilities became focused on bulk and retail water management and distribution, as well as land development and management. Capitalizing on the Authority's capabilities, the unique tourism value of the Dead Sea area, and the rise in the number of tourists following the 1994 Peace Treaty, JVA expanded its activities in tourism development in the Valley, recognizing the potential financial returns this sector could realize for the Kingdom. JVA achieved marked accomplishments in developing tourism in the Jordan Valley through infrastructure development and attracting investors. The Dead Sea area prospered as a result, and JVA further complemented its efforts by developing the Baptism Site. JVA's revenue from tourism development represented 38% of its total revenue in 2001.

Having relinquished many integrated development functions over the past decade, an amendment to

JVA's mandate was needed. In July 2001, Law No. 30 (Jordan Valley Development Law) was enacted to more accurately reflect the transformation in JVA's role.

The major amendments that were introduced diminished JVA's role in integrated development, opened the way for private sector participation in JVA's activities, allowed JVA to operate all but its bulk water system on a commercial basis, and eased constraints on farm ownership and allowed their sale.

Under the new mandate, JVA is entrusted primarily with water resources development and management, water distribution, land reclamation and development, tourism development and environmental improvement and protection.

The Jordan Valley possesses the resources to make JVA a revenue source, rather than a cost to the Treasury

Background for Change

When the JVA was founded in 1977 it was given the responsibility of comprehensively developing the Jordan Valley to attract and sustain a larger population. JVA accomplished this task successfully, increasing the Valley's population from 70,000 to the current 300,000, while at the same time creating a modern agricultural sector, and building and managing Jordan's bulk water infrastructure. JVA built schools, health centers, roads, government buildings and power grids. It also carried out tasks not mandated to it on behalf of other organizations.

Other government agencies are now fully developed and can cater to the needs of Jordanians in the Jordan Valley. Accordingly, JVA's role as an integrated developer is giving way to a new equally challenging role.

There is now a need to develop sources of revenue for the Treasury and job opportunities for the people. JVA

possesses a wealth of archeological and natural resources that must be utilized to the full, while safeguarding their sustainability, to attract investment, create employment and make JVA a revenue source, rather than a cost to the Treasury.

The Government with its new thinking on how its institutions are to be operated dictates that cost effectiveness, efficiency and responsiveness to the public's needs are of prime importance. Involving the private sector in traditionally government functions is one approach championed by the Government to achieve its vision for the future of its operations. In the Jordan Valley, the private sector can be involved in a number of ways that will help align JVA with the Government's new way of thinking. This will ease the burden on public funds and provide the public with the quality of service they need.

The 2001 amendment to Law No. 30 gave JVA the legal latitude to make some of the necessary changes mentioned above. What remained were the functional means to achieve its new aspirations, and so the Strategic Planning Program (SPP) was initiated. The SPP provided technical assistance to JVA to help produce a five-year strategic plan reflecting the needs of stakeholders, the Government's new philosophy regarding private sector participation and defines JVA's new role.

The need has emerged for JVA to rationalize its activities in light of the revised mandate brought about in July 2001.

Repositioning JVA

The need has emerged for JVA to rationalize its activities in light of the revised mandate brought about in July 2001. This will effectively mean the downsizing of its role in a number of areas, and will require considerable introspection to bring its institutional framework in-line with its new mandate.

The Way Forward

- JVA's new approach includes adopting corporate practices in all its functions. Moreover, the amended Law allows JVA to operate where possible on a commercial basis excluding irrigation projects. This new remit represents a fundamental shift in institutional philosophy and mind set.
- Repositioning JVA means that it will shift away from its original role as an integrated development agency in the Jordan Valley, as other governmental institutions have collectively assumed this role.
- In light of the changes that have taken place in the water sector and to the organizations that operate in it, it is expected that there will no longer be a regulatory role for JVA in water activities. Its role will be limited to the management and distribution of water for different uses. However, JVA will maintain a regulatory responsibility for land in the Valley to ensure compliance with the Master Plan and to update it.
- JVA's role in land development and investment promotion will be expanded. The Jordan Valley has significant development potential with regard to land, tourism facilities, archeological sites, recreational facilities, and industry. It will need to consider the resources of the Valley from a commercial perspective.

- JVA will involve the private sector in its operations where appropriate and beneficial. This will include irrigation systems management and water distribution in addition to developing land, tourism facilities, archeological sites and industry, as well as constructing the needed infrastructure.

- JVA will implement government policies on environmental protection in the Jordan Valley and execute environmental monitoring responsibilities to ensure compliance to regulations.

All in all, a 'strategic shift' in JVA's philosophy and thinking is called for. This Strategic Plan will enable JVA to begin such a shift and to continue its transformation into a 21st century utility which draws upon the best of public sector accountability and experience, along with up to date private sector business practices, technological innovation and know-how.

The new vision and mission for JVA reflect new government policies on private sector participation and improving institutional effectiveness, and set the future direction for JVA.

The New Vision

We aim to be a prominent institution for developing the Jordan Valley and providing quality services to its residents and investors, and be an example of high efficiency among public sector institutions in Jordan.

The New Mission

The Jordan Valley Authority develops, manages, and protects water and land resources and their supporting infrastructure in the Jordan Valley in an environmentally and economically sound manner, in the Jordanian national interest, through creating partnerships with the private sector where appropriate. JVA will also implement projects stemming from regional agreements on water and development on behalf of the Jordanian government.

In devising an approach to fulfill the new mission, four goals were formulated each representing a functional area in JVA's operations.

The first goal deals with developing and managing the bulk water supply. This function, by law, must remain under the direct control of JVA, and the involvement of the private sector is limited to service contracts.

Goal Two is concerned with retail water delivery and distribution, an area where JVA's most significant losses occur. This is a prime candidate for PSP, and an improvement in cost recovery and service provision should materialize once a private contractor assumes management responsibility.

Goal Three, concerned with land development and management, is perhaps where JVA's biggest potential for financial stability lies. Within its boundaries, JVA has large areas of developable land for use in tourism and for attracting investment. It also has many sites of historic and archeological significance with immense potential, both for tourism and investment.

The last goal, Goal Four, is probably the most important one of the four. It deals with the restructuring of JVA to make it a more lean and responsive organization. It also addresses the legal changes that are needed to allow JVA to assume its new role. Only through its realization, can JVA achieve what this strategic plan aspires to do.

Strategic Plan 2003 - 2008

Vision

We aim to be a prominent institution for developing the Jordan Valley and providing quality services to its residents and investors, and be an example of high efficiency among public sector institutions in Jordan.

Goal One: Water Resources Development and Management

Meet the needs of current and future water users by managing, developing, protecting and sustaining both existing and new water resources, and to do this in a way which takes into account both economic and environmental considerations, and involves the private sector where appropriate.

Goal Two: Water Supply and Distribution

Manage JVA's existing water delivery and distribution infrastructure, systems and facilities in an efficient, transparent and equitable manner, and involve the private sector where appropriate.

Objective 1

To increase the availability of water to JVA customers through efficiency improvements as well as project planning and implementation.

Strategies

- 1 Rehabilitate existing water resource infrastructure (storage dams, diversion weirs and side wadis).
- 2 Design and implement corrective and preventative maintenance programs for all water resources and their supporting infrastructure.
- 3 Increase the water available to customers by developing existing water resources and constructing new ones.
- 4 Monitor and implement regional water agreements and protocols.

Objective 2

To increase the use of marginal water in irrigation and other purposes.

Strategies

- 1 Develop guidelines for the use of marginal water by cooperating with concerned agencies.
- 2 Identify non-agricultural customers for marginal water.
- 3 Develop new sources of brackish water.

Objective 3

To utilize water resources for additional benefits.

Strategies

- 1 Develop fish and wildlife habitats.
- 2 Develop recreational facilities for the public.

Objective 4

To improve the quality of water resources and ensure the sustainability of their use.

Strategies

- 1 Cooperate with WAJ to improve the quality of treated wastewater that flows to the Jordan Valley.
- 2 Make effective use of existing laws to curb pollution of water resources by industry.
- 3 Implement projects for recharging aquifers by using surplus flood water and treated wastewater.
- 4 Control pumping from wells to avoid groundwater aquifer salinization.

Objective 1

To improve the overall efficiency of retail water delivery systems and infrastructure and ensure they are sustainably managed and operated.

Strategies

- 1 Develop and rehabilitate irrigation networks and infrastructure.
- 2 Protect water quality in the distribution systems.
- 3 Determine accurately, the quantities of water delivered to farms and the quantities of water released to the irrigation networks.
- 4 Develop and implement proactive plans for risk and crisis management.

Objective 2

To increase the involvement of the private sector in irrigation water management operations.

Strategies

- 1 Implement a management contract for irrigation water management and distribution.
- 2 Involve farmers in the management of irrigation water distribution systems.

Objective 3

To reduce irrigation water demand and optimize the use of available water.

Strategies

- 1 Establish a mechanism to periodically and consistently communicate information on water availability and quality to farmers.
- 2 Collaborate with other institutions to bring modern irrigation technologies to farmers.
- 3 Provide training on the use of modern irrigation systems.
- 4 Restructure water tariff system such that price to farmers is sensitive to quantity and quality.

Mission

The Jordan Valley Authority develops, manages, and protects water and land resources and their supporting infrastructure in the Jordan Valley in an environmentally and economically sound manner, in the Jordanian national interest, through creating partnerships with the private sector where appropriate. JVA will also implement projects stemming from regional agreements on water and development on behalf of the Jordanian government.

Goal Three: Land Development and Management

Develop, manage, regulate and protect land and related resources in the Jordan Valley in order to maximize their economic usefulness while taking into account environmental considerations, and involve the private sector where appropriate.

Goal Four: Organizational Performance Improvement and Development

To Develop and reorganize JVA to enable it to better achieve its new mission and improve its performance and effectiveness in providing quality service to its stakeholders.

Objective 1

Develop a comprehensive land use plan.

Strategies

- 1 Prepare a Land Use Master Plan for all land in the Valley.

Objective 2

To increase investment by the private sector in developing land in the Jordan Valley.

Strategies

- 1 Develop specific tourism and industrial projects and involve the private sector in their management.
- 2 Develop infrastructure to encourage private sector development.
- 3 Market the Jordan Valley as an investment hub for tourism, industrial and commercial development in accordance with the Master Plan.
- 4 Streamline investment procedures for the private sector.

Objective 3

Regulate and manage land in the Jordan Valley.

Strategies

- 1 Complete distribution and registration procedures for agricultural and housing land.
- 2 Ensure adherence to the Master Plan for all development to prevent encroachment and change of use.
- 3 Return land not allocated for use by JVA to the responsibility of the Department of Land and Survey.

Objective 4

Protect and ensure the sustainable use of natural resources in the Jordan Valley

Strategies

- 1 Protect the environment in the Jordan Valley.
- 2 Protect the Dead Sea.

Objective 1

To enable JVA to carry out its new mission by developing a new legal framework.

Strategies

- 1 Draft and ratify a new law that supports the new Strategic Plan.

Objective 2

To enable JVA to carry out its new mission by developing a new institutional framework.

Strategies

- 1 Restructure the organization to reflect the new mission to be carried out.
- 2 Implement and institutionalize the strategic planning process.

Objective 3

To improve JVA's efficiency and effectiveness by adopting modern technical, managerial and financial methods and systems.

Strategies

- 1 Streamline administrative procedures to reduce bureaucracy.
- 2 Train existing managers on the use and utilization of MIS.
- 3 Create and sustain a customer-service mentality where relevant.
- 4 Adopt private sector practices in management, finance and control.
- 5 Formulate plans to safeguard databases and archive information.
- 6 Enhance the communication and data infrastructure to ensure timely access to data.

Objective 4

To improve JVA's human resources management practices to enhance staff efficiency and performance and increase job satisfaction.

Strategies

- 1 Implement staff training and development programs.
- 2 Develop job descriptions including performance indicators.
- 3 Implement objective recruitment policies that match qualifications to job descriptions.
- 4 Develop a succession plan, especially for high-level jobs.

Goal 1: Water Resources Development and Management



Goal One: Water Resources Development and Management.

Meet the needs of current and future water users by managing, developing, protecting and sustaining both existing and new water resources, and to do this in a way which takes into account both economic and environmental considerations, and involves the private sector where appropriate.

One of the prime functions of JVA will remain the securing of bulk water supplies for use in the Jordan Valley and elsewhere in the Kingdom. It seems certain that in the future, more of the Jordan Valley catchment water will be diverted for urban and municipal use.

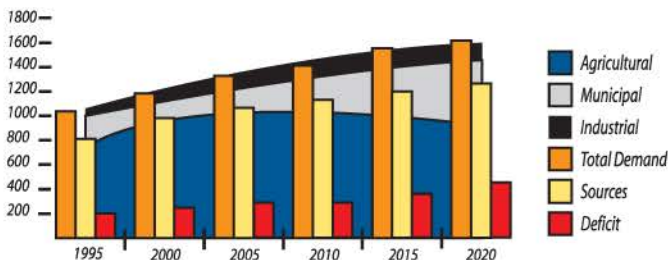
Meanwhile, water demand in the Valley continues to increase, and JVA will be under increasing pressure to meet those needs. Although most of JVA's water is currently used for irrigation, future uses of JVA water will include agriculture, tourism activities, industry, as well as municipal use. The chart below shows water use and available water by sector and type between 1995 and 2020.

JVA must therefore work to increase the efficiency and reliability of the existing collection and storage infrastructure, as well as attempting to develop new water sources.

Achieving this goal will involve both the rehabilitation and maintenance of the existing bulk water facilities, which JVA has developed over the years.

As well as the search for new sources of water, both surface and ground, there are significant sources of non-traditional water (brackish water and treated wastewater) in the Valley, which if utilized appropriately, could be used for certain types of agriculture and industry.

There is the potential to develop some of the storage reservoirs as nature reserves or recreational facilities, perhaps in conjunction with the private sector. This maybe a possible source of extra revenue for the Authority.



Water use and available water
1995-2020 in MCM

Goal One: Water Resources Development and Management

Meet the needs of current and future water users by managing, developing, protecting and sustaining both existing and new water resources, and to do this in a way which takes into account both economic and environmental considerations, and involves the private sector where appropriate.

Objective 1

To increase the availability of water to JVA customers through efficiency improvements as well as project planning and implementation.

Strategies:

1. Rehabilitate existing water resource infrastructure (storage dams, diversion weirs and side wadis).
2. Design and implement corrective and preventative maintenance programs for all water resources and their supporting infrastructure.
3. Increase the water available to customers by developing existing water resources and constructing new ones.
4. Monitor and implement regional water agreements and protocols.

Objective 2

To increase the use of marginal water in irrigation and other purposes.

Strategies:

1. Develop guidelines for the use of marginal water by cooperating with concerned agencies.
2. Identify non-agricultural customers for marginal water.
3. Develop new sources of brackish water.

Objective 3

To utilize water resources for additional benefits.

Strategies:

1. Develop fish and wildlife habitat.
2. Develop recreational facilities for the public.

Objective 4

To improve the quality of water in water resources and ensure the sustainability of their use.

Strategies:

1. Cooperate with WAJ to improve the quality of received treated water.
2. Make effective use of existing laws to curb pollution of water resources by industry.
3. Implement projects for recharging aquifers by using surplus flood water and treated wastewater.
4. Control pumping from wells to avoid groundwater aquifer salinization.

Objective 1

To increase the availability of water to JVA customers through efficiency improvements as well as project planning and implementation.

The untapped fresh water resource available to JVA is limited. It is therefore imperative that existing surface water collection and storage systems operate as efficiently as possible. JVA's storage infrastructure is in need of continuing rehabilitation and maintenance to ensure that water is collected and stored efficiently. JVA will plan and budget for prioritized rehabilitation of its infrastructure.

Four strategies have been identified under this objective:

- 1. Rehabilitate existing water resource infrastructure (storage dams, diversion weirs and side wadis).**

A rehabilitation plan will be drawn up, prioritized and costed, which will result in the increased performance of all the major dams and reservoirs. This will lead to lower operating costs, reduced losses and hence increased water availability.

- 2. Design and implement corrective and preventative maintenance programs for all water resources and their supporting infrastructure.**

A preventative maintenance program will be developed and applied for all JVA facilities to preempt failures. Accurate maintenance records will be kept and use of manufacturers' recommendations will be made, where possible. Additionally, regular inspection and reporting on the condition of the water resources infrastructure is to be carried out. Implementing this regimen will decrease downtime, reduce operating costs and increase efficiency.

Goal 1: Water Resources Development and Management

3. Increase the water available to customers by developing existing water resources and constructing new ones.

Opportunities exist to increase water availability to customers without developing new water resources. It may be possible to develop some of the existing collection and storage facilities, for example by creating additional storage at some dams, pumping from rivers during flood flows, or taking measures to increase the water supply to certain storage facilities.

Hitherto untapped freshwater resources will be looked for (e.g. construction of side wadi dams), and investigations made as to the feasibility of developing these into additional supplies for JVA, taking into account the sustainability of the resources. There are also groundwater resources in the Valley that can be developed to make more water available.

4. Monitor and implement regional water agreements and protocols.

JVA will act as implementer, for the Jordanian side, of water related projects in the Valley that result from treaties with neighboring countries. Those agreements particularly affecting JVA include the Peace Treaty with Israel, aspects of which involve the use and development of the shared water resources of the Valley and its catchments, and various agreements with Syria over abstraction from the Yarmouk River. In all its activities, JVA must take care to adhere to the terms of such agreements, and act on agreed plans where circumstances allow.

Performance Indicators:

1. Operation and maintenance costs for bulk water resources.
2. Number of reported failures.
3. Quantity of water available in storage dams.
4. Quantity of water made available through regional cooperation.



Objective 2

To increase the use of marginal water in irrigation and other purposes.

With fresh water resources being reallocated from the Valley to urban areas, the issue of the use of marginal waters (treated wastewater and brackish water) for irrigation grows in significance. Studies have predicted that the quantity of treated wastewater received by JVA will rise from the current 70 MCM/year to more than 200 MCM/year in the year 2015, which means that 75% of the water supplies in the Jordan Valley will necessarily come from treated wastewater. The Valley also has significant quantities of brackish surface and ground water which could be effectively used for irrigating certain crops with little or no treatment. Use of brackish water in the Valley has risen in the last few years following the installation of desalination systems by some farmers for irrigation.

However, there are important quality issues to be addressed. A shift in water quality will continue to cause difficulties for some farmers. Cropping patterns, on-farm irrigation technologies, and markets that were established when fresh water was supplied by JVA will all be affected. Guidelines will therefore be developed regarding the use of such waters in the Valley. Clear and accurate information regarding water quality will be disseminated to users to enable them to make decisions about the choice of crops and how to better manage them.

JVA will study the feasibility of implementing a revised tariff system that varies water prices based on quality. This would give incentive to or compensate farmers for using lower quality water.

In addition, some non-agricultural users may be encouraged to use marginal water instead of fresh water. This would reduce demand for fresh water availing it for irrigation and municipal use. There are also studies currently underway to investigate the use of untreated brackish water for irrigating salt tolerant crops. This research will continue until a viable methodology is developed for such use.

Three strategies have been identified under this objective:

1. Develop guidelines for the use of marginal water by cooperating with concerned agencies.

Jordan has a standard (JS893/2002) governing the use of treated wastewater for irrigation. However, it seems that much of the treated wastewater supplied to the JVA is of sub-standard quality in terms of its salinity.

JVA will approach WAJ to cooperate towards ensuring that treated wastewater received by JVA conforms to the prescribed standard. There is also ongoing work to develop methods and guidelines for brackish water use in irrigation. This information will be made available to farmers.

The use of desalination to make use of brackish water is a potential area for involving the private sector the feasibility of which will be studied.

2. Identify non-agricultural customers for marginal water.

If industrial activities are encouraged to develop in the Valley, it may be that some of the lower quality marginal water would be suitable for their use. JVA will seek out and identify such potential uses, and investigate the suitability and cost effectiveness of the use of such water. This would reduce the demand for fresh water.

3. Develop new sources of brackish water.

Within the Valley, there are numerous surface and ground water sources of varying quality, which could effectively be used for irrigating certain crops. New sources of such water will be investigated and costs placed against their development and treatment.

Performance Indicators:

1. Quantity of marginal water used in irrigation.
2. A registry of marginal water users is compiled.
3. A guide for marginal water use is issued.

Goal 1: Water Resources Development and Management



Objective 3

To utilize water resources for additional benefits.

Large bodies of surface water such as lakes and rivers are not abundant in Jordan. JVA will investigate the feasibility of using the water structures in the Valley for secondary purposes in addition to, and without detrimentally affecting their primary role as water stores. For example the development of fish and wildlife habitats, tourism facilities and public recreation sites will be considered.

Two strategies have been identified under this objective:

1. Develop fish and wildlife habitats.

The use of some of JVA's reservoirs as natural reserves or wildlife habitats has many potential advantages. It will attract both local and foreign tourists to the Valley area and generate additional income for local businesses. Cooperation with agencies such as RSCN and the Ministry of Agriculture and others, which have expertise in this area, will be studied.

2. Develop recreational facilities for the public.

Water recreation facilities are not common in the area so there is good commercial potential for developing such facilities on JVA reservoirs. Involvement of the private sector in such ventures will be considered as a viable approach. The benefits of such projects would be increased employment opportunities in the Valley as well as income for both local businesses and JVA.

JVA will have a role in ensuring that environmental considerations are not ignored.

Performance Indicators:

1. A list of possible/feasible projects for development of fish/wildlife and recreational facilities is developed.
2. Number of tourists using to the Valley.
3. Area of land designated as wildlife habitats.

Objective 4

To improve the quality of water resources and ensure the sustainability of their use.

The existing water resources of the Jordan Valley are under threat from pollution and depletion. The quality of groundwater resources is being compromised by the widespread use of septic tanks and the absence of a wastewater collection network. In addition, over-pumping from wells causes salinization of the aquifers. Surface water resources in the Valley are also being polluted by industrial waste amongst other (notably the Zarqa River) and inadequately treated effluent from wastewater treatment plants.

Four strategies have been identified under this objective:

1. Cooperate with WAJ to improve the quality of treated wastewater that flows to the Jordan Valley.

In this regard - and as JVA is not mandated to treat wastewater, JVA's activities would be limited to monitoring the quality of incoming treated wastewater and notifying WAJ of low quality effluent. JVA will work to establish the 'Polluter Pays Principle' for dealing with wastewater treatment plant operators (WAJ or private operators). Such a scheme would need ratification by the MWI and Cabinet.

2. Make effective use of existing laws to curb pollution of water resources by industry.

Laws are in place that empower JVA to penalize polluters. There is however some overlap in this function with GCEP and WAJ. JVA will cooperate with these organizations as well as MIT to stop industrial waste from being dumped into rivers and other water resources.

3. Implement projects for recharging aquifers by using surplus flood water and treated wastewater.

Recharging of groundwater resources using treated wastewater is being increasingly explored in Jordan and other countries. JVA will continue assessing such options while taking into account water quality issues.

A number of projects have been studied to build groundwater recharge dams and weirs. Implementation of some of these projects will be pursued, as financing allows.

4. Control pumping from wells to avoid groundwater aquifer salinization.

JVA has no mandate to control the licensing of wells in the Valley - this is the responsibility of WAJ. However, illegal and unlicensed wells are a significant problem, and will be addressed in conjunction with WAJ.

Performance Indicators:

1. Quality of groundwater extracted.
2. Quality of treated wastewater that flows to the Jordan Valley.
3. Number of completed groundwater recharge projects.

Goal 2: Water Supply and Distribution



Goal Two: Water Supply and Distribution

Manage JVA's existing water delivery and distribution infrastructure, systems and facilities in an efficient, transparent and equitable manner, and involve the private sector where appropriate.

A second key function for JVA is to manage the distribution of irrigation water to users, and to monitor and maintain its quantity and quality. JVA's principal customers include farmers, the Water Authority, Jordan Valley inhabitants, industries and investors. JVA's customers, particularly farmers, complain about the worsening water quality and water shortages at different times of the year. There is evidence of inequities in water allocation, illegal use, and leakage throughout the system.

Water distribution is based on cropping patterns and irrigated area, yet due to supply limitations, deliveries often do not match needs. Farmers have requested JVA to be more transparent in its dealings with them, to allow them to adapt to changing conditions and plan their cropping.

JVA needs to improve its distribution infrastructure – canals, piping, pumping stations, gate valves and farm turn out assemblies. JVA needs to define ways of involving the private sector, including farmers, in the distribution of irrigation water, and to encourage and develop water conservation awareness where possible.

Goal Two: Water Supply and Distribution

Manage JVA's existing water delivery and distribution infrastructure, systems and facilities in an efficient, transparent and equitable manner, and involve the private sector where appropriate.

Objective 1

To improve the overall efficiency of retail water delivery systems and infrastructure and ensure they are sustainably managed and operated

Strategies:

1. Develop and rehabilitate irrigation networks and infrastructure.
2. Protect water quality in the distribution systems.
3. Determine accurately, the quantities of water released to irrigation networks.
4. Develop and implement proactive plans for risk and crisis management.

Objective 2

To increase the involvement of the private sector in irrigation water management and distribution.

Strategies:

1. Implement a management contract for irrigation water management and distribution.
2. Involve farmers in the management of irrigation water distribution systems.

Objective 3

To reduce irrigation water demand and optimize the use of available water at the user level.

Strategies:

1. Establish a mechanism to periodically and consistently communicate information on water availability and quality to farmers.
2. Collaborate with other institutions to bring modern irrigation technologies to farmers.
3. Provide training on the use of modern irrigation systems.
4. Restructure water tariff mechanism such that price to farmers is sensitive to quantity and quality.

Objective 1

To improve the overall efficiency of retail water delivery systems and infrastructure and ensure they are sustainably managed and operated.

There is a need to raise the efficiency of irrigation networks in some of the projects through rehabilitation and upgrading. Chronic Water metering problems need to be resolved in order to provide an accurate picture of the performance of the network, and enable the detection of leaks, and illegal water use.

Transparency and fairness in distribution is also of importance – the perceived lack of these is the source of many customer complaints. In addition, the quality of the water in the distribution system is variable and affects crop yield and marketability.

Significant improvements in water distribution are required.

Four strategies have been identified under this objective:

1. Develop and rehabilitate irrigation networks and infrastructure.

Many of JVA's water distribution networks are old and in need of maintenance. It is estimated that between 20-35% of bulk water delivered to the distribution system is unaccounted for – much of this is due to leakage and illegitimate use. Targets for performance improvements will be set over the next 5 years, to be realized by repairing and upgrading the network and implementing measures to curb water theft. Current levels of water loss will be determined by comparing the volume of water released into the irrigation networks with the volume of water actually billed.

2. Protect water quality in the distribution systems.

Although the quality of some of the water delivered to JVA is outside its control (in particular water from the KTR), JVA will coordinate with MWI and WAJ to improve and protect water quality.

3. Determine accurately, the quantities of water delivered to farms and the quantities of water released to the irrigation networks.

Unaccounted for water in the irrigation networks is considerable. This situation will be remedied in order to determine accurately the level of unaccounted-for water how much water is lost and where. A legal and operational mechanism will be implemented to protect the new meters from tampering and to minimize technical failures.

4. Develop and implement proactive plans for risk management.

There are a number of risks that JVA has to contend with. Drought conditions in Jordan are frequent and often prolonged, resulting in disruption to and unpredictability in water supplies. JVA's response to these droughts has been reactive rather than proactive, often requiring reduction in supply to customers as well as inequitable distribution of water to customers.

Another risk is that of floods. Despite the drought conditions that persist, wadis are susceptible to periodic flood flows, which cause damage to in-wadi structures and pose a risk to the public and JVA personnel.

The threat of fire in JVA facilities is another risk that must be dealt with – as in any other facility. To ensure continuity of operation of the irrigation networks, JVA facilities will be rendered fire safe by complying with recognized fire codes and using the assistance of the Civil Defense Directorate. Yet another problem facing JVA is that of vandalism and tampering often associated with water theft. Security measures will be implemented to curb this problem.

Performance Indicators:

1. Water quality analyses results in irrigation networks.
2. Quantity of water delivered to farms.
3. Risk and crisis management plans are in place.

Goal 2: Water Supply and Distribution



Work on a Farm Turnout Assembly (FTA)

Objective 2

To increase the involvement of the private sector in irrigation water management operations.

In order to improve efficiency, reduce costs, and improve customer satisfaction, water utilities worldwide have begun to transfer or share responsibilities with the private sector in a number of ways. One of the challenges facing JVA is the selection of the right approach to involve the private sector in its operations.

JVA's amended Law places heavy emphasis on involvement of the private sector, allowing the lease, management or operation of assets by private enterprise.

JVA conducted a private sector participation study to evaluate which options are most suitable from a legal and functional perspective. The study concluded that a management contract is the most feasible option.

Two strategies have been identified under this objective:

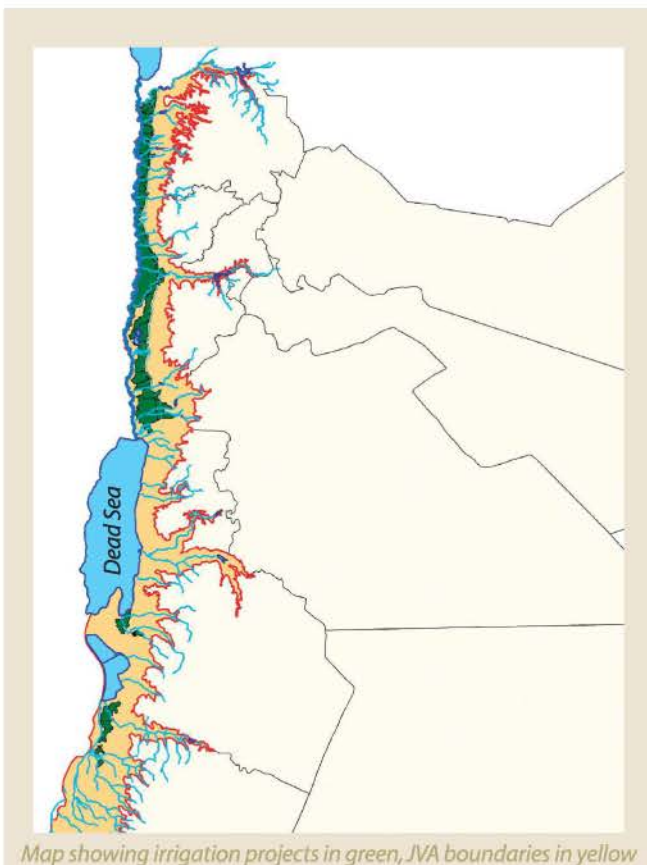
1. Implement a management contract for irrigation water management and distribution.

JVA will involve the private sector in the distribution and management of irrigation water through a management contract.

Implementing a management contract involves several steps, some of which are the drafting of a contract, establishing a contract supervision function in JVA and preparing the irrigation networks (and all other systems as applicable) for handing over to the private management contractor. This last step is necessary to allow the contractor to conduct their business and for JVA to be able to monitor the contractor's performance.

2. Involve farmers in the management of irrigation water distribution systems.

JVA is currently implementing pilot projects to identify mechanisms for involving farmers in the management of irrigation water distribution systems. These projects will be applied to all the irrigation projects in the Jordan Valley through the establishment of water users associations (WUA) in accordance to applicable laws.



Map showing irrigation projects in green, JVA boundaries in yellow

Performance Indicators:

1. A management contract is written.
2. A Program Management Unit is established.
3. A management contract is implemented.
4. Establishment of WUA's.

Objective 3

To reduce irrigation water demand and optimize the use of available water.

JVA will give more attention to both supply and demand management to meet customer expectations and requirements. Leaks and inefficient irrigation practices constitute a significant waste of water. JVA will work with customers to reduce wastage by improving its management and taking into account on-site storage and pumping practices, the application of water to crops and cropping patterns. JVA will also promote the principle of 'more crop per drop' to increase the productivity of irrigation water with regards to crops.

Conservation is a cultural concept. Reductions can only occur through a shared belief that conservation is good for the entire population. JVA, WAJ and MOA need to develop proactive plans to provide advice about on-farm use of water and communicate such ideas to the users.

Four strategies have been identified under this objective:

1. Establish a mechanism to periodically and consistently communicate information on water availability and quality to farmers.

Accurate information on water quality and availability is of the utmost importance to farmers. This information is the basis of their decision-making with regard to cropping and the timing thereof. JVA, in cooperation with MOA, will provide advisory services to farmers on irrigation methods and cropping issues.

2. Collaborate with other institutions to bring modern irrigation technologies to farmers.

A number of projects are underway in the Valley to investigate new irrigation methods. This research is looking at the use of marginal water as well as other issues. JVA is undertaking these studies in cooperation with a number of donor agencies and research centers.

3. Provide training on the use of modern irrigation systems.

Estimates for on-farm irrigation efficiency (water use efficiency) vary from 30%-50%.

Many farmers in the Valley have adopted modern efficient irrigation technologies and have increased production per unit of water used. However, many of these farmers are using modern irrigation systems of low efficiency resulting in water wastage.

JVA will with MOA and others concerned, initiate efforts to develop training programs for farmers on modern irrigation methods and highlight the benefits they can deliver. On-farm management is not in JVA's mandate, that is MOA's responsibility. However the actions called for here fall under water conservation.

4. Restructure water tariff mechanism such that price to farmers is sensitive to quantity and quality.

JVA will study the feasibility of restructuring its water tariff structure to reward those who reduce their water usage, and those who use marginal water. Additionally rates will increase as usage increases. This new tariff structure will be based on the principle of allowing JVA to recover its operation and maintenance costs.

Performance Indicators:

1. A communications program is implemented.
2. Economic yield per cubic meter of water.
3. A new tariff structure is in place.

Goal 3: Land Development and Management



Historic ruins on Dead Sea Coast

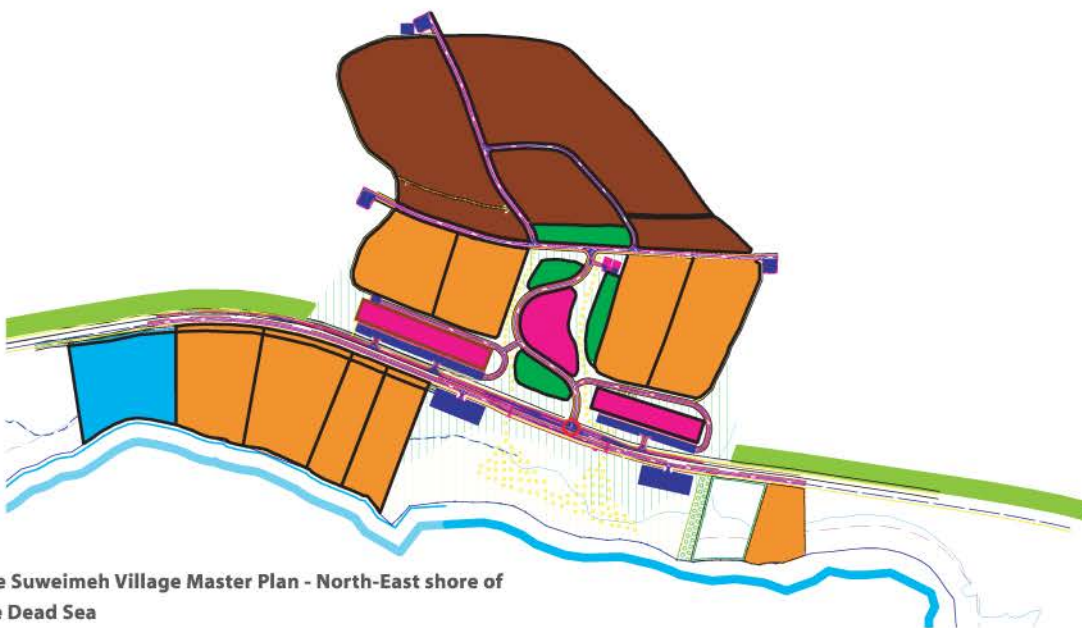
Goal Three: Land Development and Management

Develop, manage, regulate and protect land and related resources in the Jordan Valley in order to maximize their economic usefulness while taking into account both environmental and commercial consideration, and involve the private sector where appropriate.

Since its establishment, the JVA has had full responsibility for the ownership and distribution of land in the Jordan Valley, dividing it into agricultural units, distributing them, and planning villages, towns, housing projects, and infrastructure.

Under its new amended law of 2001, JVA will continue to have responsibility for land development, regulation and management in the Jordan Valley. As such, JVA will prepare plans for zoning, land development and investment and a master plan for the Valley. This is to be completed within three years of the issuance of the amended law.

The new law also mandated JVA to develop the infrastructure for tourism in addition to giving it responsibilities for environmental protection.



The Suweimeh Village Master Plan - North-East shore of the Dead Sea

Goal Three: Land Development and Management

Develop, manage, regulate and protect land and related resources in Jordan Valley in order to maximize their economic usefulness while taking into account environmental considerations, and involve the private sector where appropriate.

Objective 1

Develop a comprehensive land use plan.

Strategies:

1. Prepare a Land Use Master Plan for all land in the Valley.

Objective 2

To increase investment by the private sector in developing land in the Jordan Valley.

Strategies:

1. Develop specific tourism and industrial projects and involve the private sector in their management.
2. Develop infrastructure to encourage private sector development.
3. Market the Jordan Valley as an investment hub for tourism, industrial and commercial development in accordance with the Master Plan.
4. Streamline investment procedures for the private sector.

Objective 3

Regulate and manage land in the Jordan Valley.

Strategies:

1. Complete distribution and registration procedures for agricultural and housing land.
2. Ensure adherence to the Master Plan for all development to prevent encroachment and change of use.
3. Return land not allocated for use by JVA to the responsibility of the Department of Land and Survey.

Objective 4

Protect and ensure the sustainable use of natural resources in the Jordan Valley.

Strategies:

1. Protect the environment in the Jordan Valley.
2. Protect the Dead Sea.

Objective 1

Develop a comprehensive land use plan.

JVA will develop a comprehensive land use and master plans encompassing all land in its mandate. This will set the course for the future of the Jordan Valley. JVA has until July 2004 to complete this project.

One strategy has been identified under this objective:

1. Prepare a land use and master plan for all land in the Valley.

The first stage of any land use Master Planning is to classify the existing land use patterns, according to a standard classification system. This could be carried out in collaboration with the Department of Lands and Surveys and the Royal Jordanian Geographic Center.

JVA's Master Plan will set out guidelines for use of the land in the Jordan Valley. It will take into account existing land usage and also the potential for various types of use, including agricultural, industrial, housing, tourism, special economic zones, and others. The Plan will also take into account the existence and potential expansion plans of the municipalities in the Valley.

Other stakeholders, including government institutions, NGOs and private concerns, will be involved in this Master Planning process. These other agencies will be encouraged to ascertain their own land requirements for future projects in the Valley.

Once finalized, the master plan would be used to market the Jordan Valley and its potential for investment and development.

Performance Indicators:

1. A completed land use master plan for the Valley.

Goal 3: Land Development and Management

Objective 2

To increase investment by the private sector in developing land in the Jordan Valley.

JVA's amended mandate requires it to develop the Valley on a commercial basis, and stresses the promotion of tourism and the development of recreational facilities. JVA will encourage and facilitate private sector investment / involvement in the Valley to develop projects in tourism, industry, special economic zones, housing, archeological sites, as well as other ventures. This will be done in accordance to the Master Plan.

Four strategies have been identified under this objective:

1. Develop specific tourism and industrial projects and involve the private sector in their management.

There are numerous sites with good potential as investment projects, the Master Plan will identify these sites; JVA will construct projects on selected sites and then involve the private sector in their management and operation. This would be done to encourage the private sector to develop such projects.

2. Develop infrastructure to encourage private sector development.

A second area where JVA can assist the private sector is to commit to providing infrastructure for investment projects. These services would make investment projects more feasible and profitable for the private sector.

Recovering the cost of building the infrastructure would be realized directly through the sale and lease of land, and indirectly through the various fees and taxes that would be collected. There would also be a significant social benefit to the Valley, as a result of completing investment projects by way of the additional employment created for Valley residents and the stimulation of local commerce.

3. Market the Jordan Valley as an investment hub for tourism, industrial and commercial development in accordance with the Master Plan.

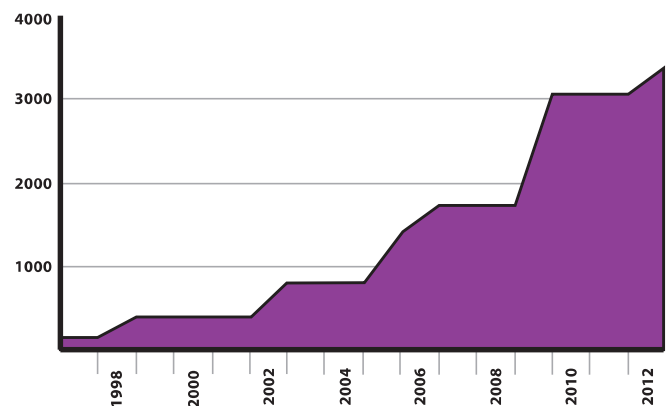
As with other areas seeking to attract investment, JVA will work with concerned agencies in Jordan to actively promote the area for investment. The Investment Unit's activities will be expanded to realize this.

4. Streamline investment procedures for the private sector to develop land.

JVA will assess the example of ASEZA and pursue to establish an Investor Service Office to help investors through the permitting process for projects. JVA will also work towards realizing economic and regulatory incentives for investment.

Performance Indicators:

1. Number of enquiries from private concerns regarding possible projects.
2. Establishment of an Investor Service Office.
3. Area of land leased or sold to the private sector.
4. Capital invested in the Jordan Valley.



Historic, present and projected number of hotel rooms in Jordan Valley

Objective 3

Regulate and manage land in the Jordan Valley.

JVA will regulate and manage land under its jurisdiction such that it protects the rights of citizens and investors in the Jordan Valley.

Three strategies have been identified under this objective:

1. Complete distribution and registration procedures for agricultural and housing land.

JVA has done a considerable amount of work in land distribution and registration over the years. However, this work has not been finalized. JVA will, by July 2004, complete all land registration procedures and cadastral mapping of the Valley lands.

2. Ensure adherence to the Master Plan for all development to prevent encroachment and change of use.

Sustainable development requires that a balance be found between available resources and development needs. JVA will continue to perform its regulatory role in collaboration with municipalities and concerned agencies in the area to prevent encroachment and change of use for land. This will be done in accordance to the master plan to preserve the unique features of the Jordan Valley.

3. Return land not allocated for use by JVA to the responsibility of the Department of Land and Survey.

As stipulated in its mandate, once JVA has completed its Master Plan and has identified which land it intends to develop or use, it must submit any remaining land to the Department of Lands and Survey's responsibility. This is to be completed by mid 2004.

Performance Indicators:

1. Number of land units not registered with DLS.
2. Elimination of unspecified land from JVA's responsibility.
3. Number of violations of land use regulations.

Objective 4

Protect and ensure the sustainable use of natural resources in the Jordan Valley.

Sustainability of land use in the Jordan Valley requires the protection of available resources. This will maintain the area as an attractive investment hub in the long and medium terms.

Two strategies have been identified under this objective:

1. Protect the environment in the Jordan Valley.

With increasing development and land use, negative environmental effects on the land and related resources will increase. JVA is mandated to develop, protect and improve the environment in the Valley. Cooperation with the Ministry of the Environment and other concerned agencies will be sought to achieve this. Priority activities in this regard include protecting the environment, water and agricultural land from agricultural waste and increasing awareness among the citizens of the benefits of a healthy environment to the region and to the local community.

2. Protect the Dead Sea.

The Dead Sea is considered to be a globally unique natural phenomenon. The decline of the water level in the Sea is a source of growing international and local concern, and affects the long term sustainability of both industrial and tourism activities in the area. JVA, in conjunction with other regional agencies, will consider actions to address this issue.

Performance Indicators:

1. Number of complaints regarding pollution.
2. Presence of environmental awareness programs.
3. Presence of a plan to protect the Dead Sea as an environmental issue.

Goal 4: Organizational Performance Improvement and Development



Goal Four: Organizational Performance Improvement and Development

Develop and reorganize JVA to enable it to better achieve its new mission and improve its performance and effectiveness in providing quality service to its stakeholders.

To complete its new mission effectively, JVA must restructure itself and improve its performance and efficiency to better serve those who benefit from its functions.

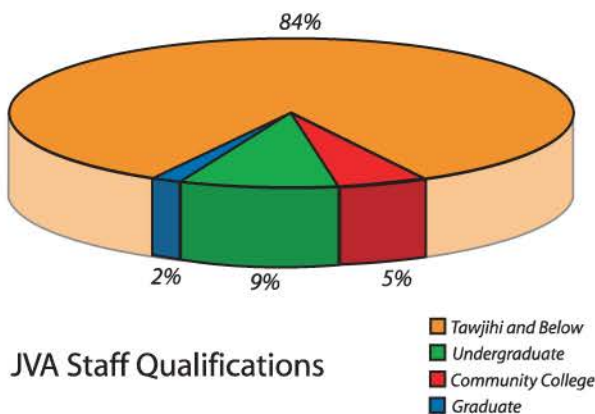
Goal 4 details a set of objectives and their respective strategies that, when implemented, will effect the needed changes to realize the strategic plan. Essentially, with the successful implementation of Goal 4, JVA will become a more effective and efficient organization that is responsive to its stakeholders' needs.

Three outcomes will emerge from completing this goal:

Outcome 1: A new law is drafted (or major amendments are made to the current law) and ratified. These changes will remove any ambiguity in the current law and remove any overlap between JVA and other organizations.

Outcome 2: A new organizational structure is in place that reflects the new functions as detailed in the new Strategic Plan. Also, a strategic planning unit will be institutionalized in JVA to allow JVA to monitor and update the Strategic Plan.

Outcome 3: The overhaul of JVA's human resources practices. These are in need of immediate attention. It is a fact that JVA has too many under qualified personnel and too few qualified people. This is illustrated by the graph to the left which shows the profile of JVA staff. Notable is the high number employees with sub-secondary school education.



JVA Staff Qualifications

■ Tawjihi and Below
■ Undergraduate
■ Community College
■ Graduate

Furthermore, those staff members who are qualified are approaching retirement, with no obvious successors to replace them. This will lead to an experience vacuum developing over the next few years.

Goal Four: Organizational Performance Improvement and Development

Develop and reorganize JVA to enable it to better achieve its new mission and improve its performance and effectiveness in providing quality services to its stakeholders.

Objective 1

To enable JVA to carry out its new mission by developing a new legal framework.

Strategies:

1. Draft and ratify a new law that supports the new Strategic Plan.

Objective 2

To enable JVA to carry out its new mission by developing a new institutional framework.

Strategies:

1. Restructure the organization to reflect the new mission to be carried out.
2. Implement and institutionalize the strategic planning process.

Objective 3

To improve JVA's efficiency and effectiveness by adopting modern technical, managerial and financial methods and systems.

Strategies:

1. Streamline administrative procedures to reduce bureaucracy.
2. Train existing managers on the use and utilization of MIS.
3. Create and sustain a customer-service mentality.
4. Adopt private sector practices in management, finance and control.
5. Formulate plans to safeguard databases and archive information.
6. Enhance the communications and data infrastructure to ensure timely access to data.

Objective 4

To improve JVA's human resources management practices to enhance staff efficiency and performance and increase job satisfaction.

Strategies:

1. Implement staff training and development programs.
2. Develop job descriptions including performance indicators .
3. Implement objective recruitment policies that match qualifications to job description.
4. Develop a succession plan, especially for high-level jobs.

JVA will develop a new human resources strategy that benefits from and develops existing expertise in JVA and works to retain qualified people. It will also seek to recruit staff with the necessary qualifications to successfully carry out its new mission.

Objective 1

To enable JVA to carry out its new mission by developing a new legal framework.

As part of the Strategic Planning Program, a legal study was conducted that identified a number of issues which need to be resolved. Critical findings in this study included:

- The recent amendments to the JVA law removed from JVA some of its historic responsibilities, such as rural development, and added some new ones.
- There is a need to remove overlap between JVA's mandate and those of other organizations (this overlap is evident between JVA and WAJ, MOT, MOE and DLS).

- There is a need to clarify ambiguous legal issues, such as what is meant by "develop the environment", and the definition of "commercial basis."
- There is a lack of clarity regarding the implementation of some of the policies attributed to JVA by the law, for example JVA's role in environmental protection and in the development of Wadi Araba.

Attention must therefore be given to clarifying the law; both to remove the mandate overlap between JVA and other agencies, and to better enable JVA to implement the policies and plans under its own mandate.

Goal 4: Organizational Performance Improvement and Development

One strategy has been identified under this objective:

1. Draft and ratify a new law that supports the new Strategic Plan.

These amendments will address a number of issues in order that a clear path for future action is set. Overlap between JVA's mandate and that of other government organizations will be removed. JVA's role with regard to environmental protection will be defined, as will JVA's authority regarding private sector participation, and operating on a commercial basis. Furthermore, the meaning of "commercial basis" will be explained.

Concerning the transfer of water to WAJ, the mechanism for compensating JVA for operational costs arising from the provision of this water will be addressed.

Performance Indicators:

1. A new law is drafted and ratified.

Objective 2

To enable JVA to carry out its new mission by developing a new institutional framework.

The amendments to the JVA law have removed some of JVA's historic responsibilities, and added some new ones. In addition, these amendments encourage JVA to carry out its operations on a more commercial basis. In order to effectively carry out its new mandate, JVA will need to reorganize and evolve. JVA will restructure itself and reassess its operations to ensure that its employees carry out its functions and responsibilities efficiently. A change in the philosophy will be realized to introduce a customer-service mentality and bring commercial awareness into focus in all areas.

Two strategies have been identified under this objective:

1. Restructure the organization to reflect the new mission to be carried out.

The new Strategic Plan includes a new organizational structure that is closely aligned with JVA's new mission, especially as it relates to private sector participation, investment promotion, customer service, land use and environmental protection.

This new organizational structure facilitates internal communications, empowers administrative and operational units and decentralizes decision-making. It also emphasizes the regulatory and supervisory roles for JVA's internal operations as well as the private sector.

2. Implement and institutionalize the strategic planning process.

JVA will institutionalize Strategic Planning and make it one of JVA's main functions. As such, it will monitor, revise and update the Strategic Plan.

Performance Indicators:

1. A new organizational structure is developed and implemented.
2. Establishment of a Strategic Planning Unit.

Objective 3

To improve JVA's efficiency and effectiveness by adopting modern technical, managerial and financial methods and systems.

JVA collects, stores, uses and disseminates and analyzes a large volume of data concerned with water resources, water balance, seasonal planning and forecasting, irrigated land and water consumption. Additionally, JVA has a modern financial accounting system, as well as HR and payroll systems and a geographic information system (GIS) that serve all JVA units. Enhancing these IT systems and ensuring that they are used effectively in the decision making process in JVA is essential.

Six strategies have been identified under this objective:

1. Streamline administrative procedures to reduce bureaucracy.

JVA will modernize its internal procedures to reduce costs, promote investment, improve customer relations and improve its financial condition. This modernization will also reduce bureaucracy and lack of transparency, both of which would otherwise be impediments to the aspirations of the Strategic Plan.

2. Train existing managers on the use and utilization of MIS.

There is a great deal of information that is generated on daily bases by JVA operations. This information is the basis upon which decisions are made by management. JVA will therefore train its technical and managerial staff on how to best utilize its information systems.

3. Create and sustain customer-service mentality.

JVA will adopt customer-oriented approach to effectively fulfill its new mission. This will require training staff, monitoring and setting up customer feedback mechanisms.

4. Adopt private sector practices in management, finance and control.

JVA will adopt a corporate approach in order to fulfill its new mission. This includes giving priority to the use of financial practices used in the private sector and implementing information systems for human resources management and supply chain management, while striving to recover operational costs.

5. Formulate plans to safeguard databases and archive information.

JVA will develop plans for maintaining and protecting its valuable databases from risk, such as natural disasters and unauthorized access and use.

6. Enhance the communications and data infrastructure to ensure timely access to data.

Data is a key element in making decisions. For data to be useful, it has to be made available and processed in a timely manner. JVA will expand and enhance its communication infrastructure in order to give JVA management secure and effective accessibility to key data.

Performance Indicators:

1. A BPR project is completed.
2. Customer satisfaction index numbers improving.
3. P&L Statements, Balance Sheets are used routinely.

Goal 4: Organizational Performance Improvement and Development

Objective 4

To improve JVA's human resources management policies to increase job satisfaction and enhance staff efficiency and performance.

An internal environment assessment for JVA identified four main human resource management issues, which prevent JVA from being more productive and efficient:

- Overstaffing in daily employees.
- Shortage of qualified staff.
- A large number of JVA staff, especially in top management, that are approaching retirement.
- Deficient human resource management policies.

This has resulted in inefficiency of operations and unnecessary incurred costs. JVA will therefore rethink its human resources strategy with regard to clarifying job responsibilities, matching tasks with qualifications, institutionalizing training and staff development, implementing an appraisal and incentive scheme, and planning ahead to deal with staff retirement and redundancies. By enhancing the workplace environment in this way, JVA will be in a better position to attract and retain qualified and experienced personnel, and ensure that staff is sufficiently motivated and enthusiastic.

Four strategies have been identified under this objective:

1. Implement staff training and development programs

2. Develop job descriptions including performance indicators.

New job descriptions will be developed that empower and motivate employees, and decentralize the decision-making responsibility. This will lead to a more responsive and nimble organization and increase job ownership and satisfaction.

This kind of independence however will be coupled with relevant performance indicators and an objective and equitable employee assessment mechanism.

3. Implement objective recruitment policies that match qualifications to job descriptions.

JVA will implement new recruiting policies that match qualifications to the position to be filled. Additionally, hiring of unskilled workers will be decreased.

4. Develop a succession plan, especially for high-level jobs.

A large number of JVA staff, especially in top management, are approaching retirement. A replacement /succession plan for retiring staff will be implemented to ensure that retiring managers are replaced by appropriately experienced personnel. Additionally, middle managers will be trained and given a wide range of experiences to equip them for promotion.

Performance Indicators:

1. A staff-training program is in place.
2. New job descriptions developed.
3. A succession plan is in place for senior staff